SECTION ONE: UTILITY REGULATION AND THE RATE-SETTING PROCESS

ALLOCATING THE COST OF CONSTRUCTING EXCESS CAPACITY: "WHO WILL HAVE TO PAY FOR IT ALL?"

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In 1883, economist and sociologist William Graham Sumner asked the following rhetorical question about government regulatory and benefit programs: "Who and where is the Forgotten Man in this case, who will have to pay for it all?" A century later, state public utility commissions across the nation are being forced to answer the same question in a different context. More than thirty nuclear power plants either have commenced operation since 1982 or are scheduled to come on line in the near future. In many cases, the cost of constructing these plants has far exceeded the original estimates by the plant's owners due to factors such as high inflation rates and increasingly stringent environmental and safety regulations during the past decade. If the owners of these new plants are permitted to recover their construction costs from customers as soon as the plants begin operating, electricity rates will increase sharply.

At the same time, because of rising fuel costs, increased conservation practices, and economic recession, customer demand for electricity has not increased as rapidly as expected, and in some instances demand has actually fallen. As a result, generating capacity, the construction of which was planned and commenced years ago, is not currently needed to satisfy customer demand. The issue facing state regulators is whether a utility with excess generating

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1 W. SUMNER, WAR AND OTHER ESSAYS 267 (1911).

2 For a list of these plants, see Komanoff, Assessing the High Costs of New Nuclear Power Plants, 114 PUB. UTIL. FED., Oct. 11, 1984, at 33, 36.


4 See id. at 504 n.43. See generally Schwartz, Inflation and Utility Rate Regulation, 1982 UTAH L. REV. 89.


6 See Pierce, supra note 3, at 502-06.
capacity should be permitted to recover immediately the cost of constructing that capacity from its ratepayers or whether the utility's investors should be denied recovery of the cost of constructing, financing, and maintaining the excess capacity until the plant is needed to provide service.

In 1984, the Kansas legislature provided new authority to the Kansas Corporation Commission (the "KCC") to address the treatment of excess capacity in utility ratemaking proceedings. In anticipation of the completion of the Wolf Creek nuclear power plant in Burlington, Kansas, the legislature enacted House Bill No. 2927, sometimes known as the rate shock bill. This statute is the most comprehensive and detailed state statute in the nation concerning the regulatory consequences of constructing excess capacity. Despite its detail, however, the rate shock bill grants to the KCC broad discretion to determine whether a utility acted prudently in constructing and operating property devoted to providing customer service. It also imposes relatively few constraints on the agency in defining excess capacity. Finally, the statute permits the KCC to choose from a wide range of options in the event that it determines a utility has acted imprudently or has constructed excess capacity.

Several of the papers in this symposium are devoted to a discussion of the merits of the rate shock bill. One of these papers reflects the views of a state legislator who helped to draft the bill concerning the purposes of the legislation and the history of its enactment. The next two papers provide contrasting perspectives of the need for and consequences of applying the rate shock bill from two of the groups with the most at stake in the debate over the proper treatment of excess capacity - the utilities and the ratepayers. This part of the symposium concludes with an economic analysis of the short- and long-term implications of the rate shock bill for the Kansas economy in general and the electric utility industry in particular.

This paper serves as an introduction to the four that follow it. It begins by providing a brief description of the method by which state public utility commissions determine the maximum rates that regulated utilities can charge. The second section of the paper discusses the potential effects of the construction of the Wolf Creek nuclear power plant on electricity rates in the service area of the plant. This discussion provides an insight into the reasons for the enactment of the rate shock bill, which is the subject of the third section of this paper. The paper describes how the new legislation supplements the KCC's pre-existing ratemaking authority and the areas in which the legislature has vested broad discretion in the agency. The fourth and final section of this paper reviews recent decisions by other state public utility commissions involving excess capacity and related issues. This analysis will identify the issues and the range of regulatory responses to these issues that are likely to arise in the Wolf Creek rate increase proceedings and in future rate cases affected by the rate shock bill.

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9 See Charnoff, supra note 5.
10 See Wiens, Citizen Perspective on the Wolf Creek Rate Case, 33 Kan. L. Rev. 469 (1985).
bill. This section of the paper also compares the provisions of the rate shock bill to the authority granted to other state commissions. The paper concludes that, despite its apparently broad delegation of power to the KCC, the rate shock bill is not a drastic departure from accepted ratemaking practice. The bill simply makes explicit much of the authority already implied by other state regulators from far more general and traditional grants of legislative authority.

I. THE CALCULATION OF MAXIMUM UTILITY RATES

Every state legislature has delegated to an administrative agency the authority to establish maximum rates for retail sales of electric power.\textsuperscript{15} In Kansas, this authority has been vested in the KCC.\textsuperscript{13} No electric utility subject to the jurisdiction of the state public utility commission ("PUC") may increase its rates without filing an application or tariff with the PUC requesting permission to implement the increase.\textsuperscript{14}

In setting maximum rates for regulated utilities, state PUCs must act within the scope of authority that the legislature delegated to them. Most state legislatures have provided PUCs with a general mandate to establish "just and reasonable" rates\textsuperscript{16} and to prohibit utilities from charging unreasonably discriminatory or unduly preferential rates.\textsuperscript{18} In setting rates, state PUCs are governed both by their enabling statutes and by the due process clause of the fourteenth amendment to the federal constitution.\textsuperscript{17} To avoid depriving the utility of its property without due process, the rates set by the PUC must permit the utility to maintain its financial integrity and to attract sufficient capital to properly discharge its obligations to serve the public.\textsuperscript{19}

A PUC normally implements its mandate to establish just, reasonable, fair, and constitutionally sufficient rates through a two-step process.\textsuperscript{19} First, the PUC calculates an aggregate revenue sufficient to meet the utility's needs dur-

\textsuperscript{15} In most instances, sales of electric energy at wholesale in interstate commerce are subject to federal regulation by the Federal Energy Regulatory Commission under the Federal Power Act. See 16 U.S.C. § 824(b)-(d) (1982). But see Arkansas Elec. Cooper. Corp. v. Arkansas Pub. Comm'n, 103 S. Ct. 1905 (1983) (state may regulate wholesale rates charged by rural electric cooperative to its member retail distributors, all of whom are located within that state).


\textsuperscript{16} See, e.g., id. § 66-117(e).

\textsuperscript{18} See, e.g., id. § 66-107.

\textsuperscript{18} See, e.g., id.


ing the period covered by the utility's rate increase request. This revenue requirement permits the utility to recover from its customers operating expenses (like labor, fuel, and maintenance costs) that it has prudently incurred in providing service that directly benefits the utility's customers. In addition, the revenue requirement affords the utility the opportunity to make a profit on its investment, in an amount equal to its rate base multiplied by a specified rate of return. The rate base is the amount of money that the utility has invested in capital assets (like generating plant and transmission lines) that it uses to provide service to its customers. Each year the utility depreciates its capital assets to reflect their deterioration in value over time. The amount depreciated is passed through to the utility's customers as a recoverable operating expense, which permits the utility to recover the amounts that it has actually invested in service-producing assets. The utility is also given the right to make a profit on its investments by including in the revenue requirement the product of the value of the utility's capital assets remaining after each year's depreciation and the applicable rate of return. A utility's rate of return is a composite figure based on the value of outstanding bonds, the rate of return due to preferred stockholders, and the rate of return presently being paid on common equity. The PUC, determining the appropriate rate of return, attempts to provide the utility with a return equal to that being made on investments on other businesses with similar risks.

Second, the PUC determines the appropriate allocation of the utility's aggregate revenue requirement among its customers. The PUC allocates responsibility for different portions of the revenue requirement among customer classes (industrial, commercial, and residential) by formulating a rate structure, while the rate design allocates responsibility within a customer class.

II. THE EFFECT OF THE WOLF CREEK PLANT ON UTILITY RATES

Based in part on a study conducted in 1972 indicating that nuclear-powered generating plants would be a more economical means of meeting future demand than coal-fired generation, Kansas Gas and Electric Company ("KG&E") decided to build a pressurized water nuclear reactor plant in Wolf Creek near Burlington, Kansas. Work on clearing the site began in February

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13 See A. Aman, ENERGY AND NATURAL RESOURCES LAW 3-95 (1983).
15 See A. Aman, supra note 23, at 3-23.
16 See Kansas State Corporation Commission, Questions and Answers About Wolf Creek, Sept. 7, 1984, at 3-4 (on file with the Kansas Law Review) [hereinafter cited as Wolf Creek Questions].
1977, twenty-one months behind schedule.\textsuperscript{27} When KG&E and its principal partner, Kansas City Power & Light Co. ("KCP&L") had first announced plans to construct the Wolf Creek plant in February 1973, they estimated that the plant would cost five hundred million dollars.\textsuperscript{28} By the time site clearing began, however, this estimate had increased to 1.4 billion dollars.\textsuperscript{29} By the time the plant neared completion in the winter of 1984-85, construction costs had mounted to 2.9 billion dollars.\textsuperscript{30}

The KCC is prohibited by statute from including in a utility's rate base the value of any property "which has not been completed and dedicated to commercial service," unless the utility will complete construction of that property within one year.\textsuperscript{31} As a result, the KCC did not include any of the nearly three billion dollar construction costs of the Wolf Creek plant in the rate bases of the plant's owners while the plant was under construction. When construction of the plant neared completion, the three owners filed rate increase applications with the KCC to reflect their share of construction costs in the rate base. KCP&L requested a one year rate increase of fifty-two percent. To cushion the "rate shock"\textsuperscript{32} facing customers forced to absorb a one-year increase of more than fifty percent, KCP&L alternatively requested permission to phase its construction costs into the rate base over a four-year period, amounting to a total rate increase of 61.5 percent. KG&E requested a five-year, phased-in increase of eighty-six percent. The plant's third owner, Kansas Electric Power Cooperative, Inc. ("KEPCO"), requested a forty percent increase for the first year of the plant's operation.\textsuperscript{33} The customers of all three utilities thus faced the prospect of sharp rate increases when the Wolf Creek plant began providing service.

III. The Kansas Rate Shock Bill

Anticipating the inclusion of Wolf Creek's construction costs in the three utilities' rate bases, both the KCC and the state legislature took steps to mitigate the resulting "rate shock" for ratepayers served by the plant. At the beginning of 1984, the statute authorized the KCC to

ascertain the reasonable value of all property of any . . . public utility . . .

\textsuperscript{27} See id. at 5. The delay in site clearing was caused by delays in the Nuclear Regulatory Commission's licensing proceedings and an industry-wide moratorium on nuclear plant construction stemming from questions about the reprocessing of nuclear fuel. See id. at 5-6.

\textsuperscript{28} See id. at 7.

\textsuperscript{29} See id.; K.C. Star, Aug. 26, 1984, at 16A.

\textsuperscript{30} See K.C. Times, Feb.1, 1985, at B-1, col. 1. See also Wolf Creek Questions, supra note 26, at 7 ($2.9 billion cost estimate assuming plant completion by April 15, 1985, although final costs in excess of $3 billion are possible).


\textsuperscript{33} See K.C. Times, Nov. 9, 1984, at B-1, col. 1.
used or required to be used in its services to the public within the state of Kansas, whenever it deems the ascertainment of such value necessary in order to enable the [KCC] to fix fair and reasonable rates. . . .

The KCC supported legislation that would have permitted it to include in the rate base only the value of "whatever fraction or percentage" of utility property is used or required to be used in serving the public. This amendment was intended to clarify the KCC's authority to exclude excess plant generating capacity from the utility's rate base. Doubts concerning that authority arose from a 1976 decision of the Kansas Supreme Court questioning the KCC's authority "to determine that a certain facility is partially used or required to be used and partially not." The bill that the KCC endorsed would also have permitted the agency to adjust a utility's revenue requirement to reflect (1) imprudent plant acquisition, construction, or operation; (2) inefficient plant operation; or (3) capacity in excess of system requirements. Finally, the bill would have authorized the KCC to phase in the costs of constructing excess

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36 Kansas Gas & Elec. Co. v. State Corp. Comm'n, 218 Kan. 670, 674, 544 P.2d 1396, 1400 (1976). The KG&E decision, however, did not involve the construction of excess capacity. Instead, the utility challenged the KCC's authority to exclude from its rate base for a two-month period part of a plant that was temporarily operating at a low percentage of capacity due to mechanical problems in the plant's antipollution control system. See id. The court specifically distinguished the excess capacity situation, stating that its refusal to permit partial exclusion of the plant's value from the rate base in this case did not mean that

a unit or segment of a facility . . . whose production is far in excess of present or near future needs, or for any present or near future needs, or for any valid reason, is not used or required to be used and can be set off or separated from a facility otherwise used, cannot be excluded from the rate base under [Kan. Stat. Ann. § 66-128 (1980)]. But that is not the case here. The [KCC] made no determination that the La Cygne plant or any unit or part thereof is not used or required to be used and there is no evidence to support such a finding. . . . There is no evidence or any contention that the capacity of the La Cygne plant was far in excess of the company's needs or that it was an imprudent experimental venture. The evidence is to the contrary.

Id. (emphasis added). This statement seems to support the KCC's statutory authority to exclude excess capacity from the rate base, at least where the excess capacity can be "setoff or separated" from the rest of the utility's capacity. See also id. at 676, 544 P.2d at 1401 (quoting 73 C.J.S. Public Utilities § 18 (1974)) ("property which is partially . . . devoted to a private use, as distinguished from the public service, should be excluded from the rate base to the extent of such use. . . . In determining whether excess plant capacity shall be included in the rate base, . . . the utility must bear the burden of an unreasonable extension of its plant and the risk that portions of it prudently acquired may become obsolete or not useful . . ."). The court also agreed with the KCC's finding in the KG&E case that "regulatory agencies cannot grant carte blanche authority to construct huge plants just barely more than experimental in nature, and allow the company to charge the expense entirely to the ratepayer — at least not until it works to a substantial benefit to the ratepayer or is within reasonable limits of anticipation of benefit." Finally, the court endorsed the rationale expressed by the North Dakota Supreme Court for excluding excess capacity from the rate base: "The anticipated patrons of the company [seeking a rate increase] cannot be burdened in order to provide for possible needs of other patrons in other communities some time in the future." 218 Kan. at 678, 544 P.2d at 1403 (quoting Public Serv. Comm'n v. Montana-Dakota Util. Co., 100 N.W.2d 140, 150 (N.D. 1959).
capacity to moderate rate shock to the utility’s customers.  

The rate shock bill ultimately adopted, House Bill No. 2927, provides the KCC with all of this authority, but in much greater detail. The bill, initially drafted by Representative Robert Vancrum, includes the same provision set forth in the KCC’s version permitting the agency to include in a utility’s rate base only “whatever fraction or percentage” of property the agency deems appropriate. The rate shock bill also specifies that the KCC can include in the rate base only property that is “used and required to be used” in serving the public. The statute had entitled the utility to a return on property “used or required to be used,” and the Kansas Court of Appeals had construed this “standard of includability [as] disjunctive; property must be included in rate base if it is either used or required to be used; i.e., if not in actual use, its use must be necessary.” By changing the “or” to “and,” a formulation included in most other state legislation, the legislature intended to require that property be both used and required to be used to be included in the rate base.

The rate shock bill also adds ten new sections to the old statutory section governing valuation of the rate base. The first of these sections states that the remaining provisions dealing with the prudence of the utility’s actions and the treatment of excess capacity do not limit the KCC’s authority “to review and evaluate the efficiency or prudence of any actions, including acquisition of excess capacity, or operating practices of any public utility . . . for the purpose of establishing fair and reasonable rates . . . .”

The remaining provisions of the bill authorize, but in most instances do not compel, the KCC to reduce the revenue requirement, the value of the rate base, or the rate or return, or to defer recovery of costs by the utility, in the event the KCC finds that the utility acted imprudently or built or acquired excess capacity. If the KCC finds that all or a portion of the value of the utility’s property is not used and required to be used, it may defer inclusion of that value in the rate base and instead require the utility to phase in that value over a period determined by the agency. In the event of such a deferral, the KCC may permanently exclude from the rate base any carrying or financ-

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28 See id.
29 See Vancrum, supra note 8, at 476.
32 See supra text accompanying note 34.
34 Many states provide that property that is “used and useful” must be included in the rate base. See id. The “used and useful” test is discussed infra at notes 111-73 and accompanying text.
35 See Vancrum, supra note 8, at 476. See also Moline, supra note 19, at 514.
37 Id. § 66-128a. The rate shock bill also applies to common carriers. See id. See also id. § 66-128c (authorizing the KCC to evaluate efficiency or prudence of acquisition, construction, or operating practices in determining the reasonable value of the rate base); id. § 66-128e (negating intention to limit the KCC’s authority to adjust revenue requirements to the extent the utility’s rate increase requests results from inefficiency or lack or prudence).
38 See id. § 66-128b.
ing costs incurred during the deferral period.\footnote{See id.}

If the KCC finds that the utility incurred any acquisition, construction, or operating costs due in whole or in part to a lack of efficiency or prudence, or for the acquisition or construction of excess capacity, it may exclude those costs from the utility's revenue requirement.\footnote{See id. § 66-128c. The KCC may also adjust the revenue requirement if it finds that an electric utility has imprudently borrowed funds in order to pay dividends, thereby increasing the utility's revenue requirement. See id. § 66-128e. See also id. § 66-128j (authorizing the KCC to reduce the revenue requirement of a utility that (1) inefficiently or imprudently sells electric power to customers other than its retail customers or sells or retires a facility from service, or (2) causes a reduction of electric power or generating capacity available to its customers by engaging in such a sale of power or a sale or retirement of facility).} The agency may also prohibit or reduce the return on costs incurred in constructing, maintaining, or operating excess capacity.\footnote{See id. § 66-128c.}

The statute mandates KCC action only when the KCC finds that costs were attributable to investment in excess capacity resulting from imprudence in facility planning\footnote{The KCC may not find a lack of prudence in capacity planning for a facility deemed to have excess capacity if a siting permit authorizing construction of the facility was issued by the KCC, see KAN. STAT. ANN. §§ 66-1,158 to -1,169c (1980), before the enactment of the rate shock bill. See KAN. STAT. ANN. § 66-128e (Supp. 1984). No such permit was issued for the Wolf Creek plant. See Wolf Creek Questions, supra note 26, at 5.} or in plant acquisition, construction, or operation.\footnote{See KAN. STAT. ANN. § 66-128e (Supp. 1984). This section of the statute is poorly drafted. It is not clear, for example, whether the section applies to all costs incurred due to lack of prudence in plant acquisition, construction, or operation, or only such costs as were also invested in excess capacity. The latter meaning, which is the construction given to § 6 of the rate shock bill in the text of this article, would be clearer if the word "either" followed the phrase "investment in excess capacity which" instead of following the word "attributable."} In such a case, the agency must forever exclude from the rate base the costs of carrying or financing the excess capacity investment.\footnote{The statute also compels the KCC to exclude from the rate base the reasonable value of a nuclear fission power plant determined to be excess capacity if the KCC finds that there is no "proven technology or means for the disposal of high-level nuclear waste" which is available for use at or by the plant. See id. § 66-128h(a). This provision was initially intended to force the closing of the Wolf Creek plant, see Vancrum, supra note 8, at 477, since the federal government has not yet developed or approved a permanent disposal site or process for high-level nuclear waste. See generally, Nuclear Waste Policy Act of 1982, Pub. L. No. 97-425, 96 Stat. 2201 (1983) (codified at 42 U.S.C. §§ 10101-10226 (1982)); Pacific Gas and Elec. Co. v. State Energy Resources Conservation & Dev. Comm'n, 103 S. Ct. 1713 (1983) (rejecting contention that California statute imposing a moratorium on the construction of nuclear power plants in the state until a state agency finds that the federal government has approved a demonstrated technology or means for the disposal of high-level nuclear waste is preempted by federal legislation). The provision was essentially nullified, however, by an amendment defining "technology or means for the disposal of high-level nuclear waste" to include temporary on-site storage of the waste. See KAN. STAT. ANN. § 66-128h(b) (Supp. 1984).} The KCC can not permit the utility to recover those carrying costs or operating expenses in any other...
manner.\textsuperscript{55}

In virtually all cases in which the statute authorizes the KCC to adjust the utility's revenue requirements, rate base, or rate of return, the agency's authority is triggered by a finding of excess capacity, lack of prudence, or both. The statute defines both of these terms, but in a manner that leaves the agency with a great deal of discretion. "Excess capacity" is defined as "any capacity in excess of the amount used and required to be used to provide adequate and reliable service to the public within the state of Kansas as determined by the [KCC]."\textsuperscript{56} The agency obviously has considerable leeway to decide whether capacity is "required to be used" in a particular case, and to decide what constitutes "adequate and reliable service."\textsuperscript{57} The legislature was even less precise in guiding the KCC on the meaning of "prudence." The statute lists eleven factors, not all of which are consistent with one another,\textsuperscript{58} that the agency must consider in determining whether, for the purposes of assessing the reasonable value of the rate base, the utility acted prudently.\textsuperscript{59} Moreover, the eleven listed

\textsuperscript{55} See id.
\textsuperscript{56} See id. § 66-128c.
\textsuperscript{57} Other state PUCs have had considerable difficulty formulating a precise definition of excess capacity, particularly in determining what constitutes an adequate reserve margin above the level of capacity needed to meet peak demand. See infra notes 116-47 and accompanying text.
\textsuperscript{58} See Shapiro, \textit{supra} note 12, at 496.
\textsuperscript{59} The factors bearing on prudence are:

(1) A comparison of the existing rates of the utility with rates that would result if the entire cost of the facility were included in the rate base for that facility;

(2) a comparison of the rates of any other utility in the state which has no ownership interest in the facility under consideration with the rates that would result if the entire cost of the facility were included in the rate base;

(3) a comparison of the final cost of the facility under consideration to the final cost of other facilities constructed within a reasonable time before or after construction of the facility under consideration;

(4) a comparison of the original cost estimates made by the owners of the facility under consideration with the final cost of such facility;

(5) the ability of the owners of the facility under consideration to sell on the competitive wholesale or other market electrical power generated by such facility if the rates for such power were determined by inclusion of the entire cost of the facility in the rate base;

(6) a comparison of any overruns in the construction cost of the facility under consideration with any cost overruns of any other electric generating facility constructed within a reasonable time before or after construction of the facility under consideration;

(7) whether the utility having an ownership interest in the facility being considered has provided a method to ensure that the cost of any decommissioning, any waste disposal or any cost of clean-up of any incident in construction or operation of such facility is to be paid by the utility;

(8) inappropriate or poor management decisions in construction or operation of the facility being considered;

(9) whether inclusion of all or any part of the cost of construction of the facility under consideration, and the resulting rates of the utility therefrom, would have an adverse economic impact upon the people of Kansas;

(10) whether the utility acted in the general public interest in management decisions in the acquisition, construction, or operation of the facility;

(11) whether the utility accepted risks in the construction of the facility which were inappropriate to the general public interest to Kansas;
factors are "without limitation"; the KCC must also consider "any other fact, factor, or relationship which may indicate prudence or lack thereof as that term is commonly used."

The rate shock bill provides more definitive guidance on the prudence of construction costs in one situation. The legislation establishes a presumption that the portion of the cost of a plant which exceeds two hundred percent of its original cost estimate was incurred due to a lack of prudence. Unless the utility rebuts that presumption by a preponderance of the evidence, the KCC may exclude that portion of the plant’s cost from the rate base.

In summary, the rate shock bill grants broad discretion to the KCC to deal with the construction of excess capacity. The statute provides relatively little guidance in defining excess capacity and leaves the agency free to consider

KAN. STAT. ANN. § 66-128g(a) (Supp. 1984).

**Id.**

**Id.** § 66-128g(a)(12).

Since the Wolf Creek plant was constructed without obtaining an advance permit under the Kansas Electric Generation Facility Siting Act, KAN. STAT. ANN. §§ 66-1,159 to -1,169c (1980), the “original cost estimate” of the plant is its “definitive estimate.” See KAN. STAT. ANN. § 66-128g(b) (Supp. 1984). The first line-by-line estimate of the plant’s construction costs, released by KG&E in 1976, was $1.04 billion. See Wolf Creek Questions, supra note 26, at 7. The “definitive estimate” was made shortly thereafter, in 1977. See In re Kansas Elec. Power Coop., Inc., No. 120-783-U, slip op. at 22 (Kan. St. Corp. Comm’n, Oct. 22, 1980). Construction costs have since risen to nearly $3 billion. See supra note 30 and accompanying text.

See KAN. STAT. ANN. § 66-128g(b) (Supp. 1984).

See id. §§ 66-128g(b), -128c.

Some have anticipated an attack on the constitutionality of the rate shock bill in the event the KCC decides to exclude some of the Wolf Creek plant’s construction costs from the rate base. See, e.g., Charnoff, supra note 5, at 485; Vancrum, supra note 8, at 479. Such a due process challenge, however, will be difficult to sustain. The Supreme Court has indicated that the due process clause does not require a utility commission, in valuing the rate base,

to include the market or book value of [property] not presently in use, unless the time for using [it] is so near that [it] may be said, at least by analogy, to have the quality of working capital . . . . [Property] bought with income . . . . and . . . paid for in last analysis through the contributions of consumers, ought not in fairness to be capitalized until present or imminent need for use . . . . shall have brought [it] into the base upon which profits must be earned. To capitalize [it] sooner is to build upon assets held in idleness to abide the uses of the future.

Columbus Gas & Fuel Co. v. Public Util. Comm’n, 292 U.S. 398, 406-07 (1934). See also Los Angeles Gas & Elec. Corp. v. Railroad Comm’n, 289 U.S. 287, 306 (1933) (Although original investment cost is relevant in determining the value of the rate base, “[t]he public have not underwritten the investment.” Accordingly, the original cost of the plant may be adjusted “where the Company has a large gas manufacturing plant which, in view of the supply of natural gas, has not been used for several years and is not likely to be used for many years to come, if at all.”). Cf. 84 Op. Atty’ Gen. 24 (1984) (state legislature may grant regulatory authority to the KCC to exclude from the rate base costs incurred imprudently or in the construction of excess capacity).

The Kansas courts have been reluctant to substitute their judgment for that of the KCC and have broadly construed legislative delegations to the agency even prior to enactment of the rate shock bill. See, e.g., Central Kansas Power Co. v. State Corp. Comm’n, 221 Kan. 505, 511, 561 P.2d 779, 785 (1977) (citing General Communication Sys., Inc. v. State Corp. Comm’n, 216 Kan. 410, 418, 532 P.2d 1383, 1384 (1975); Class I Rail Carriers v. State Corp. Comm’n, 191 Kan. 201, 207, 380 P.2d 396, 400 (1963)) (The KCC “has been vested by the legislature with wide discretion . . . and the [KCC’s] findings have a presumption of validity on review.”) See also KAN. STAT. ANN. § 66-118d (1980) (scope of judicial review of KCC decisions).
whatever factors it deems relevant in determining whether a utility acted prudently. In all but one situation, the statute permits the agency to determine the consequences of a finding of excess capacity or imprudence. Even where the statute mandates KCC action upon a finding of both excess capacity and imprudence, it dictates exclusion only of carrying charges from the rate base, not of the remaining costs of construction. A review of the manner in which other state PUCs have handled the excess capacity issue under far more traditional statutory delegations illustrates the range of options open to the KCC under this detailed but relatively unfettered statutory mandate.

IV. THE PRUDENT INVESTMENT AND USED AND USEFUL CRITERIA FOR DEALING WITH EXCESS CAPACITY

Many of the provisions of the Kansas rate shock bill reflect the decisions of other states’ PUCs on the appropriate treatment of costs incurred imprudently or in the construction of excess capacity. Indeed, a review of these decisions indicates that the KCC may have been correct when it concluded that it already had much of the authority expressly granted to it in the rate shock bill. Even without the detailed legislative delegations provided by the 1984 Kansas bill, the PUCs of other jurisdictions have implied that same authority from their powers to set “just and reasonable” rates and to determine the value of a utility’s “used and useful” property.

Although the decisions reviewed in this section are marked by a divergence of views on the implications of excess capacity and imprudence for a utility’s revenue requirements, rate base, and rate of return, most of the PUCs begin with a common premise. This typical starting point may in fact explain the diversity of results. The PUCs agree that when a utility builds a costly new plant with capacity larger than that which is needed to meet the utility’s current demand, the PUC must engage in a balancing of interests. In determining whether including the costs of constructing the plant in the utility’s rate base would result in a “just and reasonable” rate, the PUC must balance the interests of investors in receiving compensation for the risks of capacity planning that they reasonably assumed, against the ratepayers’ interest in protection

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*Several other states have enacted statutes to deal with the issues addressed by the Kansas rate shock bill. None are nearly as extensive or detailed, however, as the Kansas legislation. See, e.g., Iowa Code Ann. § 476.53 (Supp. 1984-85) (prohibiting state PUC from allowing “a return on common equity on that portion of a public utility’s electric generating capacity which is determined to be excess electric generating capacity,” which is defined as “that portion of... capacity which exceeds the amount reasonably necessary to provide adequate and reliable service as determined by the [PUC].”); Ohio Rev. Code Ann. § 4905.70 (Page Supp. 1984) (PUC “shall establish criteria for the investigation, identification, and remedy of the existence of any excess capacity in the generating systems of electric light companies.”); Va. Code § 56-234.3 (1981) (Utility seeking to pass through capital costs to customers has burden of proving “that such cost was incurred through reasonable, proper and efficient practices. . .”).*

*See Vancrum, supra note 8, at 476. See also supra note 36.*

against unjustified rate increases resulting from management decisions. Investors and ratepayers should share the risk of bringing large new plants on line. This balancing process is aimed at forcing the utility to make investment decisions based on the most accurate and reliable forecasts of future demand that are possible. As the KCC has recognized in a case involving construction works in progress, current ratepayers "should not be burdened with providing a return on property which [is] not in service . . . and the use thereof [is] still in contemplation." On the other hand, the PUC must consider the impact that excluding utility costs from the rate base will have on the financial viability of the utility, since the imposition of severe financial hardship could impair the utility's ability to provide adequate and reliable service to its customers.

The PUCs implement this balancing of investor and ratepayer interests by applying two tests. First, the agency must determine whether the utility prudently incurred the investment in the plant in exercising its responsibilities to serve the public. Second, the PUC inquires whether the plant is used and useful in providing utility service to the public. Although the relationship between these two tests has been described as "vague," most PUCs will exclude from the rate base costs that were either imprudently incurred or devoted to the construction of property that is not used and useful, even if the investment


76 See Pierce, supra note 3, at 513.
satisfied the other test.\textsuperscript{77}

A. The Prudent Investment Test

In determining whether to include construction costs, including the cost of constructing excess capacity, in the rate base, the PUC first inquires whether the utility's actions, such as its capacity planning, were prudent.\textsuperscript{78} The commission inquires into the reasonableness, not the wisdom, of the utility management's judgment.\textsuperscript{79} Many PUCs engage in a presumption that the utility


The term prudent investment is not used in a critical sense. There should not be excluded from the finding of the [rate] base, investments which, under ordinary circumstances would be deemed reasonable. The term is applied for the purpose of excluding what might be found to be dishonest or obviously wasteful or imprudent expenditures. Every investment may be assumed to have been made in the exercise of reasonable judgment, unless the contrary is shown.


The prudence test was designed to protect management's prerogative to exercise its best judgment without undue regulatory interference. Privately owned utilities must be allowed a reasonable amount of leeway in the decision-making process; their decision should be respected by us so long as the end result of those decisions is consistent with public policy.
acted prudently. Thus, although the ultimate burden of persuasion about the prudence of utility decisions remains with the utility, the difficulty of rebutting the initial presumption of prudence discourages ratepayers from attempting to do so. The provision in the Kansas rate shock bill creating a presumption of imprudence for costs in excess of two hundred percent of the original cost estimate is a significant departure from established practice, and should facilitate intervenor efforts to exclude plant costs from the rate base.

State regulatory agencies purport to review the prudence of utility decisions not with hindsight, but based upon the circumstances that existed at the time management made the decisions in question. Many PUCs, however, have been unwilling to confine themselves to a consideration of the facts that existed at the time the utility initially decided to build the plant. A review of the prudence of the utility's decisions is meant to provide an incentive for utility management officials to "continuously rethink prior decisions as new events unfold." State regulators accordingly will review not only the utility's initial determination that a new plant was needed, but also the manner in which particular construction expenditures were incurred. The agencies' goal is to ensure that utility managers maintain constant surveillance over the costs associ-

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See Pierce, supra note 3, at 512, 538.

KAN. STAT. ANN. § 66-128(b) (Supp. 1984).


Hindsight review is totally inappropriate where the consequence is to penalize for a past judgment. . . . It is inappropriate to penalize a utility for a decision that was prudent when made — that is, for a decision that was the product of a reasonable exercise of judgment in light of the available facts and circumstances — because we simply cannot expect anything more than reasonable decision making. Regulators are not clairvoyant and it is inappropriate to expect more of those who are regulated.


ated with each decision related to plant investment and construction.88

In reviewing the prudence of the initial decision to build the plant, state agencies typically focus on several factors. First, the regulatory commissions have been reluctant to attribute a lack of prudence to a utility's failure to forecast accurately, at the time the decision to invest was made, what the demand for electricity would be upon the plant's completion.89 The process of constructing a pressurized water nuclear reactor can easily exceed ten years.90 Recently completed nuclear plants were begun in the early to mid-1970's.91 Since that time, events like the oil embargo of 1973-74 and the oil shortages engendered by political strife in Iran in 1979 have caused a decline in the growth of demand for electricity and a sharp increase in inflation.92 As a result, plants that appeared necessary and relatively inexpensive a decade ago now represent multi-billion dollar investments in excess capacity. Many PUCs have concluded that although the utilities' predictions concerning the need for new plants have proved to be inaccurate, these mistakes were attributable to economic and service changes over which the utilities had no control and for which management should not be held accountable under the prudence standard.93 Some agencies have warned, however, that they may hold utility management more strictly accountable in the future in light of the recent development of "extremely sophisticated" forecasting methods.94

Second, many PUCs recognize that the utilities' statutory obligation to provide adequate and reliable service95 may force management to err on the side of overinvestment in plant capacity. The agencies have relied on this factor, together with the long lead time needed to plan and construct new plants and the uncertainties associated with long-range forecasting, in concluding that decisions to build excess capacity were not imprudent.96

88 See Dialogue, supra note 69, at 735 (contending that periodic reevaluation by the utility of the correctness of its initial decision to construct is sensible and necessary as new information becomes available. "A planner who fails to undertake such a periodic review and thereby fails to acknowledge and act upon new information ... that may substantially affect either the need for or the cost-effectiveness of a project, fails to exercise the care that should ordinarily be expected from utility planners.").

89 See, e.g., cases cited in Colton, supra note 69, at 1144.


91 See Pierce, supra note 3, at 500.

92 See id. at 500-05.


Even if the utility reasonably concludes that future demand will create a need for increased capacity, however, management should also be provided with an incentive to consider alternative means, other than construction of an expensive new plant, to meet that demand. The utility may, for example, be able to satisfy customers' needs by purchasing power produced by cogenerators.\textsuperscript{97} The state commissions that have considered this third factor, however, have concluded that inadequate consideration of alternatives does not, in and of itself, render the utility's decision to build a new plant imprudent.\textsuperscript{98}

Some state PUCs, including the KCC, have allocated to themselves part of the blame for excess generating capacity, since they encouraged utilities to invest in new plants in reaction to past capacity shortages.\textsuperscript{99} These decisions illustrate a fourth recurrent factor relating to the utility's prudence at the time of the decision to build the plant, which is the failure of the PUC to object to the construction of the plant at its inception. In a typical decision,\textsuperscript{100} the Indiana commission refused to exclude a new plant from the rate base on prudence grounds because "the construction was not conceived, financed, or performed in secret and neither the utility consumer counselor, the commission staff, or any intervenor . . . has heretofore raised this issue in any earlier proceedings."\textsuperscript{101} Another PUC, however, has concluded that the issuance of a certificate of convenience and necessity authorizing construction of a new plant does not automatically entitle the utility to include that plant in its rate base.\textsuperscript{102}

The KCC may find it difficult to conclude that the decision to build Wolf


\textsuperscript{100} "[W]here the commission has the power to certify and cancel plants, it will, in most instances, have been so heavily involved in the decision to build and continue building a particular plant, that the prudent investment test will be worthless as a means of checking the utilities." Pierce, \textit{supra} note 3, at 538 (footnote omitted). \textit{See also} Berlin, \textit{supra} note 78, at 28 ("[C]ompanies, their investors, and the public have the right to expect that regulators will stand behind their decisions.").


Creek was imprudent. Although the KCC did not require advance agency approval to build the plant, the Kansas legislature apparently encouraged the utility to construct the plant when it exempted Wolf Creek from the Electrical Generation Facility Siting Act in 1976. As recently as 1981, the legislature authorized the participation of the plant’s third partner, KEPCO, in the Wolf Creek venture. These legislative signals implicitly approving the continuation of the project may make a finding of imprudence at the investment and later stages unlikely.

For plants receiving a siting permit from the KCC in the future, the Kansas rate shock bill has clearer implications for the prudence of initial investment decisions. The act creates a presumption that if a utility incurred construction costs in excess of two hundred percent of its estimate at the time it received its permit, it incurred them imprudently. Costs up to the original estimate presumably would be considered prudent, since the KCC will have sanctioned the construction of the plant at that level of expenditure. Costs exceeding the original estimate by an amount less than two hundred percent will not be presumed to be imprudent. The KCC could still find that the utility incurred such costs imprudently, however, if, for example, an intervenor met its burden of proving imprudence.

The Kansas statute also reflects the willingness of other state PUCs to consider the prudence not only of the initial investment decision, but also of the level and manner of expenditure of funds during the construction process. The Michigan commission has inquired into the existence of cost overruns, the validity of construction estimates, the degree and manner of project supervision, contractor selection, decisions to expedite construction, and company efforts to control expenditures. The Kansas rate shock bill, explicitly or im-

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103 See Wolf Creek Questions, supra note 26, at 5.
106 See id. § 66-128g(b)(2).
107 PUCs may also consider other factors in determining whether the initial decision to invest in a nuclear plant was prudent. These factors include the type of reactor, safety features, fossil fuel costs in the area, the importance of air pollution in the area, the location of the plant, transmission costs to the center of the load, and the ability to finance construction independently or with available financial aid. See In re Consolidated Edison Co., 54 Pub. Util. Rep. 3d (PUR) 43, 136 (N.Y. Pub. Serv. Comm’n 1964).
109 See id. at 18 (citing Knoxville Util. Bd. v. East Tennessee Natural Gas Co., 63 Pub. Util. Rep. 3d (PUR) 359 (1966); In re Union Elec. Co., 92 Pub. Util. Rep. 3d (PUR) 254 (Mo. Pub. Serv. Comm’n 1971)). See also In re Consolidated Edison Co. Inc., 54 Pub. Util. Rep. 3d (PUR) 43, 138 (N.Y. Pub. Serv. Comm’n 1964) (cost of a comparable non-nuclear plant should be considered); Pierce, supra note 3, at 511 (utility investments can be excluded from rate base upon a finding of imprudence in decisions not to cancel a plant or whether to allocate contractual some risks and costs associated with the plant to third parties). Of the nuclear power plants scheduled to come on line after January 1, 1984, 23 were more expensive per kilowatt hour of capacity than the Wolf Creek plant. The most expensive plant was Long Island Lighting Co.’s Shoreham plant, which cost $5,192 per kilowatt hour. Wolf Creek’s cost was $3,529 per Kilowatt hour, assuming total construction costs of $2.9 billion. Fifteen plants were cheaper to build than the Wolf Creek plant. See Cook, supra note 90, at 85-87.
plicitly, directs the KCC to consider all of these factors.110

The Kansas rate shock bill, then, includes only one significant departure from the analysis of the prudence of a utility’s investment in new plants characteristic of other state regulatory commissions. State PUCs typically presume that utility management acted prudently in investing in and constructing new generating capacity. The Kansas statute creates a rebuttable presumption of a lack of prudence in the event of certain large cost overruns. This shift in the burden of proof may significantly affect rates by reducing the quantum of evidence needed to justify a decision by the KCC that construction costs were incurred imprudently and are therefore not includable in rate base. Aside from this procedural innovation, however, the rate shock bill simply authorizes the KCC to consider the prudence of utility decisions in the contexts and manner typical of other state commissions, some of which have assumed that their authority to review prudence is implicit in statutes requiring them to set efficient, just, and reasonable rates.

B. The Used and Useful Test

A utility is not necessary entitled to a return of and a profit on its investment in new generating capacity simply because it acted prudently in deciding to build and in actually constructing the plant. Typically, the state regulatory commission also inquires whether a new plant is used and useful in rendering services to the public.111 The Kansas rate shock bill, in a slight variation of this test, requires the KCC to assess the reasonable value of property that is “used and required to be used in [the utility’s] services to the public. . . .”112

The Kansas statute also defines excess capacity as capacity that exceeds the amount “used and required to be used,”113 and authorizes the KCC to defer inclusion of the value of the excess capacity in the rate base,114 or to reduce the utility’s revenue requirements or rate of return to reflect that excess.115 Other

110 See Kan. Stat. Ann. § 66-128g(a)(1)-(11) (Supp. 1984), set out at supra note 59. The KCC staff has concluded that $446.6 million of Wolf Creek’s construction costs were imprudently incurred and has recommended to the Commission that these costs be excluded from the utilities’ rate bases. According to the staff, $82.3 million resulted from the expenditure of unnecessary labor by the utilities and their contractors, while avoidable construction delays caused an additional $364.3 million in unnecessary costs. The staff also recommended that KG&E be allowed a return on only half of its remaining investment, while KCP&L would be limited to a return on 45 percent of its remaining construction costs. See K.C. Times, Apr. 9, 1985, at D-18, col. 1. The staff based its recommendation on its conclusion that the plant should have been abandoned in 1981, see id. at D-1, col. 4, and that the utilities’ decision to forego other alternatives in order to build the nuclear plant will cause 30 years of losses for the utilities. See id. at D-18, col. 2. The KCC is not bound to accept its staff’s recommendations. The staff represents the interests of Kansas residents in ratemaking proceedings.


113 Id. § 66-128c.

114 Id. § 66-128b.

115 Id. § 66-128c.
state PUCs have reached similar results under the simpler and more traditional “used and useful” test by engaging in three inquiries: (1) whether the utility has constructed excess capacity; (2) what effect such excess capacity should have on the calculation of the revenue requirement; and (3) which plants to exclude from the rate base in the event of excludable excess capacity.

1. The Definition of Excess Capacity

State PUCs have traditionally included in the rate base only property that is “used and useful” to the utility in providing customer service. This test is intended to prohibit a utility from earning a return on an investment that is not being used to accomplish the utility’s ultimate goal of providing service to its customers.

Many state commissions have concluded that a plant that represents excess capacity is not used and useful for purposes of valuing the rate base. The


Some agencies have addressed this issue in terms of whether a utility can recover a return on plant held for future use. See, e.g., In re Southwestern Pub. Serv. Co., 27 Pub. Util. Rep. 4th (PUR) 302, 305-06 (N.M. Pub. Serv. Comm’n 1978), concluding that a utility cannot include plant in rate base until it demonstrates that:

(1) the plant is imminent of being used and useful within a short period of time after the end of the test period, or (2) the purchase of the plant is associated with a definite plan for foreseeable use with the use of utility services and results in a demonstrable benefit to future ratepayers without the imposition of an unreasonable burden upon present ratepayers.
agency decisions reflect less agreement, however, in defining excess capacity. 119 The Kansas statute treats as excess any capacity greater than "the amount used and required to be used to provide adequate and reliable service to the public ..." 120 This definition is consistent with the one most commonly adopted by other state agencies: excess capacity is the amount over and above the amount necessary to meet the utility’s peak demand plus an adequate or reasonable reserve margin to cover scheduled and emergency plant outages. 121

This definition, however, is only a starting point. Although one can readily ascertain the utility’s peak demand, the determination of what constitutes an "adequate" or "reasonable" reserve margin is much less precise. Reserve margins sufficient to cover day-to-day variations in operating conditions differ in accordance with the size, age, and type of generating plants, the availability of power from other utilities, and the nature of the utility's market. 122 Since a utility must have some reserve capacity to meet its statutory obligation to provide adequate and reliable service by protecting against shortages caused by occasional plant shutdowns, the utility should be able to recover investments in, and a profit on, that reserve capacity. 123 Some agencies have concluded, however, that the marginal benefits of reserve capacity to ratepayers decrease as that capacity continues to rise above the level of peak demand. As one commission stated, "[A]t some point additional reserves provide no benefit to ratepayers but only add to the cost of service, and ratepayers must necessarily be relieved of the burden of paying the full cost of maintaining unnecessary reserves." 124 The utility commission’s task is thus to establish, on a case-by-case basis, 125 a reserve margin that is high enough to provide reliable and adequate service, yet not so high that customers are charged for unnecessary plant


119 Because of the long period of growth in demand for electricity, the treatment of excess capacity has become a widespread issue only recently. Some PUCs have conceded that their definitions of excess capacity may change as they gather more experience in future rate proceedings. See, e.g., In re Monongahela Power Co., 21 Pub. Util. Rep. 4th (PUR) 540, 544-45 (Ohio P.U.C. 1977).


122 See Pierce, supra note 3, at 539.


In other words, the agencies assess the economic reasonableness of a particular capacity addition to determine whether it should be included in the rate base. The PUCs define the appropriate level of reserve capacity by measuring the amount of capacity needed to provide adequate service at the lowest cost to consumers. The level of appropriate reserve capacity is the point at which the costs of installing and maintaining the last increment of capacity for the first time outweigh the benefits of that increment. Several factors bear on the cost-effectiveness of constructing a new plant. First, if the utility's generating units are old, a newly-constructed unit may operate more efficiently. Second, the deliberate construction of excess capacity may be justified by the desire to achieve economies of scale in generation that would not be available if the utility were to build a series of several smaller plants at the precise times when they are demand-justified. Some state regulators have accordingly permitted the utility to include in the rate base temporary excess capacity and to "grow into load" as a means of achieving economies of scale.

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129 The attempt to measure the costs and benefits of the last incremental unit of increased capacity is likely to give rise to the same problem that arises in the use of marginal cost to formulate a utility's rate structure. Electric generating capacity additions are not made on a unit-by-unit basis. Capacity is added in large chunks. In the context of marginal cost pricing for rate structure purposes, economists have suggested the use of long-run incremental cost computed on the basis of increments of the size the utility would normally plan. See L. FLAX & M. DRAZEN, CURRENT PROPOSALS FOR CHANGES IN THE DESIGN OF ELECTRIC UTILITY RATES 56 (1976). See also In re Madison Gas & Elec. Co., 5 Pub. Util. Rep. 4th (PUR) 28, 43 (1974) (Eich, Chairman, concurring).


The Illinois agency, on the other hand, has concluded that if economies of scale require construction of a larger plant than is currently needed, the costs associated with the excess "are more appropriately borne by future ratepayers who will be the primary recipients of the benefits of those plants." The agency thus required the utility to phase the costs of the new plant into the rate base over a seven-year period.

Third, the availability of purchased power from other members of the utility’s power pool and its price relative to the cost of constructing new capacity are relevant to the determination of whether the utility’s investment was cost effective. Exclusion of the new plant from the rate base because of the utility’s failure to consider alternative supply sources would provide an incentive to choose the least costly means of meeting anticipated growth in demand.

Fourth, even if economies of scale justify a large new plant, the agency may still inquire into the utility’s success in selling power not needed by its customers when the new plant comes on line. Such sales can offset the utility’s revenue requirements and thereby decrease the net cost of the plant addition to the utility’s ratepayers. If these sales increase the cost effectiveness of the incremental capacity resulting from a new plant, the agency may consider the capacity to be used and useful to the utility’s ratepayers even though they are not consuming the power that it produces. Some PUCs, however, have taken the existence of a significant volume of off-system sales as proof that the new capacity is being used to benefit a few contract customers rather than the ratepayers generally, and that it is therefore not used and useful. Other agencies treat the presence or absence of off-system sales not in determining whether the plant is used and useful but in deciding whether the utility acted prudently.

Load units has resulted in wider swings in reserve capacity when those plants come on line. See In re Philadelphia Elec. Co., 31 Pub. Util. Rep. 4th (PUR) 15, 27 (Pa. P.U.C. 1978) (listing several other factors relevant to the determination of whether the rate base should be adjusted to reflect excess capacity).


136 See id.


in building it.\footnote{188 See, e.g., Gulf Power Co. v. Florida Pub. Serv. Comm’n, 453 So. 2d 799, 802 (Fla. 1984).} The Kansas rate shock bill directs the KCC in determining prudence to consider the utility’s ability to make sales on the competitive wholesale or other market if the entire cost of the new facility is included in the rate base.\footnote{189 See Kan. Stat. Ann. § 66-128g(a)(5) (Supp. 1984).}


Based on all these factors, various commissions have concluded that an adequate and reasonable reserve margin falls within a range of fifteen to twenty-five percent above the utility’s annual peak load.\footnote{196 See, e.g., In re Iowa Power & Light Co., 59 Pub. Util. Rep. 4th (PUR) 599, 622 (Iowa St. Comm’n 1984) (a 25% reserve margin is the maximum reserve that provides benefits to customers. Since the amount is adequate, any amount over 25% will be deemed excessive); In re Kansas City Power & Light Co., 43 Pub. Util. Rep. 4th (PUR) 559, 580 (Mo. Pub. Serv. Comm’n 1981) (in this case, a reserve margin of 20.5% of forecasted net system peak load is reasonable); In re Dayton Power & Light Co., 45 Pub. Util. Rep. 4th (PUR) 549, 556 (Ohio P.U.C. 1982) (setting forth two-step process for determining whether excess capacity exists. First, is the utility’s reserve}
rule that reserve capacity above this amount is not currently used and useful in providing service to the utility's customers. 147

In summary, state utility commissions authorized to assess the reasonable value of property “used and useful” in providing service to the utility’s customers have had difficulty defining the reserve margin beyond which they will deem generating capacity to be excess and thus not used and useful. Although the Kansas statute provides little guidance to the KCC on this issue, it does clearly specify that excess capacity is not used and required to be used. 148 The statute leaves to the KCC the task of determining what level of capacity is required to provide “adequate and reliable service to the public within the state of Kansas . . . .” 149 It should not be surprising if the KCC performs that task by seeking out the maximum cost-effective level of generating capacity in the same manner as other commissions that operate under more traditional statutory delegations of authority.

2. The Consequences of Excess Capacity

Assuming that a PUC finds that a utility has constructed excess capacity, it must next specify the consequences of that capacity for the calculation of the utility’s revenue requirement. One obvious possibility is to exclude the value of the excess capacity from the utility’s rate base, on the ground that it is not used and useful. The state PUCs, however, have taken a wide variety of approaches to this issue, ranging from denial of the costs of operating the excess capacity to inclusion of that capacity in the rate base and recovery of at least a partial return on investment. Except when the KCC finds that construction or

margin under 20% of peak demand? If so, there is no excess capacity. If not, the second part of the test is applied: assuming the largest single generating unit is unavailable, is system capacity more than 15% of peak demand? If not, there is no excess capacity); Smart, Phase-in Darkens the Financial Outlook for Utilities, 114 Pub. Util. Fort., Sept. 13, 1984, at 6. (New Mexico Commission set 20% reserve margin). The KCC recently seemed to indicate that it considers a 15% reserve margin appropriate. See In re Sunflower Elec. Coop., Inc., No. 137,068-U, slip op. at 12 (Kan. St. Corp. Comm'n Sept. 2, 1983).

147 Consumer intervenors have tried unsuccessfully to convince state commissions to set the maximum reasonable reserve margin equal to the minimum reserve required by the power pool of which the utility is a member. The agencies have chosen not to impose on the utilities the obligation to straddle precisely that maximum-minimum level to avoid the imposition of penalties by the pool for falling below the minimum required reserve margin and by the commission for constructing excess capacity. See, e.g., In re Iowa Power & Light Co., 59 Pub. Util. Rep. 4th (PUR) 599, 620 (Iowa St. Comm. Comm'n 1984); In re Iowa-Illinois Gas & Elec. Co., 59 Pub. Util. Rep. 4th (PUR) 385, 393 (Iowa St. Comm. Comm'n 1984); In re Kansas City Power & Light Co., 43 Pub. Util. Rep. 4th (PUR) 559, 580 (Mo. Pub. Serv. Comm'n 1981).

According to a recent report prepared by the Southwest Power Pool (“SPP”), whose members include both KCP&L and KG&E, the operation of the Wolf Creek Plant will result in a reserve capacity of 4,598 megawatts in the plant’s service area. This reserve capacity is twice the estimated 1985 peak demand of KCP&L. See K.C. Times, Mar. 29, 1985, at A-1, col. 4. KG&E will have reserves of 57% in 1985, 45% in 1986, and 42% in 1987. See id. at A-16, col. 2. The operation of Wolf Creek will give the SPP as a whole a reserve margin that exceeds peak demand by 41.9%. See id. at col. 1. The pool’s reserves will not fall to the pool’s own “preferred” level until 1992, when capacity should exceed peak demand by about 21.4%. See id.

149 Id.
operating costs resulted from imprudent investment in excess capacity.\textsuperscript{160} The Kansas rate shock bill permits the KCC to choose any of these alternatives.

The most draconian response to a finding of excess capacity would be to prohibit the recovery of all costs associated with that capacity, including operating expenses. At least one state commission has adopted this approach.\textsuperscript{161} Under this approach, the utility presumably can begin passing through operating costs and include the plant in the rate base if it eventually does become used and useful.\textsuperscript{162} Current customers are not forced to pay for a plant that will benefit only future ratepayers. The rate shock bill authorizes the KCC to defer including in the rate base property not currently used and required to be used,\textsuperscript{163} and apparently also to prohibit recovering the costs of operating excess capacity.\textsuperscript{164}

If the agency decides to defer including the excess capacity in the rate base until the plant is needed to meet current customer needs, it must decide whether to permit the utility to accumulate its finance costs during the deferral period for ultimate inclusion in the rate base.\textsuperscript{165} The Missouri and Pennsylvania commissions have adopted this approach, which is similar to the accrual of an allowance for funds used during plant construction.\textsuperscript{166} Advocates contend that this method compensates the utility for carrying the plant until it is needed, while not burdening current ratepayers with the costs of carrying as-

\textsuperscript{160} In that situation, the KCC must exclude forever from the rate base carrying or finance charges incurred after the date of the agency's finding. See id. § 66-128e.


\textsuperscript{163} See KAN. STAT. ANN. § 66-128b (Supp. 1984). The KCC believed it had the authority to defer the inclusion of excess capacity in the rate base even before the enactment of the 1984 rate shock bill, although the agency deemed such deferral an "unusual decision." See In re Sunflower Elec. Corp., Inc., No. 137,068-U, slip op. at 11 (Kan. St. Corp. Comm'n Sept. 2, 1983). See also id. at 7 (deferral is "reasonable, necessary and fair" as an attempt "to balance the interests of present and future ratepayers. [The KCC] cannot justifiably place all of the burden on future ratepayers when the plant is presently providing service and displacing more expensive fuel in the process."). The KCC considered several methodologies in calculating the percentage of the plant to be deferred, including the ratio of peak demand to net capacity and the ratio of baseload responsibility to total rated capacity. See id. at 11-12.

\textsuperscript{164} See KAN. STAT. ANN. § 66-128c (Supp. 1984). The KCC would have to determine that "a portion of the cost of ... operation were incurred ... in [the] ... construction of excess capacity ... ." Id. This provision appears to confuse costs incurred during construction (i.e., capital investment) and costs incurred after the plant comes on line (i.e., operating expenses). Perhaps the provision could apply if the KCC could demonstrate that the utility's operating costs are higher than they would have been absent the construction of the excess capacity. To that extent, the agency would prohibit the utility from recovering the costs of operating the excess capacity.


sets not beneficial to them. The North Dakota PUC, however, refused to capitalize interest on the excess capacity because to do so might discourage load management and increased plant productivity, and erode the utility's ability to attract capital. The Kansas legislature made no policy decision on this issue, permitting but not requiring the KCC to exclude finance costs incurred during a deferral period.

The rate shock bill also authorizes the KCC to phase in the value of property not currently used and required to be used over a period of time that the agency considers appropriate. The Illinois Commerce Commission approved a seven year phase-in of a new plant as a means of avoiding the "rate shock" to customers that would result from inclusion of the full value of the plant in the rate base as soon as the plant began operating. The agency justified this departure from traditional ratemaking practice by contending that under a phase-in, rates would more accurately reflect the economic costs of capacity and promote more efficient allocation of resources, and that the costs of excess capacity are more appropriately borne by future ratepayers, who will receive the benefit of the plant. The Iowa agency, however, rejected utility phase-in proposals because they would increase long-run costs for ratepayers and because the agency could not guarantee that the utility would be able to recover any revenue deficiency resulting from the phase-in. Others have objected to


200 See id. The issue of whether the utility should be able to accumulate its finance costs arises in phase-in as well as deferral cases.

201 See In re Iowa-Illinois Gas & Elec. Co., 56 Pub. Util. Rep. 4th (PUR) 361, 376-77 (Ill. Comm. Comm'n 1983). The Missouri Public Service Commission recently approved a phase-in for Union Electric Company's Callaway plant. The utility requested a one-year, 65.5% increase of $639 million, or a five-year phase-in of $707 million, amounting to a 72% increase. See K.C. Times, Mar. 30, 1985, at A-10, col. 1. The commission, however, included a smaller amount in the rate base and phased it in over a longer period. The commission approved a $652 million or 66% increase over eight years. See id. It prohibited Union Electric from recovering $384 million of the $3 billion construction costs because that amount represented "inefficient, imprudent, unreasonable, or unexplained costs." See id. at A-1, col. 1 Specifically, the utility failed to coordinate its engineering and construction schedules, leading to "wasted manpower" and unnecessary labor costs. See id. at col. 2.


phase-ins because they increase risk for utility investors by adversely affecting cash flow, thus raising the utility's cost of capital. Early ratepayers will pay less than the true cost of service while later users will have to pay more than true cost, and phase-ins would complicate the work of investors and their advisors in analyzing financial statements and rate orders, ultimately resulting in a fall in credit ratings. The Kansas legislature again has deferred to the KCC the determination of the soundness of these competing contentions.

Still another approach would be to permit the utility to immediately begin depreciating the value of the excess capacity and recovering that value over the years as operating costs, but to not permit recovery of any profit on the investment. This approach would deprive investors of their expected profit while compelling ratepayers to pay the costs of constructing facilities to meet their needs. A regulatory agency more generous to the utility could authorize the utility to include in the rate base the entire cost of constructing the excess capacity, but reduce the normal rate of return on that investment. The North Dakota commission, for example, has authorized utilities with excess capacity to recover the debt costs of constructing that capacity but not the cost of providing shareholders with a return on common equity. The Iowa agency has reduced the rate of return on excess capacity on a graduated scale, increasing the size of the disallowance as the capacity grows further beyond a reasonable level. The Kansas rate shock bill gives the KCC the authority to adjust the

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164 See Smart, supra note 144, at 9-10.
167 See Colton, supra note 69, at 1154.

\[ \text{Return Adjustment} = \frac{\text{Excess Capacity}}{\text{Total Generating Capacity}} \times \frac{\text{Net Investment in Total Generating Capacity}}{\text{Weighted Cost of Common}} \times \frac{\text{Excess Capacity}}{\text{Annual Peak Load}} \]

See, e.g., In re Iowa Power & Light Co., 51 Pub. Util. Rep. 4th (PUR) 405, 413 (Iowa St. Commn' 1983). This formula was intended "to deny a greater percentage of the overall return on excess capacity that is clearly unreasonable than on excess capacity that only minimally exceeds the acceptable (25%) reserve margin." In re Iowa Pub. Serv. Co., 46 Pub. Util. Rep. 4th (PUR) 339, 370 (Iowa St. Commn' 1982). By reducing a utility's rate of return by an amount proportionate to the amount of excess capacity, the formula "provides an incentive to utilities to avoid the construction of excess capacity and will encourage utilities to fine tune their planning methodologies to more accurately predict demand." In re Iowa Power & Light Co., 51 Pub. Util. Rep. 4th (PUR) 405, 413 (Iowa St. Commn' 1983). See also Pierce, supra note 3, at 557. More recently, the Iowa commission has applied a simplified version of the formula. The return adjustment equals (investment per megawatt) \( x \) (return on equity) \( x \) (excess capacity). See In re
rate of return in a similar manner.\textsuperscript{170}

3. The Units that Constitute Excess Capacity

If the KCC decides that a utility has constructed excess capacity and that, as a result, the investment in excess capacity must be excluded from the rate base, the agency will have to decide which plants or portions thereof represent the excess capacity. The commissions of other states have resolved this issue in several different ways. Some commissions have excluded the most recently constructed plant, since its construction caused the utility's capacity to exceed current needs.\textsuperscript{171} Other commissions have excluded the utility's oldest plants, on the ground that the new plant rendered the old ones no longer useful.\textsuperscript{172} One commission removed from the rate base the depreciated original cost of the utility's least economical units.\textsuperscript{173} Finally, several agencies have refused to designate any one plant as the unit that constitutes the system's excess capacity. Instead, these commissions have recognized that all of a utility's units are part of its generating system and have spread any excess capacity adjustment over all the utility's plants.\textsuperscript{174} The Kansas statute, by giving the KCC the power to determine the value of property used and required to be used and the amount of capacity needed to provide adequate and reliable service, permits the KCC to adopt any of these approaches.\textsuperscript{175}

V. Conclusion

The Kansas rate shock bill explicitly grants to the KCC broad authority to

\textsuperscript{170} See Kan. Stat. Ann. § 66-128C. (Supp. 1984)(giving the KCC discretion to "prohibit or reduce the return on costs which were incurred in constructing, maintaining, or operating excess capacity.").


\textsuperscript{172} See Pierce, supra note 3, at 515-16.


deal with the construction of excess capacity. The statute provides the agency with sufficient flexibility to justify a wide range of responses reflected in the decisions of other state regulatory commissions, operating under more traditional statutory authorizations to assess the value of a utility’s “used and useful” property. These responses include exclusions or deferrals of investments from the rate base, modifications to the rate of return, and adjustments to the utility’s revenue requirement.

In applying the rate shock bill to the Wolf Creek plant, the KCC will consider the impact on the utilities’ current customers of the rate increases that will result from including the plant’s construction costs in the rate base. The agency also will consider the effect of its determinations in the current rate increase proceedings on the behavior of future ratepayers, investors, and utility management. On the one hand, including the cost of constructing excess capacity in the rate base may increase the likelihood of additional wasteful expenditures in the future. On the other hand, excluding the cost of excess capacity from the rate base may discourage utility investments in new plants until their need is beyond question. Delays in new plant construction could in turn expose ratepayers to the risk of increased rates attributable to more intensive use of high-cost or obsolete generating units. In a worst case scenario, underinvestment in new plants could cause brownouts and blackouts due to inadequate capacity. If similar disincentives were created nationwide, the nation’s reliance on unstable foreign energy sources could increase. A less pessimistic scenario envisions utilities reacting to excess capacity exclusions by building less expensive, smaller generating units or by relying upon power pooling and other non-construction alternatives to meet customer demand more efficiently. The papers following this one explore some of these potential long-term effects and provide suggestions on how the KCC should exercise its authority to deal with imprudent expenditures and the construction of excess capacity.


177 See Pierce, supra note 3, at 531-32.


179 See Berlin, supra note 78, at 27.
