Approved: Feb. 2 /999

Date (coexected)

## MINUTES OF THE SENATE UTILITIES COMMITTEE.

The meeting was called to order by Chairperson Sen. Pat Ranson at 1:30 p.m. on January 26, 1999 in Room 531-N of the Capitol.

All members were present except:

Sens. Hensley and Salisbury were excused

Committee staff present:

Lynne Holt, Legislative Research Department Mary Torrence, Revisors of Statutes Office Jeanne Eudaley, Committee Secretary

Conferees appearing before the committee:

Diane Gjerstad, Wichita Public Schools
Lynne Holt, Legislative Research Department

Others attending:

See attached list

Sen. Ranson opened the meeting by introducing pages, who are assisting the committee today. They are from Sen. Salisbury's district and are students at Auburn School.

Sen. Ranson then introduce Diane Gjerstad, who explained a proposal regarding a change in the exemption for bids to school district for natural gas and electricity, and requested the committee introduce it as a committee bill. Sen. Clark made a motion the committee sponsor it, and the motion was seconded by Sen. Brownlee. A quorum was not present, and the motion was withdrawn. Sen. Ranson called the committee's attention to an article from the Salina Journal on January 21, 1999, entitled, "Utility pact fuels promise of brighter days", which has been distributed to the committee.

Sen. Ranson noted a quorum was present, and <u>Sen. Clark again made a motion the committee sponsor Ms.</u> <u>Gjerstad's proposal as a bill, and it was seconded by en. Brownlee; the motion passed.</u>

Sen. Ranson then introduced Lynne Holt and stated she will review the Report of the Joint Committee on Economic Development and Electricity Generating Constraints. Ms. Holt distributed an article entitled, "Missed Opportunity: What's Right and Wrong in the FERC Staff Report on the Midwest Price Spikes", from the Public Utilities Fortnightly, dated November 15, 1998. She also distributed the following to the committee:

Report of the Joint Committee on Economic Development - Electric Generation Capacity Constraints Report, (Attachment 1);

Letter from Sen. Pat Ranson to John Wine, Chairperson, dated December 18, 1998, (Attachment 2);

Synopsis of the Joint Committee's Report, "Electric Generation Capacity Constraints", (Attachment 3).

Ms. Holt also referred to a map indicating the states involved in the power pool (SSP's).

Ms. Holt highlighted background information and explained interruptible contracts/customers (those who pay considerably less than customers with firm contracts, in exchange for accepting a lower priority of service; if curtailments are necessary, interruptible customers will be asked to reduce consumption before firm customers). She reminded the committee of circumstances last summer when Western Resources asked customers to conserve energy. She continued by explaining that the Joint Committee investigated factors contributing to Western Resources' electric capacity constraints, and the SPP's activities and its attempts to correct the weak links in the transmission system and emergency procedures. Ms. Holt continued by discussing the Kansas Corporation Commission's plans to address the problem, which has resulted in a Commission Order, dated November, 1998, initiating an investigation of the future of Kansas electric generation capacity. The Kansas Corporation Commission directed staff to compile a summary of responses to questions. She continued by explaining Western Resources plans for expanded capacity and the conclusions and recommendations of the Joint Committee.

## CONTINUATION SHEET

MINUTES OF THE SENATE UTILITIES COMMITTEE, Room 531-N Statehouse, at 1:30 p.m. on January 26, 1999.

Sen. Ranson recognized several representative of utilities who were present, and they indicated they were prepared to explain procedures to address the problem. Because of time constraints, the Chair requested the utilities return at a later date to offer additional information.

The committee adjourned at 2:30.

Next meeting will be January 27, 1999.

## SENATE UTILITIES COMMITTEE GUEST LIST

DATE: JAN. 26, 1999

NAME	REPRESENTING
J.C. LONG	иси
Frank Walankey	ucu
Wester Jame	Empire
Susa Duran	Tous Movagnest Group
Bud Bnrke	Western Resources
Jamie Clover adams	Avernor's Office
Marc Hamann	PIV. OF THE BUDGET
Diane Gjerstad	USD 259
BRUCE GRAHAM	(CEPCo
John Gulley	League of LS municipalite
You La Miles	KER
fact Daves	Oby Tuke & h & Sver
Mmy A. Campbell	Midwess Energy
Kelly & Hagrison	WRI
Chin Lole	RGL
Jim Ludwig	Western Resources
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Attach.

# JOINT COMMITTEE ON ECONOMIC DEVELOPMENT

## **ELECTRIC GENERATION CAPACITY CONSTRAINTS**

## CONCLUSIONS AND RECOMMENDATIONS

The Committee recommends the Chairperson of the Committee write a letter to Chairman John Wine and the other Commissioners of the Kansas Corporation Commission, with a copy to be forwarded to the Governor. This letter should encourage the Commission to proceed expeditiously with its investigation of the adequacy of future Kansas electric generation capacity. In addition, this letter should relay the Committee's concerns about the implications of energy capacity constraints for economic development in Kansas. The Committee also encourages the Commission to periodically update the Legislature on the Commission's proceedings on generation capacity and the complaint filed by Farmland Industries requesting an investigation of interruptible contracts.

## BACKGROUND

During the Summer of 1998, many electric utilities in the Midwest experienced electric capacity shortages. In Kansas, these shortages caused Western Resources to request its 59 commercial and industrial customers with interruptible contracts to reduce their electrical consumption for 51 hours spread over an eight-day period. Western Resources requested its 100 largest customers, even those with firm contracts, to voluntarily reduce electric consumption on four days. (Customers with interruptible contracts pay considerably less than customers with firm contracts in exchange for accepting a lower priority of service; if curtailments are necessary, interruptible customers will be asked to reduce consumption before firm customers.) On July 20 and 21, Western Resources asked all its customers to conserve energy because of concerns about rotating electric outages. Ultimately, no outages occurred although the threat of outages and the requests for reduced consumption caused considerable hardship for certain industrial customers, particularly those served by Western Resources (KGE) in Wichita. The Committee held a hearing on November 6 to explore the reasons for the electric capacity shortages in the Midwest, including Kansas, and to identify the potential shortterm and long term effects of those shortages.

## **COMMITTEE ACTIVITIES**

The Committee heard presentations from the Chief Electric Engineer of the Kansas Corporation Commission (KCC); the Vice President of Southwest Power Pool (SPP); the Director of Rates, Western Resources; and spokespersons for four large industrial companies which purchase electricity from Western Resources—Farmland Industries, Boeing, Vulcan, and Raytheon. The Committee was informed about the factors contributing to the electric capacity constraints; the SPP's regional planning activities; the KCC's actions to address this issue; Western Resources' plans for expanded capacity; and the represented industries' experiences with the mid-summer shortages.

Factors Contributing to Electric Capacity Constraints. The following is a list of several factors that might have contributed to Western Resources' electric capacity constraints during the Summer of 1998. This list is a synthesis of various conferees' perspectives.

Senate Utilities 1-26-99 Attach

- Wholesale Electricity Market. The wholesale electricity market is largely deregulated and the transition from regulation to deregulation has occurred much more quickly than had been anticipated. The wholesale market, in this context, refers to electric power transactions between a utility and another utility or an independent power plant or between a utility and a governmental entity. In 1992, Congress ordered federally regulated electric utilities to allow any wholesaler to use the transmission lines. To implement this mandate, utilities have separated control of transmission lines from control of power generation. This mandate has also led to the entrance of new nonutility marketers, many of whom only deal in financial transactions. However, since many of the transactions are not backed by the ability to physically deliver power, pricing has become increasingly volatile, as was evident in the Summer of 1998. The entities controlling the transmission system have the power to limit or stop electricity from flowing, regardless of contractual agreements between a buyer and seller. Consequently, purchases from one utility to another can be suddenly curtailed, creating immediate and unexpected reliability problems. Deregulation in the wholesale market has resulted in greater uncertainty in commodity pricing and greater unreliability in wholesale purchases.
- Mixture of Wholesale and Retail Electricity Markets. Even though wholesale markets operate with few price constraints and no utility service obligations beyond contractual agreements between buyers and sellers, retail markets are fully regulated and utilities are therefore still obligated to serve retail customers at fixed rates. If utilities must purchase electricity on the wholesale (spot) market and pay very high prices to meet retail obligations, utilities could realize major financial losses. The coexistence of a largely deregulated wholesale market and a largely regulated retail market has created problems for utilities in balancing supply (some of it is dependent on wholesale purchases in the largely deregulated market) and demand from firm retail

- customers (in the regulated market). Transmission systems were not designed to accommodate dynamic competition in the wholesale market, thus causing an increasing number of transmission constraints. In addition, several states have introduced retail wheeling before the system to effectively coordinate the wholesale market has evolved.
- Generation Capacity. Utilities, such as Western Resources, must rely on the restructuring wholesale market if their own generating capacity is insufficient to meet peak demand -the maximum hourly amount of energy demanded during the year. Several factors affect a utility's capacity to meet that demand -some are circumstantial and some are systemic. With respect to Western Resources' capacity constraints in the Summer of 1998, the circumstantial factors included: unusually hot weather which caused air conditioners to run for long periods of time; unscheduled unit outages, such as Western Resources' Lawrence and La Cygne plants; and the shut down of several large nuclear plants in the upper Midwest which contributed to shortages in the entire region. Systemic factors include:
  - A greater increase in peak demand obligations than Western Resources had projected.
  - Conservative projected electric capacity margins set by the SPP, a regional reliability council. In addition to other functions, the SPP establishes the minimum standards for energy resources needed (capacity margin) to ensure reliable electric transmission and generation in this region. The SPP's capacity margin is based on aggregate forecasting projections submitted by regional utilities. Utilities are required to reserve a percentage of capacity, determined by the SPP, above their peak responsibility level; however, actual growth in peak demand has exceeded projected growth in each of the past ten years and reserve margins will be dangerously low within two years if this pattern of understated growth projections

- continues.
- Insufficient generating capacity owned by Western Resources to meet summer peak demand in the future (addressed below).
- O The lack of an overarching body to determine, and enforce compliance with, uniform standards, criteria (such as capacity margin criteria), and procedures to ensure reliability of the North American interconnected electric system. Western Resources and other utilities, state and federal regulatory agencies, and nonutility power plants are members of the SPP, but policies adopted by that council differ from decisions made by reliability councils in other regions. This raises the question of how to ensure reliability on the system beyond the immediate region since transmission of power can affect multiple regions. Despite their necessary dependence on an interconnected system, utilities have become increasingly self-sufficient in meeting their own energy resource needs due to the lack of transmission system reliability.

SPP's Regional Planning Activities. The SPP is the oldest of the ten regional reliability councils which currently comprise the North American Electric Reliability Council. The SPP coordinates, promotes, and communicates about maintaining the critical and delicate balance between electric system reliability and economic and equity issues. The SPP helps to reduce transmission capacity constraints, identifies and attempts to correct weak links in the transmission system connecting utilities, and invokes emergency procedures to prevent cascading blackouts or reduce power due to an unanticipated shutdown of a regional generating facility. One of its other responsibilities, as noted above, is the determination of electric generation capacity margins. The minimum SPP capacity margin was 13 percent for years through 1998. That percentage has been reduced to 12 percent in 1999. This number is based on the projected occurrence of power outages for any particular area once every ten years within the region.

The SPP issued a report in July 1998, which

indicates a decrease from 1997 in forecasted capacity margin for Kansas utilities with a potential generation shortfall in Kansas by 2002. An analysis by the KCC staff reveals that Kansas utilities lowered from 1997 both their anticipated peak summer demand forecasts for future years and their planned capacity resources. The Vice President of the SPP informed the Committee that the reserve capacity margin in the region could be as low as 3.8 percent in 2001, assuming peak demand growth of 4 percent. For each of the past ten years, peak demand has been greater than forecasted. For example, the summer peak growth in 1998 was 5-7 percent for the region although only 2-3 percent had been projected.

Why Utilities Do Not Build Plants. Electric utilities have been reluctant in recent years to build new power plants, due to a concern of stranded investments in a restructuring environment. A long lead time is needed for plant construction; however, growth in customer load (electric consumption at any given time) is very uncertain, particularly when the "rules" governing wholesale and retail power transactions are in a state of flux. Because utilities are interconnected, they have been more inclined in recent years to purchase power, as needed, from other providers. However, capacity constraints occur when demand exceeds supply and there is no more available power or no affordable power to purchase.

Limitations of Reliability Councils' Pow-Utilities are voluntary members of the reliability councils. Several councils do not impose penalties on member utilities which are in noncompliance with the capacity margin requirements. Nonmembers may elect not to reserve capacity. Moreover, utilities may opt to leave reliability councils which further complicates those councils' efforts to project capacity margins with any accuracy. Another factor complicating regional forecasting by reliability councils, which also contributes to understated projections, is that utilities do not plan for interruptible demand in determining capacity reserves. Therefore, this type of demand is not reflected in the councils' respective regional projections. Finally, nonmembers need not submit data on their capacity projections to reliability councils, thus making the councils' regional projections less accurate. As noted, capacity margin criteria and penalties for utility noncompliance with required reserve capacity margins are not uniform among reliability councils. This limitation prevents councils from effectively coordinating efforts to realize the advantages and cost efficiencies of an interconnected transmission system.

KCC's Plans. To address several of the issues outlined above, the KCC issued an order initiating an investigation of the future of Kansas electric generation capacity (November 4, 1998). Specifically, the Commission indicated plans to investigate the capacity margin projected for Kansas utilities for the years 1998 through 2007. The initial phase of this proceeding is the collection of information on demand forecasts and planned capacity resources from both Kansas electric utilities belonging to the SPP and Kansas electric utilities that do not. Two sets of questions for each type of utility (SPP members and nonmembers) are appended to the order. The Commission directed staff to compile a summary of responses to these questions. Based on the summary of responses, the Commission indicated its intent to issue an order establishing further proceedings, including, but not limited to, roundtable discussions involving interested parties.

Western Resources' Plans for Expanded Capacity. The Director of Rates, Western Resources, informed the Committee that the company recognized the need for additional capacity even earlier than Summer 1998. KPL has not built a new power plant since 1983 and KGE since 1985, when Wolf Creek was completed. During the Summer of 1999, Western Resources intends to restore KGE's nonoperational Neosho power plant to service. In addition, the company plans to build three combustion turbines, to be partly operational in the Spring of 2000 and fully operational in the Spring of 2001. These turbines will add approximately 300 MW of peaking, gasfired generating capacity to the company's capacity resource complement. Both KPL and KGE will take shares of the new capacity, which amounts to a 5 percent increase in the total capacity owned by Western Resources. As peaking capacity, the new turbines are expected to operate less than 10 percent a year. The plants will be located at KGE's Gordon Evans plant site near Colwich, northwest of Wichita. The direct cost is estimated at \$120 million and, with additional facilities, \$140 million. The Committee learned that the company did not view this additional capacity as a long-term solution for meeting customers' electric power needs. Finally, the Committee was informed that the company planned to submit to the Legislature proposals relating to tax incentives and streamlining or eliminating the Siting Act. From the company's perspective, these measures would reduce the company's exposure to investment risks in light of a transforming industry over the next several years.

Kansas Industry Experiences with Mid-Summer Shortages. The Committee received testimony from spokespersons from The Boeing Company, Farmland Industries, Vulcan Chemicals, and Raytheon Aircraft Company.

- Boeing's testimony raised concerns about the justification for Western Resources' off-system contractual obligations when firm customers, such as Boeing, in the utility's certificated areas were being asked to reduce consumption. The power shortages affected 1,000 company employees who had to switch their work hours because of requested load shedding.
- In addition to sharing Boeing's concerns about off-system contracts, Farmland Industries' spokesperson questioned whether KGE's action to curtail its interruptible customers in June 1998 was warranted given its acceptable reserve margin (assumed to be 27.45 percent) at the time.
- An interruptible customer like Farmland Industries, Vulcan Chemicals was without power for five days during the Summer. The company was able to purchase very expensive power on three days but it was insufficient to meet the company's needs. Vulcan's testimony outlined three concerns:
  - the company was forced to be very ineffi-

- cient in its use of electricity given its production process;
- the company was forced to inform some of its customers it could not meet all of their needs because of power constraints;
   and
- the future reliability of Western Resources power delivery is unclear given the recent events.

Also emphasized were the adverse economic development implications of these capacity constraints. Vulcan proposed retail wheeling as a solution for reducing uncertainty of large energy users.

• Like Boeing, Raytheon Aircraft had to change production schedules to comply with the request for consumption curtailment. Like Boeing, Raytheon is a firm customer. The company shared the same concerns with the other companies regarding Western Resources' accommodation of out-of-state offsystem companies when its firm in-state industrial customers were threatened with blackouts. The company suggested that costs for the new turbines proposed by Western Resources be borne by off-system wholesale customers.

## CONCLUSIONS AND RECOMMENDATIONS

The Committee recognizes that Kansas has fared better than many states in terms of meeting capacity requirements. Moreover, the Committee understands that uncertainties in power supply and transmission are regional, as well as national problems. Nonetheless, a company's lack of

access to reliable and affordable energy is an economic development issue. Potential economic growth will be impeded in terms of industrial relocation and expansion plans, if businesses cannot rely on their electric utilities to supply them with contractually promised power. The power shortages experienced by certain large commercial and industrial customers during the Summer of 1998 had adverse impacts on their production cycles, employee schedules, and finances.

This situation deserves serious scrutiny from the KCC so that measures can be taken to prevent a recurrence of power curtailments. The Commission, the industrial consumers, and the electric utilities in Kansas need to carefully assess all the economic development implications of power curtailment measures and develop a strategy to ensure that there will be adequate capacity in future years.

To that end, the Committee recommends the Chairperson of the Committee write a letter to Chairman John Wine and the other Commissioners of the KCC, with a copy to be forwarded to the Governor. This letter should encourage the Commission to proceed expeditiously with its investigation of the adequacy of future Kansas electric generation capacity. In addition, this letter should relay the Committee's concerns about the implications of energy capacity constraints for economic development in Kansas. The Committee also encourages the Commission to periodically update the Legislature on the Commission's proceedings on generation capacity and the complaint filed by Farmland Industries requesting an investigation of interruptible contracts.

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KANSAS SENATE

PAT RANSON
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Attach. 2

COMMITTEE ASSIGNMENTS

CHAIRPERSON: JOINT COMMITTEE ON ECONOMIC

DEVELOPMENT

VICE-CHAIRPERSON: COMMERCE

MEMBER: JUDICIARY

LOCAL GOVERNMENT
ELECTIONS. CONGRESSIONAL &
LEGISLATIVE APPORTIONMENT &
GOVERNMENTAL STANDARDS

December 18, 1998

John Wine, Chairperson Kansas Corporation Commission 1500 Southwest Arrowhead Road Topeka, Kansas 66604-4027

Dear Commissioner Wine:

On November 5, 1998, the Joint Committee on Economic Development held a hearing on electric generation capacity constraints. At that meeting, the Committee heard presentations from: Larry Holloway; Nick Brown, Southwest Power Pool; Earnie Lehman, Western Resources; and conferees from Farmland Industries, Boeing, Vulcan, and Raytheon.

Mr. Holloway reviewed for the Committee the order issued by the Commission on November 4, initiating an investigation of the future of Kansas electric generation capacity. On behalf of the Committee, I would strongly urge Commissioners Moline, Claus, and you to proceed expeditiously with your investigation. The Committee was very concerned about the projections for reserve capacity margins in the region based on information relayed by both Mr. Holloway and Mr. Brown. Of particular note was Mr. Brown's projection that the reserve capacity margin in the region could be as low as 3.8 percent in 2001, assuming peak demand growth of 4 percent. The Committee learned that for each of the past ten years, peak demand has been greater than forecasted. For example, the summer peak growth in 1998 was 5-7 percent for the region although only 2-3 percent had been projected. These projections, coupled with the power curtailments of large Kansas commercial and industrial customers this past summer, raised questions about whether the existing and planned capacity of Kansas utilities will adequately meet growth demands in the state over the next ten years.

Also of concern to the Committee was Western Resources' request to its firm customers within its certified service territories to "shed load" on June 25-26 and July 21-22. The Committee heard several presentations from KGE customers that raised the issue of Western Resources' obligations, when confronted with power constraints, to retail customers within its certified service territories and its obligations to wholesale customers, especially out-of-state wholesale customers. The Committee encourages the Commission to consider in its deliberations whether the utility proceeded correctly in its treatment of retail customers and wholesale customers during those four days in June and July.

Senate Utilities 1-26-99 Attach. 2 Mr. Wine

The Committee was particularly concerned about the implications of energy capacity constraints for economic development. If large companies, especially firm customers, cannot rely on their electric company for the requisite amount of power needed to meet their needs, they could decide to generate their own electricity, thus increasing the burden on other ratepayers, including residential ratepayers. Unreliable power supply can affect a company's plans to relocate to Kansas, expand in Kansas, or even remain in Kansas. Therefore, the Committee would encourage you in your deliberations about the adequacy of capacity to carefully analyze the assumptions underlying the demand forecasts and planned capacity resources. Consistently understated demand forecasts and resource planning intended to meet only identified existing needs may have adverse long-term implications for economic development in Kansas.

The Committee requests that the Commission periodically update the Legislature on the Commission's proceedings on this investigation and the complaint filed by Farmland Industries requesting an investigation of interruptible contracts.

Should you have any questions about these requests, please feel free to call me at (316) 838-3066.

Sincerely,

Pat Ranson

Senator Pat Ranson, Chairperson Joint Committee on Economic Development

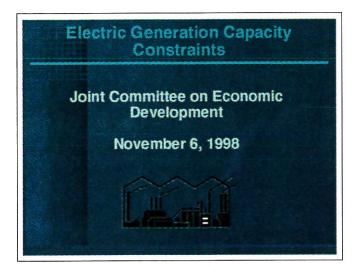
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cc: Governor Bill Graves Commissioner Brian Moline Commissioner Cynthia Claus Larry Holloway

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## Electric Generation Capacity Constraints

## **Definitions**

- Firm customers Customers whom utilities are obligated to serve, barring any unforeseen circumstances, such as natural disasters.
- Interruptible customers Customers who receive a special rate from the utility company in exchange for agreeing to having their service reduced or temporarily stopped under certain circumstances. Circumstances for service interruption may be periods of high demand or high cost periods of short supply for the utility and/or system emergencies.

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SeNATE Utilities 1-26-99 Attach 3

# Electric Generation Capacity Constraints (p. 1; Background)

## Summer 1998 - Western Resources' Actions:

- Requested 59 interruptible commercial and industrial customers to reduce electric consumption for 51 hours over an 8-day period
- Requested 100 largest firm customers to voluntarily reduce consumption on four days
- Requested all customers to conserve energy on July 20 and 21

# Electric Generation Capacity Constraints (p. 1; Background)

No outages occurred although the threat of outages and requests for reduced consumption caused considerable hardship for certain industrial customers, particularly those served by Western Resources (KGE) in Wichita.

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# Electric Generation Capacity Constraints (p. 1; Background)

## Purpose of Joint Committee's Hearing

- To explore reasons for electric capacity shortages in the Midwest
- To identify the potential short-term and long-term effects of those shortages

# Electric Generation Capacity Constraints (pp. 1-3)

Factors that Contributed to Western Resources' Capacity Constraints

- Wholesale electricity market
- Mixture of wholesale and retail electricity markets
- Generation capacity

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# Electric Generation Capacity Constraints (p. 2)

## **Wholesale Electricity Market**

- Largely deregulated market
- Transition to deregulation occurred much more quickly than had been anticipated
- Entrance of new nonutility marketers
- Increased pricing volatility and greater unreliability in wholesale purchases

# Electric Generation Capacity Constraints (p. 2)

## Mixture of Wholesale and Retail Electricity Markets

- Problems with balancing supply (sometimes dependent on wholesale, largely deregulated transactions) and demand from firm retail customers (in the regulated market)
- Transmission systems not designed for dynamic wholesale competition
- Retail wheeling authorized in several states before system can effectively handle wholesale market

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# Electric Generation Capacity Constraints (pp. 2-3) Generation Capacity Unable to Meet Demand Western Resources Circumstantial factors Systemic factors

## Electric Generation Capacity Constraints (p. 2)

**Circumstantial Factors** 

- Unusually hot weather
- Unscheduled unit outages
- Shut down of several large nuclear plants in Midwest

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# Electric Generation Capacity Constraints (pp. 2-3)

## **Systemic Factors**

- A greater increase in peak demand obligation than Western Resources had projected
- Conservative projected electric capacity margins set by the Southwest Power Pool
- Insufficient generating capacity owned by Western Resources to meet future summer peak demand
- The lack of an overarching body to determine, and enforce compliance with, uniform standards, criteria, and procedures to ensure reliability of the North American interconnected systems

# Electric Generation Capacity Constraints (p. 3)

The Southwest Power Pool is one of the ten regional reliability councils comprising the North American Electric Reliability Council

# Electric Generation Capacity Constraints (p. 3)

## Southwest Power Pool's Responsibilities:

- Helps to reduce transmission capacity constraints
- Identifies and attempts to correct weak links in the transmission system connecting utilities
- Invokes emergency procedures to prevent cascading blackouts

Southwest Power Pool Projected Capacity Margins (Source: Nick Brown, SPP)			
Peak Demard Growth	1999	2000	2001
.#%	14.4	123	10
N <sub>a</sub>	18.5	10.7	9.
Na .	126	8.9	
釉	11.8	7.2	3

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# Electric Generation Capacity Constraints (p. 3)

**Conclusion About Capacity Margins** 

For each of the past ten years, peak demand has been greater than forecasted!

Example: 1998 summer peak growth in region was 5-7 percent, although only 2-3 percent had been projected

# Electric Generation Capacity Constraints (p. 3)

Why Utilities Do Not Build Plants

- Concern of stranded investment if retail wheeling is authorized
- Long lead time for construction but growth in customer load is uncertain
- Interconnection has encouraged utilities to purchase power rather than build

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# Electric Generation Capacity 444444 Constraints

Rispion	1966-1996	1997-2006	Ofference
MAN	28	1.4	-1,8
ECAR	32	1.5	4.7
999	\$5	1.5	-2.0
SERC-Southern	34	1.8	-25
SERCITYA	3.2	2.0	-12
Singula Anna	30	1.5	4.5

Systematic Under-Forecasting of Electric Energy Growth 10-Year Average Growth (%) (Source: Judah L. Rose, PUF, November 15, 1998, p. 47)

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# Electric Generation Capacity Constraints (pp. 3-4)

## Limitations of Reliability Councils' Powers and Forecasting Accuracy

- Utilities are voluntary members of reliability councils; may leave one council and join another
- Several councils do not impose penalties on member utilities for noncompliance with capacity margin requirements
- Utilities do not plan for interruptible demand in determining capacity reserves
- Nonmembers need not submit data on their capacity projections

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# Electric Generation Capacity Constraints (p. 4)

Kansas Corporation Commission Action

Issued an order initiating an investigation of the future of Kansas electric generation capacity (November 4, 1998)

# Electric Generation Capacity Constraints (p. 4)

Western Resources' Plans for Expanded Capacity

- Summer 1999 restoration of KGE's nonoperational Neosho plant to service
- Summer 1999 purchase of additional capacity from McPherson municipal utility
- Spring 2000; Spring 2001 construction of three combustion turbines

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# Electric Generation Capacity Constraints (pp. 4-5)

## **Impact on Certain Industrial Customers**

- Changes to employees' schedules (Boeing/Raytheon)
- Very expensive to purchase power (Vulcan Chemicals/Farmland)
- Inefficient use of electricity in production processes (Vulcan Chemicals)
- Unable to meet all needs of certain customers (Vulcan Chemicals)

# Electric Generation Capacity Constraints (p. 5)

## **Committee Recommendations**

- Chairperson Ranson to write a letter to Kansas Corporation Commission (KCC) Chairperson, John Wine, relaying Committee's concern about implications of capacity constraints for economic development in Kansas
- KCC encouraged to periodically update the Legislature on Commission proceedings on generation capacity and Farmland complaint re: interruptible contracts

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