

Approved: March 28, 2003 *Carl Dean Holmes*
Date

MINUTES OF THE HOUSE COMMITTEE ON UTILITIES.

The meeting was called to order by Chairman Carl D. Holmes at 9:07 a.m. on February 3, 2003 in Room 526-S of the Capitol.

All members were present except: Representative Cindy Neighbor

Committee staff present: Mary Galligan, Legislative Research
Dennis Hodgins, Legislative Research
Mary Torrence, Revisor of Statutes
Jo Cook, Administrative Assistant

Conferees appearing before the committee:

Larry Dolci, Great Plains Energy
Bruce Graham, Kansas Electric Power Cooperatives
Mark Schuler, Great Plains Energy
Scott Poe, Aquila, Inc.
Mark Schreiber, Westar Energy
Larry Holloway, Kansas Corporation Commission
Kim Gulley, League of Kansas Municipalities

Others attending: See Attached List

HB 2037 - Repeal of sunsets on recovery of certain utility costs for use of public rights-of-way and for security.

Chairman Holmes opened the hearing on **HB 2037**.

Larry Dolci, Director of Resource Protection for Great Plains Energy, addressed the committee in support of **HB 2037 (Attachment 1)**. Addressing the sunset portion of the bill, Mr. Dolci stated that the current statute does not allow enough time to recover prudent security expenditures for projects that may take years to compete. He shared that according to the Report of the President's Commission on critical Infrastructure, the utility industry is viewed as a top target for domestic and international terrorists. Mr. Dolci told the committee that failure to upgrade systems can take them down and utilities must meet cyber threats as well as physical security threats since the electrical grid is controlled by automated systems.

Bruce Graham, Vice President of Member Services and External Affairs for the Kansas Electric Power Cooperative, appeared in support of **HB 2037 (Attachment 2)**. Mr. Graham told the committee that there are new requirements being implemented at the federal level and the measures are likely to become part of the company's standard operations. Such expenditures will need to be considered in subsequent rate filings.

Mark Schuler, Director of Resource Management for Kansas City Power and Light, testified as a proponent of **HB 2037 (Attachment 3)**. Mr. Schuler addressed Section 1 regarding recovery of right-of-way fees asking that the expiration date be eliminated from the law. He also stated that this portion of the bill was worked out with other parties.

Scott Roe, Senior Security Consultant for Aquila Inc, provided testimony in support of **HB 2037 (Attachment 4)**. Mr. Roe stated that the current political, regulatory and threat environment will require more security enhancements that cannot be completed within the present sunset provision. Additionally, the Corporation Commission has yet to establish a process by which the utilities will be allowed to request and seek recovery of security related costs.

Mark Schreiber, Senior Manager of Government Affairs for Westar Energy, appeared as a proponent of **HB 2037 (Attachment 5)**. Mr. Schreiber stated that the removal of the sunset provides a utility the long-term assurance that extraordinary costs will be paid by those who directly benefit from a local ordinance. As to the current sunset concerning the recovery of prudent costs associated with security, Mr. Schreiber said that securing their assets does not end on June 30, 2004, therefore, the recovery of those costs will not either.

CONTINUATION SHEET

MINUTES OF THE HOUSE COMMITTEE ON UTILITIES, Room 526-S Statehouse, at 9:07 a.m. on February 3, 2003.

Larry Holloway, Chief of Energy Operations for the Kansas Corporation Commission, testified as an opponent to **HB 2037** (Attachment 6). Mr. Holloway told the committee that the Commission believes that the underlying legislation is not needed and deleting the provisions to sunset it is unnecessary. They would not oppose extending the provisions for an additional year. During his testimony, Mr. Holloway referenced several attached documents dealing with various utility company specific issue tariffs that are filed with the Commission to recover costs incurred for specific actions. Mr. Holloway also distributed copies of the recent issued order under Docket No. 03-GIMX-431-GIV (Attachment 7), which is a generic investigation establishing criteria and procedures for recovery of security expenditures that utilities may seek to recover under the 2002 Session bill Substitute for Senate Bill 545.

Kim Gulley, Director of Policy Development & Communications for the League of Kansas Municipalities, appeared in opposition to **HB 2037** (Attachment 8). Ms. Gulley explained that the League was working with cities to bring them up to speed on the right of way legislation adopted last year. They are developing a model right of way management ordinance that will apply to all users of rights of way. The current legislation was never intended to permanently change the rate setting processes of the Corporation Commission and the sunset should not be removed.

Mr. Dolci, Mr. Graham, Mr. Schuler, Mr. Poe, Mr. Schreiber, Mr. Holloway and Ms. Gulley responded to questions from the committee. Additionally, Chairman Holmes requested that Mr. Holloway provide a detailed review of the order issued (see Attachment 7).

HCR 5007 - Concurrent Resolution urging FERC to take action to ensure expansion and improvement of the electric transmission system

Chairman Holmes opened the hearing on **HCR 5007**.

Bruce Graham, appearing on behalf of Kansas Electric Power Cooperative, Inc; Sunflower Electric Power Corporation; Kansas Electric Cooperatives, Inc.; Westar Energy, Inc.; Aquila, Inc.; Great Plains Energy; and Kansas Municipal Utilities, addressed the committee in support of **HCR 5007** (Attachment 9). Mr. Graham told the committee that there is a need to expand and improve the transmission system in Kansas and the US in order to improve electric system reliability and efficiently deliver power to markets. Additionally, Mr. Graham suggested an amendment that would avoid any interpretation that the state was encouraging regulations that may ultimately be detrimental. Mr. Graham responded to questions from the committee.

Written testimony in support of **HCR 5007** (Attachment 10) was submitted by Kyle Wetzel on behalf of the Kansas Renewable Energy Working Group.

Chairman Holmes closed the hearing on **HCR 5007**.

HB 2037 - Repeal of sunsets on recovery of certain utility costs for use of public rights-of-way and for security.

Additional comments were shared and the conferees responded to additional questions from the committee.

Chairman Holmes closed the hearing on **HB 2037**.

Chairman Holmes asked for bill introductions. Representative Krehbiel moved to introduce a bill that would provide further examination of the recovery of security costs. Representative P. Long seconded the motion. The motion carried. Representative Krehbiel moved to introduce a bill, modeled on legislation in Mississippi, that would provide for a fine of up to \$1000 if it is determined that the use of a cell phone contributed to an accident. Representative Reitz seconded the motion. The motion carried.

Chairman Holmes announced that there would be a sub-committee on security cost recovery and assignment to that sub-committee would be announced.

The meeting adjourned at 10:19 am.

The next meeting will be Tuesday, February 4, 2003 at 9:00 a.m.

HOUSE UTILITIES COMMITTEE GUEST LIST

DATE: February 3, 2003

NAME	REPRESENTING
Joe Long	Aquila, Inc.
Mark Schreiber	Westar Energy
Scott Roe	Aquila, Inc.
Joe Duck	KCBPU
Zuhume Solei	KCP+L
Tom Day	KCC
Cyrene Smith	GPE
Roger Randall	KCPL / GPE
Mark Schuler	KCPL / GPE
Steve Johnson	Kansas Gas Service
Bruce Graham	KEPCO
Andy Shaw	Altel
Mike Taylor	City of Wichita
XXXXXXXXXXXXXXXXXXXX	KCC
Dave Hobbes	KEC
Larry Hollang	KCC
Erik Santorius	City of Overland Park
Whitney Jamron	KS Gas Service
Tim Gertner	SBC
TRAVIS ERYAN	PNXCO

Summary
Testimony Before the Kansas House Utility Committee On HB2037
Recovery of Certain Costs by Utilities
Submitted by Lawrence Dolci
Director Resource Protection
Great Plains Energy
February 3, 2003

Great Plains Energy Company and its electrical company, Kansas City Power & Light Company support the passage of Kansas House Bill 2037 that would repeal the two year sunset provision of K.S.A. 66-1233 for the following reasons:

- The sunset provision currently in K.S.A. 66-1233 will not allow enough time to recover prudent security expenditures for projects that may take years to complete.
- Many regulatory and industry groups have issued or are about to issue security guidelines, both mandatory and voluntary that must be addressed by utilities over the next few years.
- The utility industry is in the process of evaluating threats, a process that must be completed before a means to defeat these threats can be developed. This process will not be complete within the two-year limit of K.S.A. 66-1233.
- The utility industry is viewed as a top target for domestic and international terrorists, Report of the President's Commission on Critical Infrastructure. Because utilities support the nation's critical functions such as defense, banking, finance, telecommunications, emergency services and others, utilities will be under constant pressure to upgrade their security. There is no sign the emphasis on utility security will end in the immediate future.
- Utilities must meet cyber threats as well as physical security threats since the electrical grid is controlled by automated systems. Cyber threats change daily and systems must be modified to meet the new threats frequently. Failure to upgrade systems can take them down as the recent Slammer Worm demonstrated.

The passage of HB 2037 will allow utilities to continue to make the prudent security improvements required or recommended by the industry and regulatory groups and ensure that the citizens of Kansas have reliable utility systems for the foreseeable future.

HOUSE UTILITIES

DATE: 2-3-03

ATTACHMENT 1

Testimony Before the Kansas House Utility Committee On HB2037
Recovery of Certain Costs by Utilities
Submitted by Lawrence Dolci
Director Resource Protection
Great Plains Energy
February 3, 2003

Great Plains Energy Company and its electrical company, Kansas City Power & Light Company support the passage of Kansas House Bill 2037 that would repeal the two year sunset provision of K.S.A. 66-1233.

House Bill 2037 should be passed because the current two-year recovery period in K.S.A. 66-1233 is not adequate to allow recovery of utility security expenditures that will have to be made at least over the next several years to ensure reliable service to the citizens of Kansas.

Senate Bill 545, passed during the last legislative session recognized the need to recover the considerable costs expended to provide security for utilities in the aftermath of the terrorist attacks of September 11, 2001. That bill, which became part of the statute cited above, contained a sunset provision effective July 1, 2004.

In the period immediately following the terrorist attacks of September 11th. Many utilities increased their security in anticipation of additional attacks. A number of voluntary and mandatory guidelines and regulations on cyber and physical security were issued in the months after the attacks that required or recommended additional security. New regulations and guidelines continue to be issued and have forced utilities to continue to spend significant amounts on security. For example the Nuclear Regulatory Commission, NRC, immediately after the September 11th attacks ordered nuclear power plants to upgrade security. The NRC has continued to issue new, tighter regulations on a regular basis and has proposed even more stringent guidelines. While the details of the NRC regulations cannot be discussed, because they are classified, their impact will be increases in equipment and manpower costs at the Wolf Creek Nuclear plant near Burlington.

The Federal Energy Regulatory Commission, FERC, has issued proposed guidelines that will require significant security improvements for electric utilities that market wholesale power. A copy of these guidelines is attached as exhibit 1. Implementation of these guidelines will be a multi-year project.

The North American Electric Reliability Council, NERC, who is responsible for the reliability of the national electric grid has also issued a series of cyber and physical security guidelines and plans to issue more. A copy of some of these relevant guidelines is attached as exhibit 2. Compliance with the existing NERC guidelines is a process that will take many years and there is every reason to believe that additional guidelines will be issued. Setting an arbitrary two year time limit for recovery will not allow recovery of

the unanticipated substantial outlays for security that are being required or strongly suggested for utilities.

The United States Department of Energy also issued a list of best practices for utilities shortly after the attacks of September 11th. While these guidelines are voluntary they do set a standard against which utilities will be judged in the security area. A set of these guidelines is attached as Exhibit Three.

Electric utilities have just begun a process to evaluate ways to protect or replace crucial cyber and physical pieces of the electrical grid should they be attacked. This work is being done at the national level through NERC and at the state level by the Kansas electric utilities. The process of identifying the critical pieces of the systems and then determining the best way to protect or repair them if attacked will take years. For example, after the identification of critical components utilities must evaluate whether a stockpile of spare equipment should be established. Such a stockpile is only feasible if the components can be readily interchanged between utilities, an issue that requires more study.

The electric utilities are also conducting studies on vulnerabilities of large components of the transmission system and how they might be protected on site. Work on these issues has just begun as well. Specific tests have identified vulnerabilities but studies on ways to mitigate these physical threats have just begun.

Work also continues on identifying cyber vulnerabilities and mitigating them. This is critical since the electrical grid is controlled with automated systems that could be attacked. The United States Department of Energy has issued guidelines on protecting these systems. They are attached as exhibit 3. Implementation of the DOE guidelines could also take years

Other states are also starting to address the issue of cost recovery for security measures as Kansas did in the last legislative session. SB 290 was introduced this session in the Missouri Senate to allow recovery of security costs by utilities. This bill is very similar in its language to the current Kansas Statute; however, it does not include a sunset provision.

Removal of the sunset provision from K.S.A. 66-1233 as proposed in HB 2037 will benefit the citizens of Kansas by helping to make sure utilities have the funding available to follow sound security practices, practices that will provide for reliable utility systems for the foreseeable future.

Security Standards for Electric Market Participants

PURPOSE

Wholesale electric grid operations are highly interdependent, and a failure of one part of the generation, transmission or grid management system can compromise the reliable operation of a major portion of the regional grid. Similarly, the wholesale electric market – as a network of economic transactions and interdependencies – relies on the continuing reliable operation of not only physical grid resources, but also the operational infrastructure of monitoring, dispatch and market software and systems. Because of this mutual vulnerability and interdependence, it is necessary to safeguard the electric grid and market resources and systems by establishing minimum standards for all market participants, to assure that a lack of security for one resource does not compromise security and risk grid and market failure for the market or grid as a whole.

The purpose of these standards is to ensure that electric market participants have a basic Security Program protecting the electric grid and market from the impacts of acts, either accidental or malicious, that aren't authentic or could cause wide-ranging, harmful impacts on grid operations and market resources. A basic Security Program for electric grid and market resources (hereafter referred to as market resources) shall cover governance, planning, prevention, operations, incident response, and business continuity.

Security standards for market resources will primarily focus on electronic systems, which include hardware, software, data, related communications networks, control systems as they impact the grid or market, and personnel (hereafter the word cyber shall refer to all of these

aspects). In addition, physical security will be addressed to the extent that it is necessary to assure a secure physical environment for cyber resources.

This initial set of security standards represent a minimum set of measures derived from commonly accepted industry standards and practices, such as the Common Criteria, CTSEC, ITSEC, IPSEC, ISO 17799, NIST Guidelines, and the NERC Security Guidelines. Market participants are encouraged to review their individual situation and tolerance for risk and implement a Security Program that goes beyond these basic security standards herein.

APPLICATION

These standards are intended to ensure that appropriate mitigating plans and actions are in place, recognizing the role of the participant in the marketplace and the risks being managed. For the purpose of these security standards, participants are defined as, and the standards shall apply to:

- The market operations of RTO's and ISO's, and their market connections to Control Areas,
- Marketers,
- Transmission Owners,
- Power Producers,
- Load serving entities and other power purchasers,
- NERC and the Reliability Authorities, and
- Tagging (or other similar dispatching) Organizations.

Further, if a power-generating unit participates directly in the grid (i.e. it is electronically dispatched by control centers), the plant control system shall comply with these security

standards. If a power-generating unit participates directly in the electric market (i.e. submits Tagging requests), its market systems shall also comply with these security standards.

COMPLIANCE

These security standards shall become effective on January 1, 2004. Beginning 2004, on January 1 of each year, every participant shall file with FERC a self-certification signed by an officer of the company indicating compliance with these standards and identifying any areas of non-compliance. Failure to comply with these security standards will result in loss of direct access privileges to the electric market.

Malicious acts directed against the electric market, shall be prosecuted by FERC and law enforcement agencies to the full extent of the law, including the recovery of damages.

SECURITY STANDARDS

Governance:

Participant senior management shall designate a management official to be responsible for establishing and managing a basic Security Program for electric market functions and resources.

Security Scope:

Participants shall define their security perimeter, identify the boundaries and defenses for physical and cyber security that delineate and protect the critical resources under their control. The security perimeter shall identify all entry and exit points and the requirements for access controls. A Security Program and policy based on, and implementing these security standards shall be developed to protect critical electric grid and market functions and resources within the security perimeter and at entry and exit points where personnel, supplies or communications may

come and go. Additionally, related procedures shall be created that guide implementation and enforcement of the security standards. Policy and procedures shall be reviewed for appropriateness (due to changes in personnel, technology, equipment configuration, vulnerabilities and threats) as necessary, and at least annually.

Asset Classification and Control:

Electric market assets within the security perimeter shall be classified as to their criticality in maintaining and protecting electric market functions. A classification system shall further define appropriate levels of protection for each level of criticality, and access rights that will be granted for each level of criticality. All critical assets within the perimeter (computers, networks, doorways, etc.) shall have a custodian who ensures that those assets are handled in accordance with their assigned classification scheme.

Personnel:

Any personnel who are authorized access within the security perimeter, or are authorized access to administer, operate or maintain assets within the security perimeter shall be trained on the Security Program and security standards related to their respective positions. This training shall start upon employment, be repeated annually and at career points where significant responsibilities change. Security awareness training shall be provided to all staff.

To the extent permitted by law, personnel required to administer or operate assets classified as critical (according to the participant's classification system) shall undergo background investigation conducted prior to employment, upon promotion to such positions (if not a new hire), and at periodic intervals (not to exceed five years). The participant shall review the results of the background checks and take appropriate action. Individuals shall be disqualified from

administering, operating or accessing critical assets if the individual meets any disqualifying criteria specified by the Federal Bureau of Investigation, Office of Homeland Security, RCMP, or other federal agency.

Access Control:

A process such as transaction logs shall be in place to identify individual users of critical systems and their time of access. Procedures for critical electric grid and market resources within the security perimeter shall be developed that establish and monitor controls for:

- 1) The assignment of both logical and physical access rights (as defined in the classification system);
- 2) The prompt disabling of access rights when positions are terminated or job responsibilities no longer require access; and
- 3) The annual re-evaluation of assigned access rights.

Such authorized personnel -- including visitors and service vendors -- shall only have access (whether logical or physical) to electric market resources within the security perimeter that they are authorized for. Any and all unauthorized personnel allowed temporary access within the security perimeter shall be escorted at all times.

Systems Management:

Procedures for critical electric market resources within the security perimeter shall be developed to monitor and control cyber assets, such as:

- Computers,
- Software,
- Data,
- Servers,

- Routers,
- Modems, and
- Communications channels, whether owned or leased.

At a minimum, these procedures shall address:

- 1) The use of effective password routines that periodically require changing of passwords, including the replacement of default passwords on newly installed equipment;
- 2) Authorization and re-validation of computer accounts;
- 3) Disabling of unauthorized (invalidated, expired) or unused computer accounts;
- 4) Disabling of unused network services and ports;
- 5) Secure dial-up modem connections;
- 6) Firewall software (for routed Internet access);
- 7) Intrusion Detection Systems (for networked routers and firewalls);
- 8) Host based intrusion or system failure detection for critical systems;
- 9) Patch management;
- 10) Installation and update of anti-virus software checkers.

For critical electric systems, operator logs and Intrusion Detection System logs shall be maintained for the purpose of checking system anomalies and for evidence of suspected unauthorized activity. Appropriate procedures for securing control systems that are critical to the grid or market shall be developed and employed. The procedures shall address:

- 1) Remote access including modems and other means;
- 2) Security patch management, as appropriate;
- 3) Assurance that communication channels are adequate so as not to impact the performance of the control system and its critical functions; and

- 4) Assurance that system procedures do not impact the performance of the control system and its critical functions.

Procedures for critical electric resources within the security perimeter shall be established to monitor and control physical features, such as:

- Doors,
- Windows,
- Floor space,
- Environmental systems,
- Backup power systems – whether owned or leased.

At a minimum, these procedures shall address:

- 1) Appropriate security barriers and entry controls; 2)
- 2) Mechanical and electronic key and badge programs; 3)
- 3) Access locking of unattended assets; and, 4)
- 4) Protection from environmental threats and hazards (e.g., loss of cooling).

Critical electric facilities shall restrict the distribution of maps, floor plans and equipment layouts pertaining to those facilities, and restrict the use of signage indicating critical facility locations.

Planning:

Security requirements for critical electric systems within the security perimeter shall be identified, documented and agreed upon prior to development, procurement, enhancement to, installation of and acceptance testing for cyber resources or related physical features. For critical control systems, this means developing cyber security procedures to augment existing test and/or acceptance procedures.

Development and testing of critical electric market systems shall be conducted in system environments that are not interconnected with operational system environments.

Incident Response:

Organizations with critical electric market resources shall have incident response procedures, which define roles, responsibilities and actions to rapidly detect and protect electric resources in the event of harmful or unusual incidents, whether accidental or malicious.

Organizations with critical electric market resources shall report incidents to the Electricity Sector – Information Sharing and Analysis Center (ES-ISAC) and use reporting criteria, thresholds and procedures contained in NERC's Indications, Analysis and Warning (IAW) Program.

Business Continuity:

Every participant operating a critical electric resource shall have contingency plans that define roles, responsibilities and actions for protecting the rest of the electric grid and market from the failure of its own critical resources. Those plans should further define the roles, responsibilities and actions needed to quickly recover or reestablish electric grid and market functions, processes and systems, in the event that a critical physical or cyber resource fails or suffers harm or attack. Such plans shall be tested or exercised regularly.

REFERENCES

The North American Electric Reliability Council (NERC) has established and maintains Security Guidelines for the Electricity Sector. NERC also provides a list of additional sources for security

best practices. These references shall be helpful in developing organization specific security standards and procedures for critical market resources.

ADDENDUM

Annual Self-Certification of Compliance with FERC Security Standards
(Due January 31, 2004, and every January 31st thereafter)

Date: _____

Subject: FERC Filing, Annual Self-Certification re: FERC Security Standards

From: _____(organization name)
_____(organization address)
_____(organization address)
_____(organization address)

This organization certifies the following items regarding FERC security standards for grid-market systems, as of this date:

Compliant	Non-Compliant	
?	?	Management assignment of grid-market system security.
?	?	Security Perimeter defined and documented.
?	?	Security Program and Policy developed and documented.
?	?	Policy, standards, and procedures reviewed at least annually.
?	?	An Asset Classification system defined and implemented.
?	?	Security training requirements for personnel with access to critical assets have been met.
?	?	All personnel receive security awareness training at least annually.
?	?	Critical asset administrators and operators have had background screening within last five years.
?	?	Access control procedures for authorized personnel are implemented.
?	?	Unauthorized personnel inside security perimeter are escorted at all times.
?	?	Cyber procedures for system security have been developed and implementation monitored for compliance.
?	?	Physical procedures for system security have been developed and implementation monitored for compliance.
?	?	Security requirements for developing and testing critical systems have been documented.
?	?	Software development systems are not interconnected with operational systems.
?	?	Incident response plans are implemented.
?	?	ES-ISAC reporting and alert notification procedures are implemented.
?	?	Business continuity plans are established and exercised.

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Explanation for Non-Compliant Items:

Name: _____(print)
_____(title)
_____(signature)

**Security Guidelines for the Electricity Sector:
Physical Security**

<i>NERC</i>	<i>Guideline</i>
Guideline Title: Physical Security	Version: 1.0
Revision Date:	Effective Date: June 14, 2002

Purpose:

Each company should consider implementing physical security measures to safeguard personnel and prevent unauthorized access to critical equipment, systems, material, and information at critical facilities.

Applicability:

This guideline applies to facilities and functions that are considered critical to the support of the electricity infrastructure and the overall operation of the individual company.

Each company is free to define and identify those facilities and functions it believes to be critical, keeping in mind that the ability to mitigate the loss of a facility through redundancies may make that facility less critical than others.

A critical facility may be defined as any facility or combination of facilities, if severely damaged or destroyed, would have a significant impact on the ability to serve large quantities of customers for an extended period of time, would have a detrimental impact to the reliability or operability of the energy grid, or would cause significant risk to public health and safety.

Guideline Statement:

This guideline recommends "best practices" for the electricity sector in the area of physical security for facilities or functions identified as critical. It may be used in conjunction with the Vulnerability and Risk Assessment guideline, which assists companies in identifying critical facilities.

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Security Guidelines for the Electricity Sector: Physical Security

Guideline Detail:

Physical security typically comprises five distinct elements, or systems:

- deterrence
- detection
- assessment
- communications
- response

Together, these elements provide a consistent “systems approach” to protecting critical assets.

Each company should prioritize its critical facilities and assets; characterize risks based on factors such as prior history of incidents, threat warnings from law enforcement agencies, system redundancies, overall operating requirements, etc. Each company also should consider an inspection and survey program to review existing security systems and to make recommendations for appropriate changes. (See guideline for conducting vulnerability assessments.)

In determining the types of physical security systems required for critical facilities, companies should consider the following:

- fencing and gates to restrict access to the facility for both safety and security purposes;
- limiting access to authorized persons through measures such as unique keying systems, “smart locks,” access card systems, or the use of security personnel;
- access control measures to identify and process all personnel, visitors, vendors, and contractors, (i.e. photo ids, visitors passes, contractor ids) to be displayed while on company property;
- alarm systems to monitor entry into control rooms or other critical facilities;
- perimeter alarm systems to monitor unauthorized intrusion into the facility;
- recorded CCTV systems which can provide local or remote surveillance capability of a given facility;

Security Guidelines for the Electricity Sector: Physical Security

- roving security patrols or fixed station security staffing;
- alarms, CCTV, and other security systems reporting to the facility or to a central security station which can then be evaluated and company personnel or law enforcement authorities dispatched to investigate a potential problem;
- vehicle barriers;
- projectile barriers;
- security survey program;
- adequate lighting;
- signage; and
- a comprehensive security awareness program.

Physical security systems should be augmented based on changes in threat levels, scenarios, and categories. In designing a physical security system, the objective of the aggressor should be considered. The four major objectives in describing an aggressor's behavior are:

- Destroying or damaging critical facilities, property, or equipment,
- Stealing or damaging critical equipment, materials, or information,
- Posing a threat to the safety of personnel or customers, and
- Creating adverse publicity.

Exceptions:

Certified Products/Tools:

Security Guidelines for the Electricity Sector: Physical Security

Related Documents:

- Security Guidelines for the Electricity Sector: Guideline Overview
- Security Guidelines for the Electricity Sector:
 - Vulnerability and Threat Assessment
 - Threat Response
 - Emergency Plans
 - Continuity of Business Processes
 - Communications
 - Cyber Security
 - Employment Background Screening
 - Protecting Potentially Sensitive Information
- *An Approach to Action for the Electricity Sector, Version 1*, NERC, June 2001, <http://www.nerc.com>
- *Threat Alert Levels and Physical Response Guidelines*, NERC, November, 2001, <http://www.nerc.com>
- *Threat Alert Levels and Cyber Response Guidelines*, NERC, March 2002, <http://www.nerc.com>

Revision History:

Date	Version Number	Reason/Comments

1-18

DRAFT

**VULNERABILITY AND RISK
ANALYSIS PROGRAM**

Lessons Learned and Best Practices



**U.S. Department of Energy
Office of Critical Infrastructure Protection**

September 28, 2001

1-19

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1 INTRODUCTION

1.1 OBJECTIVE

This report summarizes initial lessons learned and best practices that have been captured as part of a multifaceted effort by the U.S. Department of Energy's Office of Critical Infrastructure Protection (OCIP) to work with the Energy Sector in developing the capability required for protecting the nation's energy infrastructures. Over the last three years, a team of national laboratory experts, working in partnership with the energy industry, has performed a series of vulnerability assessments as part of OCIP's Vulnerability and Risk Analysis Program (VRAP) (formerly the Infrastructure Assurance Outreach Program [IAOP]). The goal is to help energy-sector organizations identify and understand the threats to and vulnerabilities (physical and cyber) of their infrastructures, and to stimulate action to mitigate significant problems. Because the assessments are conducted on a confidential basis, the information in this report is intentionally presented at a high level so as not to reflect on specific companies or industry segments. A separate report entitled *Vulnerability and Risk Analysis Program Assessment Methodology* describes, at a high-level, the methodology developed for the program.

1.2 BACKGROUND

The U.S. Department of Energy established the Office of Critical Infrastructure Protection within the Office of Security and Emergency Operations in October 1999 to direct the Department's activities in accordance with Presidential Decision Directive 63 (PDD-63) and the priorities established by the Secretary of Energy. The primary mission of the Office is to work with the national Energy Sector in developing the capability required for assuring the Nation's energy infrastructures. This mission encompasses the physical and cyber components of the electric power, oil, and natural gas infrastructures, the interdependencies among these components, and the interdependencies with the other critical national infrastructures. The mission also includes identifying DOE technologies and capabilities that can help assure our nation's critical energy infrastructures and facilitating their use by the private sector and other federal agencies.

The VRAP is an integral part of the overall OCIP strategy in Critical Infrastructure Protection where the Department, as the federal government lead agency for the Energy Sector, partner's with industry to address vital issues of mutual interest. The specific objective of the VRAP program is to partner with the energy industry (electric power, oil, and natural gas) to "develop and implement a Vulnerability Awareness and Education Program for their sector" to enhance the security of the energy infrastructure, as directed by PDD-63. To accomplish the mission, the program is designed to develop, validate, and disseminate an assessment methodology with associated tools to assist in the implementation; provide training and technical assistance; and stimulate action to mitigate significant problems.

Eleven voluntary assessments have been completed under the VRAP initiative (several more are in progress and in the planning stages). The initial assessments focused on the electric power

industry, with efforts aimed at the broadest level of the industry. Assessments addressed key energy organizations whose operations, if disrupted, would have broad regional or national impact. More recently, assessments have included the natural gas industry, and discussions have begun with the oil industry.

In addition to VRAP, OCIP has initiated a multiyear research and development program—the Energy Infrastructure Interdependency Program—to develop cost-effective technologies and capabilities (e.g., databases, methodologies, and tools) for increasing our understanding of and our ability to analyze interdependencies among the energy infrastructures and between energy infrastructures and other critical national infrastructures (e.g., water supply systems, telecommunications, transportation, banking and finance, and emergency and government services). These technologies and capabilities will help the Department, Energy Sector organizations, and other public and private-sector infrastructure service providers assess the technical, economic, and national security implications of energy technology and policy decisions designed to ensure the security of our nation’s interdependent energy systems. Other OCIP initiatives are aimed at working with industry and government to develop/enhance plans for response and reconstitution of essential capabilities and services and working with state and municipal government organizations and utilities to prepare energy disruption guidelines for local communities. All of OCIP’s activities are closely coordinated and mutually supportive.

1.3 REPORT ORGANIZATION

The remainder of this report is organized as follows. Section 2 presents and discusses best practices. Section 3 discusses the lessons learned compiled by the VRAP team. These lessons are organized around the ten interrelated elements of the assessment methodology. Finally, Section 4 provides a summary of this effort.

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2 BEST PRACTICES

2.1 BACKGROUND AND SCOPE

Effective operation of the U.S. energy production, transmission, and distribution systems are critical to the health and safety, national security, and economic viability of the nation. Such system operations are becoming increasingly dependent on information systems and other interdependent infrastructures. Even though energy sector information systems have not yet been subject to the same type or intensity of physical and information attacks as other infrastructures, there is growing concern that these systems are becoming more vulnerable. Furthermore, threats associated with critical infrastructures appear to be increasing, thus raising concerns for vital energy infrastructure components and systems. Utility deregulation and advances in technology also contribute to the potential for increased vulnerabilities of our critical energy supply and delivery systems. In addition, as the business model adapts to the new, information-intensive economy, supply chain dependencies increase and interdependencies grow.

The modern energy industry is in the midst of a dynamic era defined by rapid changes in technology (the Internet, information technology), the development of new business models (driven by deregulation, acquisition, and diversification), and the emergence of new internal and external threats (ranging from disgruntled employees to hackers to terrorists). At the same time, there is limited knowledge about threat assessment processes, vulnerability assessment methodologies and tools, and integrated risk management approaches. Descriptions of the new threats and vulnerabilities facing the industry, and recommended actions to address those threats and vulnerabilities, are provided in the recently released North American Electric Reliability Council report *An Approach to Action for the Electricity Sector* and the National Petroleum Council report *Securing Oil and Natural Gas Infrastructures in the New Economy*. The underlying theme in these reports is that vulnerabilities are increasing, they relate to the fundamental evolution of energy enterprises, and holistic efforts are required to address them.

The initial best practices presented below have been assembled as part of the Department's VRAP initiative to help energy-sector organizations identify and understand the threats to and vulnerabilities of their infrastructures. They are intended to highlight key issues relating to the protection of the nation's energy infrastructures, and to stimulate action where appropriate.

2.2 BEST PRACTICE RECOMMENDATIONS

To facilitate discussion, the best practices are grouped into three major issue categories: organization, education and awareness, and staffing. In each category, a series of best practice recommendations are stated followed by supporting background information. While the best practices were derived from the VRAP assessments, they are illustrative, and should not be viewed as comprehensive. That is, because the VRAP assessments are conducted on a

confidential basis, the information is intentionally presented at a high level so as not to reflect on specific companies or industry segments.

Organizational Issues

Organizational issues focus on best practices from a holistic approach. Specifically, they represent activities that should be on going at an enterprise-wide level.

- 1. Best Practice: Develop an overarching enterprise security model that is comprehensive, consistent with the mission and values of the organization, and widely accepted within the organization.**

Organizations should have an overarching security model that integrates both physical and cyber security. A security model establishes the suite of goals that guide development and implementation of security systems, processes, policies, and procedures. The model functionally embodies the risk posture of the organization, at least in the context of security. Such a model enables more balanced decisions on security-based risk acceptance and helps reconcile consideration of competing factors that have an impact on the risk and security condition of the enterprise. Such a model forms the basis for many security-related policies and procedures that can be disseminated throughout the organization. It also is particularly useful when dealing with organizational partners and suppliers.

- 2. Best Practice: Develop clear and direct lines of authority with dedicated staff for security, and ensure that responsibility and authority for security is integrated, not dispersed. A strong, accountable advocate at the executive level, with broad corporate acceptance of the role of security in protecting enterprise interests, is vital.**

Organizations should have dedicated staff with clear lines of authority regarding security that require or at least encourage uniform treatment of security. Many organizations have evolved lines of authority that parse security functions, responsibility, and authority among several organizational elements. This often creates confusion and conflict in developing security policies, their implementation, and administration. Furthermore, it enables (in some cases inspires) some organizational elements to conduct their missions in ways that clearly expose other elements to increased risk. Having dedicated, responsible staff for implementing security is desirable if not essential for effective security.

- 3. Best Practice: Incorporate security into enterprise risk management processes.**

Security should be incorporated into existing risk management processes. For many organizations, risk management is a purely financial function that relates more to acquisitions and mergers, facility siting, safety, or insurance than to asset protection, particularly for information systems. This has two principal impacts. First, security investment decisions lack the benefits that could be provided by a rigorous risk management approach. Second, the lack of integration of security in other risk management investment decisions means that gaps will likely exist in risk acceptance.

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Furthermore, investments in vulnerability mitigation will likely be lower than is merited by the risk exposure.

4. Best Practice: Implement structured security requirements for critical suppliers and partners. Make security reviews an element of contracts for critical services and periodically evaluate compliance.

Contracts for supplies and services should include provisions addressing security. The same is true of partnering agreements. Since many of the suppliers, service providers, and partners require either or both physical and electronic access, their vulnerabilities are inherited by the enterprise contacting or partnering with them. Additionally, if the supplies are software, firmware, hardware, or information technology (IT) systems, the capacity to provide secure products or services depends on *their* internal security controls. While traditional remedies exist (e.g., lawsuits and financial losses through degradation of reputation), these are never desired options and they are compromised if there has been no expression of the need for security. Mutual understanding of security expectations at the outset of a relationship is important, and establishing expectations in the original contract will facilitate such understanding and avoid undesirable events and their consequences. The further benefit of establishing such contract requirements is that corporate policies must be established to provide a reasoned basis for establishing expectations of the subcontractor.

5. Best Practice: Develop a consistent designation and valuation of critical assets, and develop the means to assure the security of these assets.

Organizations should establish procedures for identifying critical assets. This is particularly important for information technology assets, which are not as fully understood as physical assets. Understanding asset criticality is important for several reasons. First, decisions regarding protection of enterprise assets are more difficult than for an element of the enterprise because it requires a comprehensive knowledge of all assets to be protected. Second, the likelihood that all employees and partners will have a common appreciation for the importance of an asset is low, making inadvertent loss more probable. Third, the likelihood of human error, particularly by new employees, that compromises an important asset is higher. Lastly, an enterprise often relies upon other infrastructures for support, ranging from law enforcement to telecommunication services.

6. Best Practice: Carefully consider security issues associated with any organizational changes and communicate the issues to all staff potentially affected by the changes. Make security part of the corporate culture and corporate goals.

Organizational change generally increases vulnerabilities. Utilities that change their organizational structures or create uncertainty about such changes are more vulnerable for two reasons. First, clear delineation and universal understanding of roles, responsibilities, authorities, and accountabilities (R^2A^2), as well as organizational functions and processes, are absent following organizational changes. Gaps can develop as the new organization is implemented, creating weaknesses and vulnerabilities that may go undiscovered for lengthy periods. The greater the change in organizational mission or structure, the more profound the potential vulnerabilities and duration of their existence. Second, uncertainty regarding organizational change (especially mission, goals,

functions, etc.) serves to delay implementation of prudent security measures. At a more fundamental level, dysfunctional elements of the organization compound the problem by creating confusion. A culture of security should be developed within the organization.

7. Best Practice: Monitor security efficiency and performance to ensure a robust security program and to ensure that corporate competitive strategies do not undermine security.

Ill-considered competitive strategies can erode security. The energy industry, like other industries, is under pressure to reduce costs. Organizations must be careful as they reduce costs so that they do not also erode security. Outsourcing is one activity that must be carefully considered and structured if security is to be maintained. Mergers and acquisitions increase vulnerabilities during the periods when disparate systems are being integrated, legacy system access is increased, and organizational elements are merged (or discarded). Globalization may decrease costs or offer larger markets, but open enterprises to cultures with different business priorities and motivations. Similarly, internal functions that cannot be directly traced to revenue generation are often targets for cost reduction. Security is rarely viewed as a means to ensure continued revenue flow or growth, but more often as potentially unnecessary or even as an impediment to implementation of low-cost business systems or processes. Finally, downsizing can affect security posture in many ways, such as increasing the pool of disgruntled current or former employees; but principally by reducing the skill level of those entrusted with security functions, or overtaxing the remaining security team.

8. Best Practice: Periodically review and update emergency plans to include newer threats and vulnerabilities, and test these plans regularly.

Emergency plans and business continuity plans need updating and testing regularly through emergency drills and exercises. Employees should be educated about the existence of plans, when they are activated, and what their roles and responsibilities are when they are activated. Because threats and vulnerabilities continue to evolve, these emergency plans should be reviewed, updated, and tested to ensure that these concerns are properly addressed.

9. Best Practice: Implement appropriate configuration management across all enterprise IT systems. Be particularly attentive to systems that interface with critical assets.

Configuration management is crucial even for “non-critical” systems. Absence of good configuration control inevitably opens information networks and systems to vulnerabilities. Lack of adequate staffing, lack of universal awareness of the value of the information and systems, and incomplete, outdated, or unenforced security policies and procedures increase the likelihood that such systems will be violated. The increasing trend to connect administrative computing networks to energy control networks (albeit with safeguards) increases the likelihood that vulnerabilities in non-critical systems will migrate to critical systems.

Education and Awareness Issues

Education and awareness issues focus on activities that organizations can perform to train and educate their employees, contractors, vendors, and customers. These activities, when implemented properly, can cost-effectively increase the level of security across the entire enterprise.

10. Best Practice: Raise employee awareness to be more proactive on security. Establish and implement policies and procedures for controlling and validating “trust” allocation.

Trust is often extended beyond appropriate levels. Industry has enjoyed and valued a culture of trust that is increasingly imprudent, particularly in the cyber dimension. Access to important systems, networks, and facilities should only be granted with due consideration of the need for such access. Increasing threats due to growing competition, erosion of workforce loyalty, growing sophistication of hackers, dependence on contract employees, and outsourcing argue for more discretion and control in assigning trust. Organizations should establish the means to differentiate trust levels and associated accesses and privileges. They should also establish processes to implement that differentiation.

11. Best Practice: Develop a means to raise and sustain management and employee awareness of physical and cyber threats.

Physical and cyber threat awareness needs to be increased enterprise wide. Utilities have only recently begun to experience external cyber attacks, or be the targets of organized groups. For example, the electric power industry has experienced no customer loss of service due to cyber attack. However, major changes in the industry, technology, and society, have created a more hostile world (e.g., the September 11, 2001, terrorist attacks on the World Trade Center and the Pentagon). While many organizations understand this and have begun to take steps to address this new world, general awareness and coordinated efforts to ensure protection have not been broadly adopted. In part, the message is that the threats are ubiquitous and growing, but this has not been effectively communicated to the domestic energy industry. Utilities should have programs that increase staff awareness of threats. In general, law enforcement and government have only marginally aided this awareness. They are hindered by a culture that focuses on reaction rather than prevention, and secrecy rather than communication. These cultures are changing, but slowly. Existing communications mechanisms (e.g., through NERC and industry security groups) need to be enhanced and new mechanisms need to be established, where necessary, to provide sensitive threat information to industry.

12. Best Practice: Develop and adopt means to ensure that both reliability and security missions are understood, as well as their respective roles in ensuring enterprise success.

Reliability is often confused with security. Reliability is being able to sustain delivery of service with few and/or minor disruptions. Security however protects the means to provide such reliability as well as achieve the many other desired outcomes of the enterprise (e.g., stockholder confidence, profitability, growth, customer loyalty, positive

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brand image). Many people in the energy industry confuse these two topics. Indeed, one of the common terms in assuring electric reliability is “security” (basically, the ability of the electric grid to withstand some level of disruption and still function effectively). Since reliability is predominantly defined by natural events, human error, or random equipment failure, few pay significant attention to potential for malicious events and coordinated attacks (particularly when the history of the industry is one of relatively little domestic malicious activity, and essentially no terrorist activity).

13. Best Practice: Senior management should be periodically briefed and trained on information systems technology and their security, as well as risk management methodologies, analysis, and tools.

“New economy” vulnerabilities are elusive for management. The explosion of information technology and its use in vital business functions, has created a knowledge and experience gulf between those in senior management, many of whom have little experience with such technologies, and those younger managers who have such experience. Many senior managers, faced with decisions regarding the myriad of risks they do understand, have difficulty allocating the resources (organizational, managerial, and monetary) to addressing information security challenges that they do not understand. The challenge of information security is educating senior decision makers on the information technologies employed, the vulnerabilities their use presents, and the means to mitigate risks associated with those vulnerabilities.

Staffing Issues

Staffing issues focus on the difficulty of obtaining the right mix of physical and IT security staff.

14. Best Practice: Security training should be supported as a vital element of risk reduction. Participation in associations advancing security knowledge should be encouraged.

The energy industry is suffering from the same shortage of skilled information security staff as all other organizations. Many organizations have resorted to “home grown” information security expertise. While many of these staff are committed, talented, and knowledgeable people, unless large investments in training are made, these individuals can have significant gaps in their knowledge and experience. Even staff assigned traditional security functions (such as physical security) can suffer from inadequate training, particularly in small organizations.

3 LESSONS LEARNED

In addition to the best practices described in Section 2, the VRAP assessment teams have documented a number of lessons learned that correspond to each of the ten interrelated elements of the assessment methodology. These elements are: analyze the network architecture; assess the threat environment; conduct penetration testing; assess physical security; conduct a physical asset analysis; assess operations security; examine policies and procedures; conduct an impact analysis; assess infrastructure interdependencies; and conduct a risk characterization. In most cases, these lessons illustrate and highlight the best practices. They are presented to stimulate industry thinking towards more secure infrastructures as new threats and vulnerabilities evolve and as old threats and vulnerabilities resurface.

3.1 NETWORK ARCHITECTURE

- The corporate network of the modern utility has numerous external connections to public and private networks. Connections are used to communicate with customers and offer new electronic services such as online bill presentment and payment. Cyber security should be a primary concern of utilities operating in this new interconnected environment. An enterprise-wide IT security architecture should be developed.
- LAN/WAN networks and system architectures should be documented fully.
- The trend in IT is to outsource more and more functions. Cyber security, however, should remain as an enterprise function, and not become a contractor function.
- Logging and reporting should be enabled on routers and firewalls to gain a better understanding of remote systems and user access.
- Mission critical systems should be identified, and scanning should be performed on these systems. In addition, intrusion detection should be used to detect both internal and external intrusions into critical network systems. Additional layers of security should be included with critical systems (e.g., SCADA systems).

3.2 THREAT ENVIRONMENT

- Disenchanted current and discharged employees pose a significant threat to utilities.
- Criminal threats need to be considered (both organized crime and white-collar crime).
- Background investigations for new hires and periodic updates for current employees can assist in avoiding problems.

- Increased coordination with local law enforcement agencies can assist utilities in better understanding their threats.

3.3 PENETRATION TESTING

- Sensitive and confidential documents should not be placed on websites. Appropriate document review, classification, and access controls should be implemented. This also applies to documents and other information that is found in newsgroups, media sites, and other linked sites.
- Security measures such as traffic filtering, authorized controls, encryption and access controls, minimizing or disabling of unnecessary services and commands, minimizing banner information, and email filtering and virus control should be implemented.

3.4 PHYSICAL SECURITY

- A formal physical security program is essential. Such a program should include listing critical assets, developing a mission statement, defining threats, defining acceptable risks, and applying a vulnerability assessment methodology.
- A formal process for accessing relevant threat information and for contacting the proper law enforcement agencies should be instituted (if it does not already exist) and reviewed and updated on a regular basis. Industry needs to work with government to obtain security clearances for appropriate personnel.
- Appropriate security measures (e.g., access controls, barriers, badges, intrusion detection devices, alarm reporting and display, closed circuit television cameras, communication equipment, lighting, and security officers) should be implemented.
- Top management support is critical in ensuring a successful security program.
- Security training programs should be formalized.
- Procedures for escorting contractors into sensitive areas should be enhanced.
- Security should be incorporated in the company goals as well as in its corporate culture.

3.5 PHYSICAL ASSET ANALYSIS

- Capital expenditures for physical security should be compared to other capital expenditures to ensure proper levels of investment.

- Companies should compare their operating procedures with best practices and procedures used by other industry members to ensure efficiency, reliability, and security.

3.6 OPERATIONS SECURITY

- A five-step program of identifying critical assets, analyzing threats, analyzing indicators and vulnerabilities, assessing risk, and applying appropriate countermeasures should be implemented to enhance the security of a company's sensitive assets.
- The foundation for security is well-informed employees acting responsibly.
- A formal review process should be established for all information released to the public, particularly through the company's web site. A periodic review of "public" information should be performed to audit performance.
- A utility should be particularly careful about the loss of sensitive information to the press or competitors. Information available on personnel (especially executives) should be minimized.
- Security training and awareness should be provided to all employees on a regular basis.
- At a minimum, an annual audit of overall security should be conducted.

3.7 POLICIES AND PROCEDURES

- Formalized policies and procedures provide a foundation for achieving the desired level of security.
- Security policies and procedures need to be promulgated and integrated throughout the organization. Inconsistencies, confusion, and ultimately security gaps can result if business units or sub-organizational groups establish their own policies and procedures.
- Awareness training and education should include security policies and procedures.

3.8 IMPACT ANALYSIS

- Estimates of the potential consequences, including economic implications, of not mitigating identified vulnerabilities or addressing security concerns are necessary in order to effectively apply risk management approaches to evaluate mitigation and security recommendations.
- Outages resulting from a security failure(s) can lead to degradation of company reputation and loss of business in a competitive marketplace.

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3.9 INFRASTRUCTURE INTERDEPENDENCIES

- Interdependencies among the infrastructures must be thoroughly investigated because they can create subtle interactions and feedback mechanisms that often lead to unintended behaviors and consequences. Problems in one infrastructure can cascade to other infrastructures.
- Interdependencies increase the complexity of the infrastructures and introduce additional vulnerabilities.
- Interdependencies among the infrastructures vary significantly in scale and complexity, and they also typically involve many system components. The process of identifying and analyzing these linkages requires a detailed understanding of how the components of each infrastructure and their associated functions or activities depend on, or are supported by, each of the other infrastructures.
- Contingency and response plans need to be evaluated from an infrastructure interdependencies perspective and coordination with other infrastructure providers needs to be enhanced.

3.10 RISK CHARACTERIZATION

- A more complete understanding of risk and risk management, as well as more effective risk communication, is needed at all levels of management.
- A risk management process needs to address the costs, benefits, and uncertainties associated with security and vulnerability mitigation recommendations. Such information will aid in establishing priorities and developing a defensible plan of action.
- The risk management process for addressing security concerns should be integrated into the corporate risk management process.

4 SUMMARY

The initial lessons learned, best practices, and observations presented in this report are intended to highlight key issues relating to the protection of the nation's energy infrastructures, and to stimulate action where appropriate. The information was assembled as part of the Department's VRAP initiative to help energy-sector organizations identify and understand the threats to and vulnerabilities (physical and cyber) of their infrastructures. Additional lessons learned and best practices are being captured and documented by the national laboratory team as part of the ongoing VRAP assessment program, and this draft report will be periodically expanded and enhanced to disseminate relevant information.

On the basis of the eleven assessments that have been conducted, it is clear that comprehensive vulnerability assessments can play a major role in helping energy organizations identify and address risks. It is also clear that such assessments should be conducted on a regular basis to identify new vulnerabilities that may have emerged as a result of the changing threat environment and efforts by organizations to evolve in the competitive marketplace.

The energy industry is not alone in facing these risks. Many of the same vulnerabilities would likely be identified in the other critical infrastructures (e.g., water supply systems, telecommunications, transportation, banking and finance, and emergency and government services). Nevertheless, the industry as a whole would benefit from more concerted attention to common vulnerabilities, particularly those that cross enterprise boundaries. This includes addressing interdependencies with the other critical infrastructures, which adds a whole new dimension to the risk equation. The development and application of risk management methodologies and tools that explicitly incorporate security should be a high priority.



Kansas Electric Power Cooperative, Inc.

Testimony on House Bill 2037 House Utilities Committee – February 3, 2003

*Bruce Graham, Vice President of Member Services and External Affairs
Kansas Electric Power Cooperative, Inc. (KEPCo)*

Kansas Electric Power Cooperative, Inc. (KEPCo) supports House Bill 2037. This bill would remove the sunset provision on a law approved in 2002 (Sub SB 545) that was designed to expedite the recovery of reasonable and prudent costs to improve security at Kansas generation, transmission and other critical utility facilities. The bill also authorized utilities to recover increasing costs imposed by municipalities without the need for a rate proceeding.

Many jurisdictional utilities in Kansas have recently undergone a comprehensive rate review. KEPCo, for example, completed a full rate case in February 2002 but the rate case was developed and filed in the first part of 2001. Since that time, homeland security mandates have required and will continue to require significant unanticipated investment in generation and transmission safety. New requirements are being implemented by the Nuclear Regulatory Commission, the Federal Energy Regulatory Commission, National Electric Reliability Council and other organizations. These voluntary and mandatory measures are likely to become part of our standard operations and such expenditures will necessarily be considered in a subsequent rate filing.

Parties understood that before a security cost adjustment would be enacted under the provisions of Sub SB 545, the filing would be subject to some level of review by the KCC. In fact, the KCC is currently in the

HOUSE UTILITIES

DATE: **2-3-03**

ATTACHMENT **2**

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process of finalizing the rules and regulations for that evaluation. Consequently, by the time a utility prepares the necessary documents to file and ultimately receive a regulatory decision, there may be less than a year before the authority to recover these expenses evaporates. Furthermore, it appears the KCC intends to require the utility to demonstrate that its total rate of return is deficient before they will be permitted to recover demonstrated and required incremental security cost increases. This proposed oversight also renders a sunset provision unnecessary.

Thank you for the opportunity to appear on HB 2037.

KEPCo is a generation and transmission utility that provides wholesale electricity and other services to 19 rural distribution cooperatives with member/consumers spanning two-thirds of rural Kansas.

Testimony
Before the Kansas House Utilities Committee
Hearing on H. 2037
Recovery of Certain Costs by Utilities
February 3, 2003

Mark D. Schuler
Director, Resource Management
Kansas City Power & Light

Kansas City Power & Light appreciates the opportunity to submit this testimony on House Bill 2037. I will address Section 1 of the bill, regarding recovery of right-of-way fees imposed upon utilities by the municipalities they serve.

We respect the processes that Kansas municipalities may choose to govern or manage right-of way use within their respective city limits. Furthermore, we respect the right of cities and towns within our service territory to assess reasonable charges and fees for certain types of utility operations, notwithstanding that KCP&L already pays annual franchise fees ranging from approximately three to ten percent in the 43 Kansas municipalities that we serve.

We believe that law passed last year is a fair solution for allowing recovery of additional costs to municipalities beyond those covered in established franchise fees, but encouraging restraint in using these relationships as a revenue-producer for the municipalities general funds. The sunset provision was added as a compromise with the LKM.

We now ask that the provisions established last year to be enacted permanently, and that the scheduled expiration date of June 30, 2003, be eliminated from the law.

We continue to observe signs of interest by cities throughout the state in using the rights of way as revenue-producing assets *and, in effect, using the utilities as their tax collectors*. Obviously, to allow this would expose utilities to additional cost pressures that would further add to the challenges of maintaining rate stability.

More importantly, without the law these costs ultimately would be incorporated into the general rate structure for all customers, meaning that customers living outside of such municipalities may be asked to bear a portion of these fees. We feel that such a scenario is inherently unfair.

We encourage you to vote in favor of H 2037. Thank you for allowing us to submit testimony on this important bill.

HOUSE UTILITIES

DATE: 2-3-03

ATTACHMENT 3

Substitute for SENATE BILL No. 545

AN ACT relating to public utilities; concerning public right-of-way and certain fees and costs; providing for recovery of certain costs of security measures of certain public utilities.

Be it enacted by the Legislature of the State of Kansas:

Section 1. As used in sections 1 and 2, and amendments thereto:

(a) "Public right-of-way" means only the area of real property in which the city has a dedicated or acquired right-of-way interest in the real property. It shall include the area on, below or above the present and future streets, alleys, avenues, roads, highways, parkways or boulevards dedicated or acquired as right-of-way. The term does not include the easements obtained by utilities or private easements in platted subdivisions or tracts.

(b) "Public utility" means all public utilities as defined in K.S.A. 66-104, and amendments thereto, except that it does not include any public utilities included in the definitions set forth in K.S.A. 66-1,187, and amendments thereto.

Sec. 2. (a) Without prejudice to a public utility's other rights and authorities, a public utility which is assessed by a city and collects and remits fees associated with the utility's use, occupancy or maintenance of such utility's facilities in the public right-of-way may file a tariff with the state corporation commission to add to such utility's end-user customer's bill, statement or invoice a surcharge equal to the pro rata share of any such fees.

(b) Costs which are incurred by a public utility in excess of those normal and reasonable costs incurred by a public utility applying good utility practices due to actions of a city's governing body may file a tariff with the state corporation commission to add to the bill, statement or invoice of each end-user customer located within such city through a surcharge equal to a pro rata share of such costs.

(c) For purposes of this section and section 2, and amendments thereto, costs shall not include expenses specifically covered by any other cost recovery mechanism in existence as of April 1, 2002, including but not limited to franchise fees and relocation expenses.

(d) The fees and costs incurred by the utility identified in subsections (a) and (b) in excess of the amount included in the utility's existing rates shall be subject to review by the state corporation commission upon filing for recovery of the costs in a surcharge. Upon a finding by the commission that (1) the fees included for recovery in such surcharge were required to be paid by the utility as the result of action of the governing body of a city, (2) the costs were incurred as a result of action of the governing body of such city, (3) such costs were reasonably incurred to meet the requirements imposed by the governing body of such city and (4) the surcharge is applied to bills in a reasonable manner and is calculated to substantially collect the increase in fees and costs charged on the books and records of the utility, or reduce any existing surcharge based upon a decrease in fees and costs incurred on the books and records of the utility, the commission shall approve such tariffs within 30 days of the filing. If the commission determines that the surcharge is not applied to bills in a reasonable manner, the costs or portions thereof do not meet the above requirements or that the calculation is not adequately supported by the documentation provided in the filing, the commission, at its option, may either disapprove such tariff within 30 days of the filing and require re-submission by the utility, suspend the effective date of the tariff for an additional 60 days to receive appropriate documentation from the utility and/or modify such tariff in a manner that recovers in a reasonable manner the costs or portions thereof which meet the above requirements. Any over or under collection of the actual fees and costs charged to expense on the books of the utility shall be either credited or collected through the surcharge in subsequent periods. The establishment of a surcharge under this section shall not be deemed to be a rate increase for purposes of this act.

(e) Upon the filing of a tariff with the corporation commission pursuant to this act, the utility shall deliver to the affected city a complete copy of the filing. Such copy shall be delivered within 10 days of the filing with the corporation commission.

Sec. 3. (a) Section 1, and amendments thereto, shall affect only such costs and fees which are incurred between April 1, 2002, and June 30, 2003.

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(b) The provisions of this section and sections 1 and 2, and amendments thereto, shall expire on June 30, 2003.

Sec. 4. (a) As used in this section:

(1) "Electric public utility" means any electric public utility, as defined in K.S.A. 66-101a, and amendments thereto.

(2) "Natural gas public utility" means any natural gas public utility, as defined in K.S.A. 66-1,200, and amendments thereto.

(b) On and after July 1, 2002, the state corporation commission, upon application and request, shall authorize electric public utilities and natural gas public utilities to recover the utility's prudent expenditures for security measures reasonably required to protect the utility's electric generation and transmission assets or natural gas production and transportation assets by an adjustment to the utility's customers' bills. The application and request shall be subject to such procedures and conditions, including review, in an expedited manner, of the prudence of the expenditures and the reasonableness of the measures, as the commission deems appropriate. Such application and request shall be confidential and subject to protective order of the commission.

(c) The provisions of this section shall expire on July 1, 2004.

Sec. 5. This act shall take effect and be in force from and after its publication in the Kansas register.

I hereby certify that the above BILL originated in the SENATE, and passed that body

SENATE concurred in
HOUSE amendments _____

President of the Senate.

Secretary of the Senate.

Passed the HOUSE
as amended _____

Speaker of the House.

Chief Clerk of the House.

APPROVED _____

Governor.



Aquila

Scott R. Roe, CPP
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Testimony of
Scott Roe, Senior Security Consultant
Aquila, Inc.
In Support of HB 2037

Mr. Chairman and Members of the Committee:

My name is Scott Roe and I am Senior Security Consultant for Aquila, Inc. formerly UtiliCorp United, Inc., WestPlains Energy, Peoples Natural Gas and Kansas Public Service. Aquila serves over 180,000 natural gas and electric customers in 178 cities and towns in central and western Kansas. We appear today in support of House Bill 2037 that would remove the sunset provision to allow a pass-through to our customers on security-related expenditures for the following reasons:

1. Aquila believes that the current political, regulatory and threat environment will require more security enhancements that cannot be completed within the present sunset provision. Specific examples of this intent include:
 - a. Tom Ridge's recent declaration from the Department of Homeland Security (01/24/03), that states more than 80 percent of the nation's critical infrastructure is owned and operated by the private sector, and an attack against a business or industry is an attack against the U.S.
 - b. FERC Hearing, Washington, D.C. (01/06/03), in which they comment that current security requirements are not "best practices" and they intend to establish more security standards.
 - c. Recent probes by unidentified persons to gain physical access, via social engineering, to a critical infrastructure in the Kansas City area (InfraGard – KC-FBI) (01/29/03).
 - d. The potential for conflict with Iraq and/or other countries will create a greater threat to U.S. Critical Infrastructure from both domestic and international terrorist organizations, which will require greater security-related expenditures.
2. Aquila acknowledges beyond the probability of further enhancements, that Aquila and many other utilities are still deploying security enhancements needed to meet current regulatory and industry guidelines, and that these efforts will likely go beyond the initial sunset provision.
3. Finally, the Kansas Corporation Commission has yet to establish a process by which the utilities will be allowed to request and seek recovery of their homeland security-related costs and capital expenditures. This delay has thus far impacted the utilities ability to meet the sunset provision.

In consideration of the above, Aquila requests that the Kansas Legislature adopt House Bill 2037, as written, amending K.S.A. 66-1232 and 66-1233.

Respectfully Submitted:

Scott R. Roe, CPP
Senior Security Consultant
Aquila Inc.

HOUSE UTILITIES

DATE: 2-3-03

ATTACHMENT 4

**Testimony before the
House Utilities Committee**

By

Mark Schreiber, Senior Manager Government Affairs

Westar Energy

February 3, 2003

Chairman Holmes and members of the committee, I am Mark Schreiber, senior manager, government affairs for Westar Energy.

I am here this morning to present Westar Energy's support of House Bill 2037. The bill addresses the removal of two sunset provisions. The first sunset is take effect June 30 of this year and pertains to the recovery of excessive right-of-way costs incurred by a public utility in complying with a local ordinance. The type of ordinances envisioned by this statute included such items such as:

- requiring installation of underground service instead of the standard overhead service, or
- requiring aesthetic improvements beyond those normally associated with utility work.

The statute provides for the recovery of these exceptional costs through a surcharge to those local customers who receive the benefit of such work. It should not be the responsibility of those customers living outside the jurisdiction of the local ordinance to incur higher rates due to the actions of a local council.

In addition, many localities are experiencing decreased revenues on a number of fronts. Local ordinances, which dictate increased right-of-way fees or improvements may enhance a locality's revenue potential. However, all the customers in our service territory should not pay for that local ordinance. Instead, they should be recovered through the use of this statute in cooperation with the Kansas Corporation Commission.

The removal of the sunset provides a utility the long-term assurance that extraordinary costs will be paid by those who directly benefit from a local ordinance.

The second sunset to be requested for repeal concerns the recovery of prudent costs associated with providing security to a utility's generation and transmission assets. This sunset is set to take effect June 30, 2004. The protection of these vital assets is essential for our economy and benefits every customer. Security is a 24-hour a day, 365 day a year activity. Securing our assets will not end June 30, 2004. Thus recovery of those costs is needed as long as is prudent and allowed by the Kansas Corporation Commission.

Westar Energy requests that you approve the repeal of both sunsets to ensure costs are recovered appropriately and in a reasonable manner.

HOUSE UTILITIES

DATE: 2-3-03

ATTACHMENT 5

**BEFORE THE HOUSE UTILITIES COMMITTEE
PRESENTATION OF THE
KANSAS CORPORATION COMMISSION
February 3, 2003
HB 2037**

Thank you Chairman and members of the Committee. I am Larry Holloway, Chief of Energy Operations for the Kansas Corporation Commission. I appreciate the opportunity to be here today to testify for the Commission on HB 2037.

The purpose of my testimony is to provide information and perspective on HB 2037 and the legislation it intends to extend by removing current sunset provisions. The Commission does not support HB 2037. The Commission believes the underlying legislation this bill attempts to extend is unnecessary, premature and potentially poor public policy. While the Commission is fully sympathetic with the legislature's desire to establish emergency means to address national security issues, it believes such reaction was intended to be short term and the Commission believes it should not be extended indefinitely.

It is important to recognize that the underlying legislation addresses two types of unusual and atypical costs that may confront a public utility. The first type is when actions by a local governmental body cause a public utility to pay additional costs for service to a portion of its customers within the limits of the local governmental entity. This is addressed by the newly enacted statute K.S.A. 66-1231 which addresses actions by local governments that may cause a utility to experience unusual and excessive costs for use of public right of way. The second type of unusual and atypical costs is that in which an electric or gas public utility may experience additional costs for service to all of its customers due to some external situation well outside the control of the utility. This is addressed by newly enacted statute K.S.A. 66-1233 which addresses excessive and unusual costs an electric or natural gas public utility may experience to address changes in internal security in reaction to a change in national security awareness and requirements following the events of September 11, 2001.

HOUSE UTILITIES
DATE: 2-3-03
ATTACHMENT 6

It is important for the Committee to understand that the Commission has the responsibility and authority to address both situations without these new statutes, and in fact has addressed each in the past.

The Commission has encouraged and approved tariffs for several Kansas utilities, including KCPL, Westar's KGE division and Westar's KPL division, to address actions taken by local government that could increase costs for electric and gas utilities. I have handed out to the Committee copies of KGE and KPL's "Relocation of Facilities Tariff" and KCPL's "Municipal Underground Service Rider. As shown, KPL's and KGE's Relocations of Facilities Tariff provides a mechanism for KPL or KGE to recover costs incurred when specific actions by a governmental subdivision require KGE or KPL to either relocate or bury existing or new facilities at a cost in excess of the cost absent such governmental action. KCPL's Municipal Underground Service Rider provides a similar mechanism for KCPL to recover its costs should an governmental subdivision require KCPL to construct underground facilities when KCPL would normally construct overhead facilities absent such governmental action.

Similarly the Commission has encouraged and approved tariffs allowing Kansas electric and gas utilities to recover unexpected and unpredictable costs that are beyond the utility's control. An example of this is the purchased gas adjustment, or PGA, for gas utilities and the energy cost adjustment, or ECA, for electric utilities. In the late seventies and early eighties the Commission and utilities worked together to address rising and variable energy costs by instituting a pass-through mechanism for energy costs. Today virtually all of our natural gas utilities have a PGA mechanism, an example of which is KGS's "Cost of Gas Rider" which has been passed out to the committee. In addition several of our electric utilities, including Midwest Energy, Sunflower, and Westplains Energy have an ECA mechanism, an example of which is Westplains Energy's "Energy Cost Adjustment Clause" which has been passed out to the committee.

As shown, the Commission already has the responsibility and authority to take any needed action to implement mechanisms for additional costs utilities may face due to actions

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beyond their control, be they local governmental actions or larger economic or political conditions. Furthermore the Commission's actions have been consistent with establishing that all customers bear the costs when the condition affects the cost of serving all customers, and that only specific customers bear the costs when the condition arises from the actions of the specific customer's local government.

While the Commission has the authority to address the actions of local governments and the effects of larger economic and political conditions, and has in the past, it does not favor adoption of prescriptive requirements in statute for several reasons. First, the Commission has the ability and the expertise to thoroughly investigate each issue and to establish rules and policies after a comprehensive debate and review of the facts, a luxury often not available during the typical hectic and short legislative session. Second, the Commission has the ability to quickly modify such a policy if it finds that it is being abused, needs revision or is no longer needed due to changing circumstances. Without a sunset provision, legislation stays in place until it is changed. Finally, while this legislation was enacted a year ago, there has yet to be a single filing before the Commission and therefore it may be premature to consider an indefinite extension.

As stated, the Commission believes the underlying legislation is not needed and therefore deleting provisions to sunset the legislation is unnecessary and potentially poor public policy. The Commission requests that the legislature not adopt HB 2037. However the Commission would not oppose extending the provisions for an additional year. This would allow utilities to apply under the provisions of the existing legislation and allow the legislature to evaluate the need for such prescriptive legislation.

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KANSAS GAS SERVICE
A DIVISION OF ONEOK, INC.
(Name of Issuing Utility)

SCHEDULE COGR

All Rate Areas

(Territory to which schedule is applicable)

Replacing Schedule COGR Sheet 1
which was filed April 27, 2000

No supplement or separate understanding shall modify the tariff as shown hereon.

Sheet 1 of 6 Sheets

COST OF GAS RIDER

APPLICABILITY

This rider is applicable to the RS, GSk, GST, and GGGR rate schedules. In addition, certain provisions of this rider may be applicable to customers taking transportation service under rate schedules GTk, GTt, CNG, LVtk, LVTt and WTt. Service is subject to the DEFINITIONS AND CONDITIONS section below.

NET MONTHLY CHARGE

1. All factors shall be calculated to the nearest \$0.0001/Mcf. All charges set forth in the rate schedule under which the customer takes service shall also apply.
2. The Net Monthly Gas Charge shall be the charges, if any, for the volume (in Mcf) of sales service gas delivered to a customer during the billing period multiplied by the Net Gas Cost (NGC) on a rate area specific basis.
3. Line Loss Limitation: In the event the line loss factor for the Computation Year exceeds the limit value of 4.00%, the Company shall compute the BGC using the 4.00% limit value rather than the actual value.
4. NGC shall be the sum of all factors described in this rider as determined by the formula:

$$NGC = BGC + ACA + SR + OC$$

Where:

BGC = Base Gas Cost. BGC shall be the projected weighted average cost of gas (per Mcf) purchased by Company from all supply sources. The annual projection and any revised projections throughout the Computation Year shall be calculated according to the formula:

$$\frac{P + E + S + G}{(.01) V}$$

Issued _____

Effective _____
Month Day Year
JAN 30 2003

By Larry G. Willer
LARRY G. WILLER, DIRECTOR

03-KGSG-514-TAR
Noted & Filed
Kansas Corporation Commission
January 30, 2003
/s/ Thomas A. Day

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KANSAS GAS SERVICE
A DIVISION OF ONEOK, INC.
(Name of Issuing Utility)

SCHEDULE COGR

All Rate Areas
(Territory to which schedule is applicable)

Replacing Schedule COGR Sheet 2
which was filed April 27, 2000

No supplement or separate understanding shall modify the tariff as shown hereon.

Sheet 2 of 6 Sheets

COST OF GAS RIDER

Where:

P = The estimated total dollar cost of gas to be sold calculated by summing the products of: the most recent unit cost of purchased gas from each supplier and the estimated purchase volumes from each supplier, and the most recent unit cost of transportation services, as defined in 18 CFR 284 or as approved by the Commission, and the estimated transportation service to be purchased from each supplier.

This amount shall be reduced by the estimated dollar Cost of Gas Offsets from the As-Available Gas Sales schedule.

In the event that changes in the rates paid for purchased gas will take place within the Computation Year, as specified by contract provisions currently in effect, the estimated unit cost of purchased gas from each supplier or the estimated average unit cost of transportation services for the Computation Year may be used in the calculation in place of the most recent unit cost.

E = The estimated (positive or negative) net cost of exchange gas transactions expected to occur during the Computation Year. This item shall not include transactions related to gas in storage.

S = The estimated cost of gas to be withdrawn from storage and sold, during the Computation Year.

G = Estimated costs for gathering services provided to Company during the Computation Year.

V = The estimated volume of sales service gas in Mcf for the Computation Year.

Issued _____

Effective Month Day Year
JAN 30 2003

By Larry G. Willer
LARRY G. WILLER, DIRECTOR

03-KGSB-514-TAR
Noted & Filed
Kansas Corporation Commission
January 30, 2003
/S/ Thomas A. Das

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KANSAS GAS SERVICE
A DIVISION OF ONEOK, INC.
(Name of Issuing Utility)

SCHEDULE COGR

All Rate Areas

(Territory to which schedule is applicable)

Replacing Schedule COGR Sheet 3
which was filed April 27, 2000

No supplement or separate understanding shall modify the tariff as shown hereon.

Sheet 3 of 6 Sheets

COST OF GAS RIDER

ACA = Actual Cost Adjustment. The annual difference, if any, between the BGC projected for the preceding Computation Year and actual recoveries of costs of gas to meet sales service requirements shall be charged or credited through the ACA Factor.

a. The monthly differences between the BGC projected and actual recoveries of cost of gas shall be summed to produce a cumulative total under/over recovered cost at the end of each Computation Year. This balance, divided by the total volumes of sales service gas delivered during the preceding Computation Year, shall be the ACA Factor.

(1) Actual cost of gas shall exclude refunds.

(2) Cost of Gas recovered shall be the sum of BGC, ACA, and the actual Cost of Gas Offsets from the As-Available Gas Sales schedules.

b. The ACA Factor shall be filed with the Commission and applied to sales service gas beginning with the next monthly billing cycle. The ACA Factor shall remain in effect until superseded by a subsequent calculation.

SR = Supplier Refunds. Supplier Refunds of Company's payments in excess of those ultimately authorized by the governing regulatory body, including interest received, shall be credited to the refund reserve accounts and refunded to customers through the Supplier Refund factor.

a. The Supplier Refund factor shall be the amount credited to the refund reserve account. If the Supplier Refund factor is less than \$0.0010/Mcf, the refund shall be held in the reserve accounts until the close of the current Computation Year, at which time it shall be applied to the total accumulated under/over recovery for the ACA calculation.

If the Supplier Refund factor is equal to or greater than \$0.0010/Mcf, Company shall include the Supplier Refund factor as a negative adjustment to the cost of gas purchased by Company to meet sales service requirements. Any balance remaining in Company's refund reserve accounts upon completion of a refund shall be held until the close of the current Computation Year, at which time it shall be applied to the total accumulated under/over recovery for ACA calculation.

Issued _____

Effective Month Day Year
JAN 30 2003

Month Day Year

By Larry G. Willer
LARRY G. WILLER, DIRECTOR

03-KGS6-514-TAR
Noted & Filed
Kansas Corporation Commission
January 30, 2003
/s/ Thomas A. Day

WJR
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KANSAS GAS SERVICE
A DIVISION OF ONEOK, INC.
(Name of Issuing Utility)

SCHEDULE COGR

All Rate Areas

(Territory to which schedule is applicable)

Replacing Schedule COGR Sheet 4
which was filed April 27, 2000

No supplement or separate understanding shall modify the tariff as shown hereon.

Sheet 4 of 6 Sheets

COST OF GAS RIDER

- b. Company shall report to the Commission its intended Supplier Refund plan within 30 days after its receipt of each refund. The refund period shall generally be 12 months, except as lengthened or shortened by Company to avoid a total refund which is materially above or below the refundable amount.
- c. Nothing contained herein shall preclude the Commission from modifying the Company's refund procedure on a case-by-case basis.

OC = Other Charges or Credits. Other Charges or credits shall be included as a separate component of the Cost of Gas and included only to the extent provided by a separate schedule, rider, or section of COGR, and approved by the Commission.

- a. Overrun Penalties: Overrun penalties shall be separately accumulated. Company shall maintain a continuing monthly comparison of the actual penalties paid and the amount recovered from customers. The differences of the comparisons shall be accumulated to produce an Accumulated Penalty Balance. The Accumulated Penalty balance shall be reduced by the amount of Overrun Penalties credited to Electronic Flow Measurement (EFM) devices pursuant to EFMR rate schedule. An Accumulated Penalty Recovery Factor shall be calculated annually by dividing the accumulated balance of under/over recovered penalties by the volume of actual sales during the Computation Year. The Accumulated Penalty Recovery Factor shall be a component of the OC. The Accumulated Penalty Balance shall be adjusted by the monthly penalty under/over recovery.

Issued _____

Effective Month Day Year
JAN 30 2003

By LARRY G. WILLER, DIRECTOR

03-KGS6-514-TAR
Noted & Filed
Kansas Corporation Commission
January 30, 2003
/s/ Thomas A. Day

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KANSAS GAS SERVICE
A DIVISION OF ONEOK, INC.
(Name of Issuing Utility)

SCHEDULE COGR

All Rate Areas

(Territory to which schedule is applicable)

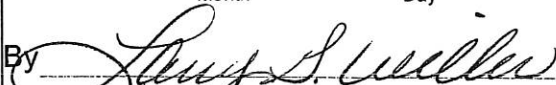
Replacing Schedule COGR Sheet 5
which was filed March 13, 2002

No supplement or separate understanding shall modify the tariff as shown hereon.


Sheet 5 of 6 Sheets

COST OF GAS RIDER

- b. Capacity Release: Company shall forecast the capacity release credits expected to be received during the Computation Year. Company shall then calculate an Estimated Capacity Release Factor by dividing 50% of the forecast by estimated sales during the same period. The Estimated Capacity Release Factor shall be a component of the OC. Company shall maintain a continuing monthly comparison of the actual capacity release credits received and the capacity release credits distributed. The differences of the comparisons shall be accumulated to produce an Accumulated Capacity Release Balance. An Accumulated Capacity Release Factor shall be calculated annually by dividing the accumulated balance of under/over distributed credits by the volume of actual sales during the Computation Year. The Accumulated Capacity Release Balance shall be adjusted by the monthly capacity release under/over disbursements.
- c. Gas Hedge Program: Company shall operate its Gas Hedge Program pursuant to the Commission's orders in Docket No.98-KGSG-475-CON.
 - (1) Cost and revenues associated with any purchase or sale of financial derivatives, the net balance of which shall not exceed \$7.3 million per year, shall be recovered as an OC component during the months of April through October. This charge shall be calculated by dividing the projected net balance by the sales volumes projected to occur in the months of April through October.
 - (2) Costs and revenues generated from the settlement of financial derivatives related to Gas Hedge Program sales shall be flowed back as an OC component during the months of April through March. The flow-back amounts by month shall be based on monthly settlement amount.
 - (3) Costs and revenues generated from the settlement of financial derivatives related to storage injection shall be included in the weighted average cost of gas in storage.
 - (4) Costs and revenues associated with the management and utilization of Company's storage by an outside party during the summer injection period shall be included in the OC component during the months of April through October.

Issued _____
 Effective _____
 Month Day Year
 JAN 30 2003
 Month Day Year
 By 
 LARRY G. WILLER, DIRECTOR

03-KGSG-514-TAR
 Noted & Filed
 Kansas Corporation Commission
 January 30, 2003
 /S/ Thomas A. Day


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THE STATE CORPORATION COMMISSION OF KANSAS

INDEX NO. TJ.6

KANSAS GAS SERVICE
A DIVISION OF ONEOK, INC.
 (Name of Issuing Utility)

SCHEDULE COGR

All Rate Areas
 (Territory to which schedule is applicable)

Replacing Schedule COGR Sheet 6
 which was filed March 13, 2002

No supplement or separate understanding shall modify the tariff as shown hereon.

Sheet 6 of 6 Sheets

COST OF GAS RIDER

- d. Gas Cost Assistance Program (GCAP): The cost of discounts provided under the GCAP authorized by the Commission in Docket No. 01-KGSG-494-TAR shall be recovered as an increase to the BGC. An amount equal to the GCAP discounts shall be transferred from the deferred account for Ad Valorem Tax Refunds as a reduction to the BGC.

DEFINITIONS AND CONDITIONS

1. All provisions set forth in the rate schedule under which a customer takes service apply to the extent they are not superseded by provisions of this rider.
2. The Computation Year, consisting of the 12 month period ending June 30, shall be the base period for calculation unless otherwise specified.
3. Appropriate Net Gas Costs are those which are properly included in FERC Account Nos. 800, 801, 802, 803, 804, 805, 806, 808, 809, 811, 824.20, and 824.30.
4. A monthly report shall be filed with the Commission, describing the costs associated with gas and transportation services purchased by Company to meet sales service requirements and included in this rider. The report shall detail the calculations for Base Gas Cost and shall reflect all factors applicable to Net Gas Cost as well as any relevant current or deferred balances.

Issued _____

Effective _____
 Month Day Year
JAN 30 2003

By Larry G. Willer
 LARRY G. WILLER, DIRECTOR

03-KGSG-514-TAR
 Noted & Filed
 Kansas Corporation Commission
 January 30, 2003
 /s/ Thomas A. Day

490
6-9

KANSAS GAS AND ELECTRIC COMPANY d/b/a Westar Energy
(Name of Issuing Utility)

SCHEDULE ROFT

ENTIRE SERVICE AREA
(Territory to which schedule is applicable)

Replacing Schedule ROFT Sheet 1

which was filed May 19, 1993

No supplement or separate understanding shall modify the tariff as shown hereon.

Sheet 1 of 3 Sheets

RELOCATION OF FACILITIES TARIFF

If any governmental subdivision requires Company to construct, remove, or relocate ("change") Distribution or Transmission facilities ("required facilities") when Company, absent such requirement, would do otherwise, and where the recovery of the additional cost for such change is not otherwise provided for, the cost incurred by Company to make such change shall be assessed against the customers located within the governmental subdivision through a monthly surcharge ("Surcharge") as follows:

1. If the required facilities are in lieu of new facilities, Company shall estimate the cost of the required facilities and of the facilities which otherwise would have been installed ("planned facilities"). Any cost of the required facilities in excess of the planned facilities shall be the basis for the Surcharge.
2. If the required facilities replace existing facilities which Company would otherwise maintain or modify in place, Company shall estimate the cost of the required facilities and any planned modifications to existing facilities. Any cost of the required facilities in excess of the cost of any planned modifications to existing facilities plus the cost of removing existing facilities shall be the basis for the Surcharge.
3. If the required facilities replace existing facilities which Company would not otherwise maintain or modify, the cost of the required facilities plus the cost of removing the existing facilities less their salvage value shall be the basis for the Surcharge.
4. Company's costs of planned and required facilities shall be as follows:
 - a. Costs of planned facilities shall include applicable material and labor costs, including allocation of indirect costs. Indirect costs are comprised of supervision, engineering, transportation, material handling, and administrative cost functions that support actual construction. The amount of the allocation of indirect costs is derived by application of unit costs or allocation percentages, determined from historical experience.

Issued _____

Month Day Year

Effective with bills rendered on and after June 4, 2002

Month Day Year

By Kelly B. Harrison

Kelly Harrison, Vice President

02-MSRE-301-RTS *Jjm*

Approved

Kansas Corporation Commission

May 15, 2002

/s/ Jeffrey S. Masaman

KANSAS GAS AND ELECTRIC COMPANY d/b/a Westar Energy
(Name of Issuing Utility)

SCHEDULE ROFT

ENTIRE SERVICE AREA
(Territory to which schedule is applicable)

Replacing Schedule ROFT Sheet 2

which was filed May 19, 1993

No supplement or separate understanding shall modify the tariff as shown hereon.

Sheet 2 of 3 Sheets

RELOCATION OF FACILITIES TARIFF

- b. Costs of required facilities shall include the cost items identified in subparagraph a. plus all costs of complying with the requirements of the governmental subdivision including any application process of the governmental subdivision, including the cost of preparing the application, costs of developing alternatives not already studied by Company, cost of estimating the cost of alternatives not already studied by Company, the production of data for consideration in any hearing, and any other direct cost of compliance including any hearing held.

- 5. The basis for the Surcharge, as determined under paragraphs 1, 2, or 3, and 4 above, shall be recovered from all customers within the governmental subdivision through the Surcharge. Said Surcharge shall be the amount necessary to recover the basis and Company's associated cost of capital and income taxes in a period of time approved by the Kansas Corporation Commission, not longer than seven years. Subject to review and approval by the Kansas Corporation Commission, the governmental subdivision may determine whether the Surcharge shall be calculated and billed on a per customer basis, energy usage basis or some combination thereof. Surcharge shall be shown as a separate line item on the customer's bill. In the absence of such governmental subdivision determination, the Surcharge shall be calculated and billed on a per customer basis.

- 6. Company shall file a notice of the Surcharge with the Kansas Corporation Commission and shall file a copy with the affected governmental subdivision and provide copies to customers who have requested that the notice be sent to them. The notice shall state the following:
 - a. the reason for the Surcharge;
 - b. the estimated amount of the Surcharge;
 - c. the period of time over which the Surcharge shall be made;
 - d. the number of electric customers within the governmental subdivision.

Issued _____

Effective with bills rendered on and after June 4, 2002

By Kelly B. Harrison
Kelly Harrison, Vice President

02-MSRE-301-RTS
Approved *JSM*
Kansas Corporation Commission
May 19, 2002
/s/ Jeffrey S. Massaman

KANSAS GAS AND ELECTRIC COMPANY d/b/a Westar Energy
(Name of Issuing Utility)

SCHEDULE ROFT

ENTIRE SERVICE AREA
(Territory to which schedule is applicable)

Replacing Schedule ROFT Sheet 3

which was filed May 19, 1993

No supplement or separate understanding shall modify the tariff as shown hereon.

Sheet 3 of 3 Sheets

RELOCATION OF FACILITIES TARIFF

- 7. The Surcharge may be included in bills rendered in any governmental subdivision 30 days after placing the first required facility in service or the removal of a facility required to be removed or 60 days after filing notice of the terms of the Surcharge with the Kansas Corporation Commission, whichever occurs later, unless the Kansas Corporation Commission has, by order issued within 30 days of the filing, suspended the Surcharge for purposes of investigation.
- 8. At any time after the commencement of the Surcharge, the Surcharge may be reviewed and, if necessary, adjusted to reflect:
 - a. the number of electric service customers then in the governmental subdivision, and/or;
 - b. the amount of energy used by customers in the governmental subdivision, and/or;
 - c. the actual cost of required facilities.
- 9. If the governmental subdivision rescinds its requirements concerning required facilities, the Surcharge shall continue until the end of term specified in Section 5, subject to review and adjustment as specified in Section 8.
- 10. Failure by any customer to pay the Surcharge shall be grounds for disconnection of service to such customer in accordance with Company's General Terms and Conditions for Electric Service.

Issued _____

Effective with bills rendered on and after June 4, 2002

By Kelly B. Harrison
Kelly Harrison, Vice President

02-MSRE-301-RTS *Djm*
Approved
Kansas Corporation Commission
May 15, 2002
/s/ Jeffrey S. Masbauer

WESTERN RESOURCES, INC., dba KPL
(Name of Issuing Utility)

SCHEDULE ROFT

ENTIRE SERVICE AREA
(Territory to which schedule is applicable)

Replacing Schedule INITIAL Sheet 1

which was filed _____

No supplement or separate understanding shall modify the tariff as shown hereon.

Sheet 1 of 3 Sheets

RELOCATION OF FACILITIES TARIFF

If any governmental subdivision requires Company to construct, remove, or relocate ("change") Distribution or Transmission facilities ("required facilities") when Company, absent such requirement, would do otherwise, and where the recovery of the additional cost for such change is not otherwise provided for, the cost incurred by Company to make such change shall be assessed against the customers located within the governmental subdivision through a monthly surcharge ("Surcharge") as follows:

1. If the required facilities are in lieu of new facilities, Company shall estimate the cost of the required facilities and of the facilities which otherwise would have been installed ("planned facilities"). Any cost of the required facilities in excess of the planned facilities shall be the basis for the Surcharge.
2. If the required facilities replace existing facilities which Company would otherwise maintain or modify in place, Company shall estimate the cost of the required facilities and any planned modifications to existing facilities. Any cost of the required facilities in excess of the cost of any planned modifications to existing facilities plus the cost of removing existing facilities shall be the basis for the Surcharge.
3. If the required facilities replace existing facilities which Company would not otherwise maintain or modify, the cost of the required facilities plus the cost of removing the existing facilities less their salvage value shall be the basis for the Surcharge.
4. Company's costs of planned and required facilities shall be as follows:
 - a. Costs of planned facilities shall include applicable material and labor costs, including allocation of indirect costs. Indirect costs are comprised of supervision, engineering, transportation, material handling, and administrative cost functions that support actual construction. The amount of the allocation of indirect costs is derived by application of unit costs or allocation percentages, determined from historical experience.

93WSRE323TAR

Commission File Number

Issued APR 13 1998
 Month Day Year
 Effective APR 4 1998
 Month Day Year

By James Haines
 James Haines, Executive Vice President

NOTED & FILED APR 14 1998

THE STATE CORPORATION COMMISSION OF KANSAS

By [Signature] 6-13
 Secretary

WESTERN RESOURCES, INC., dba KPL
(Name of Issuing Utility)
ENTIRE SERVICE AREA
(Territory to which schedule is applicable)

SCHEDULE ROFT

Replacing Schedule INITIAL Sheet 2

which was filed _____

No supplement or separate understanding shall modify the tariff as shown hereon.

Sheet 2 of 3 Sheets

RELOCATION OF FACILITIES TARIFF

- b. Costs of required facilities shall include the cost items identified in subparagraph a. plus all costs of complying with the requirements of the governmental subdivision including any application process of the governmental subdivision, including the cost of preparing the application, costs of developing alternatives not already studied by Company, cost of estimating the cost of alternatives not already studied by Company, the production of data for consideration in any hearing, and any other direct cost of compliance including any hearing held.

- 5. The basis for the Surcharge, as determined under paragraphs 1, 2, or 3, and 4 above, shall be recovered from all customers within the governmental subdivision through the Surcharge. Said Surcharge shall be the amount necessary to recover the basis and Company's associated cost of capital and income taxes in a period of time approved by the Kansas Corporation Commission, not longer than seven years. Subject to review and approval by the Kansas Corporation Commission, the governmental subdivision may determine whether the Surcharge shall be calculated and billed on a per customer basis, energy usage basis or some combination thereof. Surcharge shall be shown as a separate line item on the customer's bill. In the absence of such governmental subdivision determination, the Surcharge shall be calculated and billed on a per customer basis.

- 6. Company shall file a notice of the Surcharge with the Kansas Corporation Commission and shall file a copy with the affected governmental subdivision and provide copies to customers who have requested that the notice be sent to them. The notice shall state the following:
 - a. the reason for the Surcharge;
 - b. the estimated amount of the Surcharge;
 - c. the period of time over which the Surcharge shall be made;
 - d. the number of electric customers within the governmental subdivision.

93WSRE323TAR

Commission File Number _____

Issued APR 13 1993
 Month Day Year
 Effective APR 14 1993
 Month Day Year

By James Haines
 James Haines, Executive Vice President

NOTED & FILED APR 14 1993
 THE STATE CORPORATION COMMISSION
 OF KANSAS
 By [Signature] 6-14
 Secretary

[Handwritten mark]

WESTERN RESOURCES, INC., dba KPL
(Name of Issuing Utility)
ENTIRE SERVICE AREA
(Territory to which schedule is applicable)

SCHEDULE ROFT

Replacing Schedule INITIAL Sheet 3

which was filed _____

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Sheet 3 of 3 Sheets

RELOCATION OF FACILITIES TARIFF

- 7. The Surcharge may be included in bills rendered in any governmental subdivision 30 days after placing the first required facility in service or the removal of a facility required to be removed or 60 days after filing notice of the terms of the Surcharge with the Kansas Corporation Commission, whichever occurs later, unless the Kansas Corporation Commission has, by order issued within 30 days of the filing, suspended the Surcharge for purposes of investigation.
- 8. At any time after the commencement of the Surcharge, the Surcharge may be reviewed and, if necessary, adjusted to reflect:
 - a. the number of electric service customers then in the governmental subdivision, and/or;
 - b. the amount of energy used by customers in the governmental subdivision, and/or;
 - c. the actual cost of required facilities.
- 9. If the governmental subdivision rescinds its requirements concerning required facilities, the Surcharge shall continue until the end of term specified in Section 5, subject to review and adjustment as specified in Section 8.
- 10. Failure by any customer to pay the Surcharge shall be grounds for disconnection of service to such customer in accordance with Company's General Terms and Conditions for Electric Service.

93WSRE323TAR

Commission File Number _____

Issued APR 13 1997
Month Day Year

Effective APR 14 1998
Month Day Year

By James Haines
 James Haines, Executive Vice President

NOTED & FILED APR 14 1998
 THE STATE CORPORATION COMMISSION
 OF KANSAS

By [Signature] **6-15**
 Secretary

THE STATE CORPORATION COMMISSION OF KANSAS

KANSAS CITY POWER & LIGHT COMPANY

SCHEDULE 5

(Name of Issuing Utility)

Replacing Schedule 5 Sheet 1

Rate Areas 2 & 4

which was filed July 15, 1991

(Territory to which schedule is applicable)

No supplement or separate understanding shall modify the tariff as shown hereon.

Sheet 1 of 3 Sheets

MUNICIPAL UNDERGROUND SERVICE RIDER
Rider UG

If any municipality or other governmental subdivision (hereinafter referred to as the "municipality"), by law, ordinance, regulation or otherwise requires the Company to construct lines and appurtenances or other facilities designed for any Distribution or Transmission voltages (hereinafter referred to as the "facilities") underground when the Company, absent from such ordinance or regulation, would construct or continue to maintain the facilities overhead, and where the recovery of the additional cost for such underground construction is not otherwise provided for in the Company's General Rules and Regulations Applying to Electric Service, the cost of the additional investment required by the Company to construct the facilities underground shall be assessed against the customers, in the form of a monthly surcharge (hereinafter referred to as the "Surcharge") in accordance with the following:

1. If the underground facilities are in lieu of new overhead facilities, the Company shall estimate the installed cost of the underground facilities and shall estimate the installed cost of equivalent overhead facilities. Any cost of installing underground facilities in excess of the cost of installing equivalent overhead facilities plus the cost of estimating the installed cost of both facilities shall be the additional investment upon which the Surcharge is based.
2. If the underground facilities replace existing overhead facilities which the Company has current plans to rebuild overhead, the Company shall estimate the installed cost of the underground facilities and shall estimate the installed cost of equivalent overhead facilities. Any cost of installing underground facilities in excess of the cost of rebuilding the facilities plus any applicable cost of removing existing overhead facilities less any applicable salvage value of existing overhead facilities removed plus all costs of estimating the conversion shall be the additional investment upon which the Surcharge is based.
3. If the underground facilities replace existing overhead facilities which the Company has no current plans to rebuild overhead, the estimated installation cost of underground facilities plus the actual cost of removing existing overhead facilities less the estimated salvage value of existing overhead facilities removed plus all costs of estimating the conversion shall be the additional investment upon which the Surcharge is based.

KCPL Form 661H001 (Rev 4/88)

91 KCP E3 96 T A R

Commission File Number

Issued MAR 5 1992
 Month Day Year
 Effective MAR 9 1992
 Month Day Year
 By *B. J. Beaudoin* Vice President
 Signature of Officer Title

NOTED & FILED FEB 27 1992
 THE STATE CORPORATION COMMISSION
 OF KANSAS
 By *Quinn M. Carroll* 6-16
 Secretary

THE STATE CORPORATION COMMISSION OF KANSAS

KANSAS CITY POWER & LIGHT COMPANY

SCHEDULE 5

(Name of Issuing Utility)

Replacing Schedule 5 Sheet 2

Rate Areas 2 & 4

which was filed July 15, 1991

(Territory to which schedule is applicable)

No supplement or separate understanding shall modify the tariff as shown hereon.

Sheet 2 of 3 Sheets

MUNICIPAL UNDERGROUND SERVICE RIDER
Rider UG

- 4. The length of the term of the Surcharge will be 7 years from the date of installation of the last underground facilities subject to this Rider or such other term as agreed to by Company and municipality.
- 5. The Surcharge shall be approved by the Kansas Corporation Commission on a case-by-case basis to support Company's additional investment in underground facilities. Unless otherwise ordered, the Surcharge shall be calculated by first multiplying the sum of the costs determined in accordance with sections 1, 2, or 3 of this Rider by the Monthly Fixed Charge Rate (hereinafter referred to as "MFCR") of 2.013% or such applicable MFCR for any term other than seven years pursuant to paragraph 10, and then dividing by the number of electric service customers in the municipality. The Surcharge shall be added as a separate line item to the customer's monthly bill.
- 6. If approved by the Kansas Corporation Commission the Surcharge may begin to appear in any municipality on bills rendered 30 days after placing the first facilities subject to that municipality's ordinance or regulation in service. The amount of the Surcharge shall thereafter be reviewed and adjusted at least once annually or more often at the discretion of Company, to reflect:
 - a. the number of electric service customers then in the municipality
 - b. the cost of additional facilities installed underground
- 7. All costs of the Company referenced in this Rider shall include applicable material and loaded labor costs, including allocation of indirect costs. Indirect costs are comprised of supervision, engineering, transportation, material handling, and administrative cost functions that support actual construction. The amount of the allocation of indirect costs is derived by application of unit costs or allocation percentages, determined from historical experience. A copy of the Company's estimate of the cost of construction including direct and indirect costs shall be furnished to the customer upon request prior to construction.

KCPL Form 661H001 (Rev 4/88)

91 KCPE396 TAR

Commission File Number _____

Issued _____ MAR 6 1992
 Month Day Year

Effective _____ MAR 9 1992
 Month Day Year

By B. J. Beaudoin Vice President
 Signature of Officer Title

NOTED & FILED FEB 27 1992

THE STATE CORPORATION COMMISSION
 OF KANSAS

By Quinn McConell 6-17
 Secretary

THE STATE CORPORATION COMMISSION OF KANSAS

KANSAS CITY POWER & LIGHT COMPANY

SCHEDULE 5

(Name of Issuing Utility)

Replacing Schedule 5 Sheet 3

Rate Areas 2 & 4

(Territory to which schedule is applicable)

which was filed July 15, 1991

No supplement or separate understanding shall modify the tariff as shown hereon.

Sheet 3 of 3 Sheets

MUNICIPAL UNDERGROUND SERVICE RIDER
Rider UG

- 8. If the municipality repeals or rescinds its requirements concerning underground facilities subject to this Rider, the Surcharge shall continue until the end of term as specified in Section 4, subject to review and adjustment as specified in Section 6.
9. Failure by any customer to pay the Surcharge shall be grounds for disconnection of service to such customer in accordance with the Company's General Rules and Regulations Applying to Electric Service.
10. The Company will request approval of the Kansas Corporation Commission for application of the surcharge for each law, ordinance or regulation which requires the Company to construct facilities underground pursuant to this rider.

Such request for approval will be filed one year prior to construction in all cases where possible. In cases where, due to the need to meet customer requirements either in terms of capacity or reliability, there is insufficient time to request approval of the surcharge one year prior to construction, such requests for approval will be made as far in advance of construction as practicable. Each request for approval of the surcharge will state the following:

- a. the reason for the surcharge;
b. The estimated amount of the surcharge;
c. the period of years over which the surcharge will be made;
d. the factors upon which a conclusion may be drawn concerning the propriety of the surcharge.
e. The number of electric customers within the municipality.

KCPL Form 661H001 (Rev 4/88)

91KCPE396TAR

Commission File Number

Issued MAR 6 1992
Effective MAR 9 1992
By B.J. Beaudoin Vice President

NOTED & FILED FEB 27 1992
THE STATE CORPORATION COMMISSION OF KANSAS
By [Signature] Secretary 6-18

WESTPLAINS ENERGY, a division of UtiliCorp United Inc.
(Name of Issuing Utility)

Schedule: 01-ECA-I

Replacing Schedule 01-ECA-I Sheet 1
Which was filed July 24, 2001

ENTIRE SERVICE AREA
(Territory to which schedule is applicable)

No supplement or separate understanding shall modify the tariff as shown hereon. Sheet 1 of 4 Sheets

ENERGY COST ADJUSTMENT CLAUSE

Rate Schedule Covered: This Energy Adjustment Clause applies to all rate schedules superseding those rate schedules containing an Energy Cost Adjustment as approved in KCC File Number 133,106-U dated December, 1982.

Computation Formula: The rates for energy to which this adjustment is applicable shall be increased or decreased by .001 cents per kilowatt-hour (kWh) for each .001 cents (or major fraction thereof) increase or decrease in the aggregate cost of energy per kWh computed by the following formula:

$$\frac{(F + P + NI + C - D)}{(.01) S} - b = \text{Adjustment}$$

Where:

F = Estimated dollar cost of nuclear fuel used¹ and fossil fuel burned² during the current month³ to supply electric energy to customers⁸.

P = Estimated total cost of purchased power⁴ during the current month³ to supply electric energy to customers.

NI = Estimated net dollar cost⁷ (positive or negative) of interchange received less interchange sales during the current month³.

S = Estimated kWh delivered to customers during the current month which equals: (sum of the estimated kWh generated, purchased, and net interchanged during the month) times (1 minus the line loss percentage⁶).

C = Correction to dollar cost which is calculated as:

$$\text{Actual } (F + P + NI + C^1) - \text{Estimated } (F + P + NI + C^1) \times \frac{\text{Actual } S}{\text{Estimated } S \text{ (for second prior month)}}$$

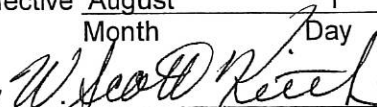
C¹ = Correction dollars used originally in Energy Cost Adjustment Clause calculation for the second prior month.

D⁹ = During December (actual) of each year actual Off-system sales gross profit ("GP") shall be included in the monthly ECA calculation. The calculation shall be made as follows:
(Year-to-date GP-\$563,862) x 25 percent (%).


b = The Energy cost of 1.635/kWh established during the base period⁵. This actual energy cost has been calculated by applying the formula $\frac{F + P + NI}{(.01) S}$, where the components are defined as above. The base period⁵ data is the twelve months ended December 31, 1981, as set forth in Docket No. 133,106-U.

01-WPEE-532-TAR
Approved
Kansas Corporation Commission
July 9, 2002
/s/ Jeffrey S. Waganan

Commission File Number _____

Issued	June	12	2002
	Month	Day	Year
Effective	August	1	2002
	Month	Day	Year
By			Manager, Regulatory
	Signature		Title

-----FILED-----
THE STATE CORPORATION COMMISSION
OF KANSAS

By _____ Secretary 

WESTPLAINS ENERGY, a division of UtiliCorp United Inc.
(Name of Issuing Utility)

Schedule: 01-ECA-

ENTIRE SERVICE AREA
(Territory to which schedule is applicable)

Replacing Schedule 01-ECA-I Sheet 1
Which was filed July 24, 2001

No supplement or separate understanding shall modify the tariff as shown hereon.

Sheet 2 of 4 Sheets

NOTES TO THE FORMULA

1. Costs includable under nuclear fuel are those properly recorded as nuclear in FERC Account Number 518.
2. Costs includable under fossil fuel burned shall include only those costs properly recorded as fossil fuel costs prior to or in the burning cycle in FERC Account Number 151, except that fuel costs should be reduced by the amount of supplier refunds normally credited to FERC Account Number 501. For natural gas or other fuels for which no inventory is maintained, the cost recorded in FERC Account Number 501 are includable as fossil fuel burned. Costs of each type of fuel burned shall be computed by the following formula:

$$\frac{(B + A) \times E}{(C + D)}$$

Where:

- B = Dollar cost of fuel stocks at the beginning of the current period.
- A = Estimated dollar cost of additions to fuel stocks during the current period.
- C = Actual units of fuel (tons, barrels, or MCF) in stock at the beginning of the current period.
- D = Estimated units of fuel to be added to stocks during the current period.
- E = Estimated units of fuel to be burned during the current period.

3. The current month is defined as the month during which the energy to be billed under the adjustment will be delivered.
4. Costs includable under purchased power are those properly recorded as purchased energy costs in FERC Account Number 555, and are exclusive of capacity, demand or other fixed charges.
5. The base period is defined as the period from which data were taken in establishing the base rates to which the energy adjustment will be applied.

01-WPEE-532-TAR
Approved
Kansas Corporation Commissioner
July 9, 2002
/s/ Jeffrey S. Wasaman

Commission File Number _____

Issued	June	12	2002
	Month	Day	Year
Effective	August	1	2002
	Month	Day	Year
By	<i>W. Scott Keith</i>		Manager, Regulatory
	Signature		Title

----- FILED -----
THE STATE CORPORATION COMMISSION
OF KANSAS
By _____ Secretary
A.C.

6-20

WESTPLAINS ENERGY, a division of UtiliCorp United Inc.
(Name of Issuing Utility)

Schedule: 01-ECA

Replacing Schedule 01-ECA-I Sheet 1
Which was filed July 24, 200

ENTIRE SERVICE AREA
(Territory to which schedule is applicable)

No supplement or separate understanding shall modify the tariff as shown hereon.

Sheet 3 of 4 Sheets

- 6. Line Loss or unaccounted for losses percentage is the amount of total kWh losses divided by the net kWh generated, purchased, and interchanged during the most recent twelve-month period. If this calculated value is greater than the limit value (as defined in later paragraphs), use of the limit value shall be required in the calculation.
- 7. Net dollar costs or interchange are energy costs, and are exclusive of capacity, demand, or other fixed charges.
- 8. In the computational formula, the cost of fuel used to produce steam for industrial customers will be excluded.
- 9. In the event that actual gross off-system sales gross profit does not exceed \$563,862 then factor D shall be equal to zero.

Computation Frequency: This computation must be made monthly.

Settlement Provision: The adjustment computed above will be increased or decreased by the amount (to the nearest .001 cents/kWh) by which the total amount billed to customers under the energy adjustment in the second prior month was greater or less than the actual increased or decreased cost of energy experienced during that month. The actual increased cost of energy will be calculated using the formula:

$$\text{Actual}(F + P + NI + C^1) - \text{Estimated}(F + P + NI + C^1) \times \frac{\text{Actual } S}{\text{Estimated } S}$$

for second prior month where components are defined as above, except that actual rather than estimated data will be used to compute the current period portion of the formula; and the fuel cost factor of (F) will be reduced by any supplier refunds or BTU credit adjustments received.

Reporting Requirements: WestPlains Energy shall submit to the Kansas Corporation Commission on or before the fifteenth day of each month an energy adjustment report, in a format prescribed by the Kansas Corporation Commission, showing the calculations for the next month's energy adjustment rate.

In the event that the operating statistics of WestPlains Energy shall fall outside the limits as outlined below, WestPlains Energy will inform the Kansas Corporation Commission of the circumstances surrounding the deviation in operating statistics, and the Kansas Corporation Commission may, at its discretion, require WestPlains Energy to make the calculation at the limit values. These limits are:

01-WPEE-532-TAR
Approved
Kansas Corporation Commission
July 9, 2002
/s/ Jeffrey S. Masaman

Commission File Number _____

Issued	<u>June</u>	<u>12</u>	<u>2002</u>
	Month	Day	Year
Effective	<u>August</u>	<u>1</u>	<u>2002</u>
	Month	Day	Year
By	<u>W. Scott Keith</u>		<u>Manager, Regulatory</u>
	Signature		Title

-----FILED-----
THE STATE CORPORATION COMMISSION
OF KANSAS
By _____ Secretary
K.L.

6-21

WESTPLAINS ENERGY, a division of UtiliCorp United Inc.
 (Name of Issuing Utility)

Schedule: 01-ECA-

Replacing Schedule 01-ECA-I Sheet 4
 Which was filed July 24, 2001

ENTIRE SERVICE AREA

(Territory to which schedule is applicable)

No supplement or separate understanding shall modify the tariff as shown hereon.

Sheet 4 of 4 Sheets

Statistics	Summer Period May - September		Winter Period October - April	
	Limits	Alternative* Fuel Ratios	Limits	Alternative* Fuel Ratios
Thermal Efficiency(Heat rate)	Max. Of 12,100 BTU/kWh		Max. Of 12,200 BTU/kWh	
Percentage of BTU from:				
Coal	16% to 100%	30%	16% to 100%	25%
Oil	0% to 25%	15%	0% to 75%	42%
Gas	0% to 84%	55%	0% to 84%	33%
Nuclear	-% to -%	-%	-% to -%	-%
Line Loss	Maximum of 14%		Maximum of 14%	

*These alternative fuel ratios must be used in calculating the fuel cost, if actual performance falls outside the limit values.

Assessment for Estimating Accuracy: In the event that the estimated total energy costs per kWh for any three consecutive months exceed by more than 5% the actual cost per kWh for those same months, WestPlains Energy shall submit an explanation. If WestPlains Energy cannot show that the estimate was realistic and the actual costs was the lowest overall cost that could have been incurred, the Kansas Corporation Commission may, at its discretion, assess WestPlains Energy, for the purpose of recovering administrative costs of handling the adjustment, in an amount not to exceed the difference between the amount billed to customers under the estimated rate and the actual increase in energy costs for those billing periods.

01-WPEE-532-TAR
 APPROVED
 Kansas Corporation Commission
 July 9, 2002
 /S/ Jeffrey S. Wasaman

Commission File Number _____

Issued June 12 2002
 Month Day Year

Effective August 1 2002
 Month Day Year

By W. Scott Kitch Manager, Regulatory
 Signature Title

----- FILED -----
 THE STATE CORPORATION COMMISSION
 OF KANSAS

By _____ Secretary
 K.C.

6-22

THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

Before Commissioners: John Wine, Chair
Cynthia L. Claus
Brian J. Moline

In the Matter of a Generic Investigation to Establish)
Criteria and Procedures for Recovery of Security) Docket No. 03-GIMX-431-GIV
Expenditures for which Utilities may seek Recovery)
under Sub SB 545 Section 4.)

ORDER

The above matter comes before the State Corporation Commission of the State of Kansas for consideration. Being fully advised of all matters of record, the Commission finds:

1. The Commission's January 6, 2003 Order provided for responses to Staff's Reply Comments to be filed by January 17, 2003. Responsive comments were filed by Kansas City Power & Light Company (KCPL), Westar Energy (Westar), The Empire District Electric Company (Empire), Aquila, Inc., and the Citizens' Utility Ratepayer Board (CURB). CURB also requests that it be permitted to intervene in this matter. The Commission grants CURB intervention pursuant to K.A.R. 82-1-225(a).

2. The Commission has reviewed the recent comments along with Staff's reports and the comments filed in December, 2002 by Westar, KCPL, Empire, Atmos Energy, Aquila, KEPCo and SEP Corporation. The comments have been helpful in considering what procedures and filing criteria are appropriate for review of requests to recover security expenditures.

3. The substitute for Senate Bill No. 545 is currently found at Chapter 148 of the 2002 Session Laws on Kansas. The applicable provision, Section 4(b), states as follows:

On and after July 1, 2002, the state corporation commission, upon application and request, shall authorize electric public utilities and natural gas public utilities to recover the utility's prudent expenditures for security measures reasonably required to protect the utility's electric generation and transmission assets or natural gas production and
HOUSE UTILITIES

DATE: 2-3-03

ATTACHMENT 7

transportation assets by an adjustment to the utility's customers' bills. The application and request shall be subject to such procedures and conditions, including review, in an expedited manner, of the prudence of the expenditures and the reasonableness of the measures, as the commission deems appropriate. Such application and request shall be confidential and subject to protective order of the commission.

4. Several parties have raised the issue of confidentiality. The law clearly states that applications and requests are to be confidential. While the requirement for confidentiality may not be necessary for all security projects, this is a matter for the legislature. The Commission will maintain the confidentiality of these dockets. However, the Commission has an obligation to provide information about security expenditure filings to the public and to ratepayers who will pay any prudently incurred costs. At the time that a filing pursuant to Chapter 148, Section 4, of the 2002 Session Laws is made, the Commission will release the name of the utility, the amount of recovery requested for security-related expenditures, and the method of cost recovery requested by the utility. When a final ruling is made, the total dollar amount of expenditures allowed will be made public, with details of how the amount will be recovered.

5. In order to immediately identify all filings under this law as ones requiring confidential treatment, the Commission directs that the caption of applications be substantially in this form: "In the Matter of the Application of [utility name] for Recovery of Security Expenditures Pursuant to Chapter 148, Section 4, of the 2002 Session Laws of Kansas." The Commission directs that at the time an application is filed, a copy also be provided to CURB.

6. The law provides for review by the Commission in an expedited manner. From the filings, it appears that there is a general consensus on a 60-day review period, provided that the initial application includes sufficient supporting data and information that minimal discovery is necessary. The Commission agrees that 60 days is a reasonable target if the initial filing contains documentation and information necessary to establish the prudence and reasonableness of the expenditures. The Commission will summarily dismiss applications that are not fully

supported, and will plan to rule on properly supported applications within 60 days. The 60-day period may be extended if necessary to accommodate site visits or discovery by Staff, or time constraints in the Commission's schedule.

7. With respect to the standard for review, the Commission can take direction from the legislation. The utility has the burden of showing that the expenditures are prudent, are for security measures, and are reasonably required to protect utility assets. The parties have also agreed that only recovery of incremental costs should be allowed. Applications must address these areas and provide whatever information is necessary to meet these standards.

8. Staff and CURB have stated concerns that expenditures for additional personnel may not be warranted if the utility has reduced staffing levels since its last rate case and is already recovering adequate costs for personnel. The Commission finds that if an application includes expenditures for personnel, the utility should provide information as to the level of employees covered in the last rate order, the current level of employees, and the specific basis for requesting recovery of the costs of the new personnel pursuant to this legislation.

9. Aquila, Atmos and Empire argue that the law provides for recovery of all security expenditures, including capital investments, on an expedited basis. Westar also states that recovery of most capital costs should be over one year. These utilities propose that capital expenditures be recovered in the same manner as expense items by being treated as contributions in aid of construction (CIAC). Staff and CURB oppose this and Staff emphasizes that this would be a departure from the standard regulatory method of cost recovery for capital expenditures.

10. There is no requirement that recovery of capital costs be expedited or completed in one year. Parties reaching this conclusion have misread the statute. What is required is an expedited review and the ability to recover the expenditures approved by the Commission through an adjustment to customer bills. The procedures ordered will provide for this.

11. The usual manner for recovering capital investments is as described by Staff, through depreciation and the approved rate of return. Capital expenditures will benefit ratepayers over time. The standard method of recovery provides for capital costs to be paid over time by the various generations who benefit from the capital projects. To allow treatment as proposed by the utilities would unfairly burden current ratepayers and would be contrary to accepted regulatory principles. The Commission accepts Staff's position on capital investments as valid and reasonable.

12. When an application is filed, the utility must specify the manner in which it seeks to recover the incremental security-related costs. The Commission will review the proposal for reasonableness and efficiency. Amounts approved for recovery through a surcharge will be identified as line items on customer bills.

IT IS, THEREFORE, BY THE COMMISSION ORDERED THAT:

CURB's petition to intervene is granted. The procedures and requirements stated above are ordered for all utility filings pursuant to Chapter 148, Section 4, of the 2002 Session Laws of Kansas. A party may file a petition for reconsideration of this Order within 15 days of the date of this Order. If service is by mail, 3 additional days may be added to the 15-day time limit to petition for reconsideration. The Commission retains jurisdiction over the subject matter and parties for the purpose of entering such further orders as it may deem necessary.

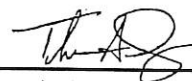
BY THE COMMISSION IT IS SO ORDERED.

Wine, Chr.; Claus, Com.; Moline, Com.

Dated: JAN 31 2003

ORDER MAILED

JAN 31 2003



Executive Director

Thomas A. Day
Acting Executive Director

7-4



League of Kansas Municipalities

300 SW 8th Avenue
Topeka, Kansas 66603-3912
Phone: (785) 354-9565
Fax: (785) 354-4186

To: House Utilities Committee
From: Kim Gulley, Director of Policy Development & Communications
Date: February 3, 2003
Re: HB 2037

Thank you for the opportunity to appear before you today on behalf of the 556 member cities of the League of Kansas Municipalities (LKM). Our organization was actively involved in the original enactment of K.S.A. 66-1231 *et seq.* during the 2002 Legislative Session. As many of you will remember, LKM and a number of our member cities participated over a number of months in negotiations with the telecommunications industry concerning issues of franchising and right of way management. A delicate balance was struck between the parties and the resulting legislation was approved last year with only technical amendments.

As the telecommunications compromise was being considered in the legislature, representatives of the electric and gas industry expressed concern that cities may apply different rules to different users of the rights of way as they implemented the new legislation. Out of respect for these concerns, LKM sat down with representatives of the electric and gas industry and worked out a compromise which would allow for an expedited process by which claims of excessive right of way management costs could be brought before the KCC and eventually passed through to the consumers in a particular community.

This compromise was intended to be a temporary solution to the potential threats that the electric and gas industry had identified. It was never intended to permanently change the rate setting processes of the KCC. For that reason, a sunset of July 1, 2004 was included in the legislation and we would oppose the removal of that sunset.

On a related note, LKM has been working with our cities to bring them up to speed on the right of way legislation which was adopted last year. Many cities are still in the assessment phase, trying to determine what level of regulation, if any, is appropriate for their community. LKM is developing a model right of way management ordinance which will apply to all users of the rights of way. It is our hope that this model ordinance will bring clarity and a level of uniformity to a very complex issue.

For the reasons enumerated above, we respectfully request that you do not report HN 2037 favorably for passage. Again, thank you for the opportunity to appear before you today and I would stand for questions at the appropriate time.

HOUSE UTILITIES

DATE: 2-3-03

ATTACHMENT 8

Testimony on HCR 5007
House Utilities Committee – February 3, 2003

Delivered on behalf of:
Kansas Electric Power Cooperative, Inc. (KEPCo)
Sunflower Electric Power Corporation
Kansas Electric Cooperatives, Inc.
Westar Energy, Inc.
Aquila, Inc.
Great Plains Energy
Kansas Municipal Utilities

Without a doubt, there is a need to expand and improve the transmission system here in Kansas and in many areas of the United States in order to improve electric system reliability and efficiently deliver power to markets. Because of the interstate nature of electricity transmission, the Federal Energy Regulatory Commission (FERC) should, as the resolution suggests, assume a leadership role in the development of sufficient transmission infrastructure and implementation of regional transmission organizations. However, the resolution urges FERC to "provide expeditiously for the establishment of standard market design." Standard market design, as a concept, will probably be necessary in order to effectively move to open access transmission service. However, FERC's first attempt at a Standard Market Design (SMD) is burdensome, controversial and many believe could actually discourage investment in transmission facilities, decrease reliability and increase costs. There is also significant concern across the country from states wanting to retain some voice in the proceedings. That's why FERC has slowed its efforts to implement some aspects of the SMD.

With that in mind, please consider the following amendment that we believe will not diminish the merit of HCR 5007 and will avoid any interpretation or appearance that the state is encouraging regulations that may ultimately be detrimental to Kansas utility consumers.

Starting with Line 40

Be it resolved by the House of Representatives of the State of Kansas, the Senate concurring therein: That the Legislature urges the Federal Energy Regulatory Commission to work with the State of Kansas in development of sufficient transmission infrastructure to support the state's and the nation's growing energy needs along with the design and implementation of regional transmission organizations; and

Thank you for the opportunity to present these joint comments on HCR 5007.

HOUSE UTILITIES

DATE: 2-3-03

ATTACHMENT 9

Comments Submitted to the
Kansas House Utilities Committee

by

Kyle K. Wetzel

on behalf of the

Kansas Renewable Energy Working Group

in Support of

HCR 5007

Urging FERC to take action to ensure expansion and improvement of the
Electric Transmission System

February 3, 2003

The Kansas Renewable Energy Working Group would like to express its strong support for HCR 5007 urging the Federal Energy Regulatory Commission to take action to ensure expansion and improvement of the Electric Transmission System. Such expansion is critical to the future development of wind power in Kansas.

Public Interest Research Group released a report last February which ranked Kansas as first among the lower 48 states in terms of harnessable wind energy resource. Most of Kansas' wind energy development exists in two regions: the Flint Hills in eastern Kansas, and a large swathe of western Kansas stretching from the northwest corner of the state across to south central Kansas.

The most serious challenge facing development of wind power in western Kansas is transmission constraint. If one takes a map of Kansas wind energy resource and overlays on it the 230 kV and 345 kV transmission lines in Kansas, the challenge of transmitting Kansas wind power out of southwest Kansas immediately becomes obvious. The 345 kV lines run north, south, east, and soon west from the power plant at Holcomb – south to Amarillo, west to Spearville, north to Nebraska, and eventually west to Lamar, Colorado. The problem is that there is not much load in Nebraska to absorb western Kansas wind power. The line from Holcomb to Lamar must go through an AC-DC-AC link which is presently planned to have a capacity limit of approximately 200 MW. GE already plans to build a 160 MW wind farm at Lamar. And the line to Amarillo is going to be very popular with wind farms in the panhandles of Oklahoma and Texas.

As for the line going eastward, the problem is that the termination of the 345 kV line at Spearville is connected back to Great Bend, Hutchinson, and Salina only through a 230 kV line. Moreover, for all practical purposes Wichita is electrically disconnected from western Kansas.

Making reasonable assumptions about other demands already placed on the existing lines, no more than approximately 400 MW of wind power can be exported from western Kansas, including the 100 MW already installed at Montezuma. This number is probably optimistic. This assumes limited development of wind power in the panhandles of Oklahoma and Texas. If several hundred megawatts of wind turbines are installed there, the ability to get wind power out of southwest Kansas could be minimal.

HOUSE UTILITIES

DATE: 2-3-03

ATTACHMENT 10

Easily during the next decade we could install 1,000 MW of wind power in southwest Kansas if we could get the power out. Furthermore, Amarillo does not have need for 1,000 MW of wind power, so the excess must be transmitted back east.

The Kansas Renewable Energy Working Group's strong recommendation is that the existing 115/138 kV line running from Dodge City to Barber and Harper Counties and back to Wichita should be upgraded to 345 kV or preferably 500 kV. This would allow for an additional 1,250 MW of wind power to be exported from southwest Kansas.

More importantly than just the benefits to wind, however, such a line would end the electrical isolation of western Kansas from eastern Kansas. If one takes that same map of transmission lines mentioned above and looks only at the 345 kV lines, nothing connects eastern and western Kansas. This creates problems in general for moving power in and out of western Kansas, which affects all generation, including the planned 600 MW coal-fired facility at Holcomb.

Furthermore, construction of additional ultrahigh voltage power lines connecting Kansas to Colorado, Oklahoma, Texas, and Missouri would enable increased export of Kansas-generated windpower to the load centers in surrounding states, such as Denver, St. Louis, and even Chicago. This would apply to wind energy generated in both the western and eastern parts of the state.

FERC, through its Standard Market Design, and working with the Regional Transmission Operators such as the Midwest Independent System Operator, will have enormous influence over transmission expansion in the U.S. in the future. It is important that they understand and appreciate the needs of states like Kansas and particularly the needs of our rural areas. HCR 5007 does this.