BEFORE THE STATE CORPORATION COMMISSION

OF THE STATE OF KANSAS

DIRECT TESTIMONY

OF

JAMES LUDWIG

WESTAR ENERGY

DOCKET NO. 11-WSEE-377-PRE

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. James Ludwig, 100 N. Broadway St., Suite 800, Wichita, Kansas.

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

A. Westar Energy, Inc. I am Executive Vice President, Public Affairs and Consumer Services.

Q. PLEASE DESCRIBE YOUR ELECTRIC UTILITY EXPERIENCE AND YOUR EDUCATION.

A. I started at Westar in June 1989 as an Information Specialist. Later that year, I was appointed Director, Government Affairs and served in that capacity until mid-1995. From then until I resigned from Westar in October 2001, I was Senior Director, Regulatory Affairs. I returned to Westar at the beginning of 2003 as Vice President, Public Affairs. In

March 2006, I became Vice President, Regulatory and Public Affairs and served in that role until I assumed my current position in July 2007. I graduated summa cum laude from the University of Kansas in 1980 with two Bachelor of Arts degrees, one in classical languages and another in history.

II. SUMMARY OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. We understand that the process of developing energy supply plans needs to take into consideration the effects on demand of our efforts to encourage energy efficiency and conservation. And it appears that the legislature in enacting K.S.A. 66-1239 – the "predetermination" statute – came to the same conclusion. Thus, K.S.A. 66-1239 requires that, as a condition to receiving predetermination of the rate treatment for a proposed generation addition or power purchase agreement, we submit a description of our conservation measures and demand side management (DSM) efforts.

The purpose of my testimony is to describe Westar's recent developments in energy efficiency, conservation and demand management and briefly summarize past efforts that are still in place. I discuss the policy benefits of our proposed wind projects and how Westar's strategy incorporates the requirements of recent Kansas law to increase the amount of renewable-sourced generation on our system into our business plan. Finally, I discuss federal legislation on renewable energy and other environmental concerns.

III. DESCRIPTION OF WESTAR'S ENERGY EFFICIENCY, CONSERVATION AND DSM INITIATIVES

Q. PLEASE GIVE A BRIEF DESCRIPTION OF WESTAR ENERGY'S ENERGY EFFICIENCY DEPARTMENT.

A. Westar formed its Energy Efficiency Department in 2007. I hired Randy Degenhardt to be the director of the department. Mr. Degenhardt has more than 30 years of experience with Westar, with extensive experience in customer service, energy efficiency, conservation and DSM. He has been instrumental in administrating Westar's long-standing demand management and response efforts and in advising customers about tariffs that encourage the wise use of electricity. I discuss those efforts and rates below.

The Energy Efficiency Department has a staff of 13 employees. Our three areas of emphasis within the department are consumer services, demand side management and trade and ally partnerships.

Q. DO YOU HAVE ANY ENERGY EFFICENCY OR DSM PROGRAMS APPROVED BY THE KANSAS CORPORATION COMMISSION FOR COST RECOVERY?

A. Yes.

Q. WHAT ARE THE PROGRAMS?

A. The programs are:

1. WattSaver (Docket No. 09-WSEE-636-TAR) – a programmable thermostat/direct load control program;

2. Building Operator Certification (Docket No. 09-WSEE-738-MIS) – an educational series for facility managers;

3. Energy Efficiency Education (Docket No. 09-WSEE-986-ACT); and

4. Energy Efficiency Demand Response (EE DR) Program (Docket No. 10-WSEE-141-TAR) – a program for large energy users able to reduce their electrical load very quickly, that entices them to do so when conditions on our system warrant it (i.e., "load shedding").

Q. PLEASE DESCRIBE WATTSAVER.

A. Through WattSaver, residential and small commercial customers have the opportunity to participate voluntarily in a programmable thermostat program. The program helps customers save money, increases customer satisfaction, and helps Westar effectively manage summer peak loads. As participation increases, WattSaver has the potential to help delay building additional distribution infrastructure and generating plants.

Program participants receive installation of a programmable thermostat, a 12-point inspection of their heating/cooling system, access to an online energy management system, plus maintenance of the thermostat while enrolled in the program at no charge. The thermostat contains a communication chip that enables customers to access a free online program with which they can remotely change their

thermostat settings from any computer with Internet access. With this type of manageability at their fingertips, customers can fine-tune their energy usage to reduce year-round heating and cooling expenses.

In exchange for Westar providing this service, customers allow us – on occasion – to cycle their air conditioning compressors remotely. This will happen no more than 90 hours per cooling season, typically on the hottest days during the summer when peak load is at its highest, during periods of operational instability (e.g., overloaded circuit), or based on economic reasons (e.g., if, based on fuel and purchased power costs in our Retail Energy Cost Adjustment, it would cost our customers less to implement the program than to buy power off-system, we opt for the least-cost option to our customers). Customers have the option to "opt out" of the program one day per month to accommodate vacations, summer gatherings, or any other reason.

In the event a customer no longer wants to participate in the program, we will, at no charge to the customer, remove the programmable thermostat and reinstall the customer's previous unit (which will be left with the customer).

WattSaver became available to customers in September 2009. More than 12,000 customers have signed up for the program. This year was our first cycling season with the thermostats installed. We cycled thermostats five times for a total of 12 hours to decrease load on our system.

Q. PLEASE DESCRIBE THE BUILDING OPERATOR CERTIFICATION PROGRAM, ITS PROGRESS AND ITS CURRENT STATUS.

A. Westar offers to any building operator employed by one of our commercial or industrial customers the opportunity to participate in the Building Operator Certification Program (BOC). BOC is a licensed program offered through the Midwest Energy Efficiency Alliance (MEEA). MEEA serves as the regional coordinator and facilitator of all components of BOC programs throughout the Midwest. The program is designed to achieve measurable, sustainable energy savings by properly training building operators and to reduce system peak load (through coincidental peak reductions) to help defer the need for additional capacity.

BOC is a nationally recognized competency-based training and certification program for building operators designed to improve the energy efficiency of commercial and industrial buildings. Operators earn certification by successfully completing a series of training sessions, in-class exams, and project assignments (completed within their respective facilities). BOC certification provides a credential for the building operators' professional development and provides employers a way to identify skilled operators.

The BOC offers two levels of certification. Level I emphasizes energy-efficient building maintenance practices. Level II stresses advanced equipment troubleshooting and preventative maintenance

and offers elective courses to accommodate the varying needs of participants. Qualified instructors lead interactive classroom and group discussions. With practical projects, participants are able to apply the tools and methods taught in class to their own facility, constructing functional records for electrical systems, heating, ventilation and air conditioning (HVAC) operations, lighting levels and controls, and annual profiles of energy consumption. Upon completion of their training, participants have in-depth reference manuals, as well as access to BOC's wide network of participants, experts, and resources to leverage for troubleshooting, best practices, and advice.

Participants pay program tuition fees directly to MEEA and, upon successful certification, Westar reimburses a portion of the tuition to the paying party.

Our first BOC course began in November 2009. We have completed two Level I courses and have three more under way with another beginning in October. In 2011, we will begin two more Level I courses and two Level II courses.

Q. PLEASE DESCRIBE THE ENERGY EFFICIENCY EDUCATION PROGRAMS.

A. We designed our energy efficiency education programs to raise awareness about electricity consumption, and to educate our customers regarding how they can adopt tools and take actions to use electricity more efficiently. Education programs also support and help to establish

a foundation for other energy efficiency and demand side management programs.

Westar takes a multi-faceted approach to educating customers about energy efficiency. Program offerings include:

- Energy Efficiency for Education – We designed this program for school-age youths to raise awareness of the efficient use of energy among our youngest consumers and provide age appropriate tips for how they can save energy. Our trained representatives provide presentations and age-appropriate lesson plans for teachers. For example, we provide students from kindergarten to fourth grade a diary with stickers to place on each weekday as they take actions that save energy. Students in grades five to 12 perform an assessment on their homes, looking at items such as window orientation and number of panes, age of heating and cooling equipment, sealing of duct work and thermostat settings. The projects meet state education standards as well. Under this program, teachers and schools may also earn grants for energy efficiency lesson plans and projects they submit. From the inception of the program in August 2009 through June 2010, the program has reached about 4,500 students. Program participation continues at a steady rate as the 2010-2011 school year gets under way.

- Speaker's Bureau – We designed this program to reach community groups and customers regarding the efficient use of energy. It is similar to the Energy Efficiency for Education program in that our employees make presentations and provide information to the group requesting a speaker through Westar. The presentations include discussion points on how energy is produced, plus a variety of easy to implement low-cost and no-cost ways to save energy. Specialized versions of the presentation have been turned into classes for first-time homebuyers and homeowners looking to take on home improvement projects to improve energy efficiency. From August 2009 through June 2010, we reached about 4,500 people through our presentations. The program is popular among customers. We are continuing to identify special audiences to which we can tailor the material and educate them on energy efficiency.
- Real Estate Professional Certification – This program provides training for real estate professionals (typically agents and appraisers) to understand, identify, assess and sell the energy efficiency features of a home. The program has been designed to fulfill four hours of required continuing education for licensed real estate agents. We have given this class 15 times reaching more than 150 professionals.

- Home Shows – This program provides attendees at local home shows with information on the efficient use of energy and promotes environmental awareness. Westar employees discuss energy efficiency concerns of attendees and distribute energy efficiency literature. We have already reached about 20,000 people through participation in these events.
- Save A Watt, Save A Lot – This program raises awareness among office workers about the efficient use of energy and how small things can add up to large savings. We started this program in our own facilities through the distribution of a number of printed flyers to encourage our employees to take steps to save energy at work. We found the principles are equally applicable to our customers. The flyers are designed to remind employees that simple energy efficient actions around the office such as turning off their computers when they go home at night result in energy savings. We continue to offer lunch-time seminars to employees and reinforce the messages from this campaign and to educate them about saving energy at home. We are currently taking a scaled-down version of our trade show booth to all locations in the company to maintain awareness of energy efficiency.
- Multi-media education – We also use mass media and other media, such as the Internet and direct mail to reach larger

audiences with energy efficiency educational messages. Our web calculators allow consumers to estimate the energy saving (or cost) of various improvements or purchases. Our calculators have had more than 100,000 visits. Direct mail was an important part of our year-long project in Colwich, Kansas, where we engaged an entire town in energy efficiency education through public events, a weatherization project and comparative use letters. We worked with the Climate and Energy Project to promote an energy-saving competition among Kansas towns in 2009-2010. We continue to look for opportunities that fall outside the other structured education programs.

All of Westar's programs use brochures and a variety of printed material and appropriate promotional items to convey messages and support education programs.

Q. PLEASE DESCRIBE THE ENERGY EFFICIENCY DEMAND RESPONSE PROGRAM RIDER.

A. Westar's Energy Efficiency Demand (EE DR) Response Program Rider supplements, enhances and expands Westar's long-established demand response programs for commercial customers. Westar has offered those programs through three approved rates schedules or riders. They are: a.) the Generation Substitution Rate Schedule; b.) the Interruptible Contract Service Rate Schedule; and c.) the Interruptible Service Rider.

The EE DR Program Rider enhances Westar's existing demand response programs and provides additional benefits to the system through use of a reduced notification period – as short as 10 minutes – to participants on this program to shed load. It is designed for Westar's largest users of energy that can shed load quickly. This enhancement over Westar's existing demand response programs will assist Westar in responding to emergency system conditions affecting its ability to provide efficient and sufficient service to customers.

One customer is enrolled in this new program, and we are discussing participation with other qualified industrial and commercial customers. The currently enrolled customer has contracted to provide 95 MW of peak reduction. Westar initiated curtailment four times under our demand response programs in 2010. Three curtailments were due to peak conditions, and one was a local transmission loading issue. During the transmission event, the customer in this program was the only one curtailed.

Q. DOES WESTAR HAVE ANY OTHER ENERGY EFFICIENCY PROGRAMS PENDING BEFORE THE COMMISION?

A. Yes. One additional program is pending before the Commission.

Q. PLEASE DESCRIBE THAT PROGRAM.

A. Westar filed its SimpleSavings program for consideration on June 4, 2010 in Docket No. 10-WSEE-775-TAR.

Westar's SimpleSavings Program is a meter-based program in partnership with the Efficiency Kansas revolving loan program. Efficiency Kansas, developed by the State Energy Office, is designed to:

1. Produce cost-effective, firm energy savings,
2. Address efficiency improvements in a comprehensive manner using sound building science principles,
3. Implement the most cost-effective programs in a logical sequence to maximize the energy savings per dollar spent, and
4. Target customers residing in structures most in need of efficiency improvements.

Westar will use commercially reasonable efforts to identify homes needing energy efficiency improvements in compliance with the proposed SimpleSavings Program Rider as filed with the Commission and in compliance with the Program Manual of the Efficiency Kansas revolving loan program.

The Commission proceeding for this program is under way with an order required by no later than January 31, 2011.

Q. DOES WESTAR HAVE ENERGY EFFICIENCY INITIATIVES IN ADDITION TO THOSE APPROVED OR PENDING BEFORE THE COMMISSION?

A. Yes.

Q. WHAT ARE THEY?

A. SmartStar is a smart grid demonstration project in Lawrence, Kansas, that will include energy efficiency among the customer benefits. We also have programs that focus on educating trade allies such as heating and cooling contractors and home builders on the benefits of high-efficiency HVAC equipment and of more energy efficient building practices.

Q. PLEASE DESCRIBE SMARTSTAR.

A. In August 2009, Westar filed an application for an American Reinvestment and Recovery Act funding grant for the SmartStar Lawrence project. The project cost is projected to be slightly less than $40 million and will be eligible for about 50% in grant funding. On March 30, 2010, Westar and the U.S. Department of Energy reached agreement concerning funding of the SmartStar Lawrence project.

The objective of SmartStar Lawrence is to confirm the benefits of a smart grid for customers and Westar prior to a larger deployment. Westar will validate business case assumptions, determine customer preferences and acceptance, identify the best communication strategies, and establish new business processes. The intent is to provide data from real world application of the technology and to help determine best business processes before we make larger investments.

Operationally, Westar believes the project will allow us to gain invaluable experience in operating a smart grid environment and integrating other initiatives such as renewable energy, energy efficiency

technologies and demand management. This macro approach to the electric system will ultimately be what makes the system "intelligent" and able to meet the general vision of the smart grid.

The project will result in the installation and integration of the IT infrastructure required for system-wide smart grid implementation. Once in place, this infrastructure will position Westar for a much simpler, less expensive and more rapid expansion of the smart grid at the appropriate time.

Q. HOW MANY CUSTOMERS WILL BE INVOLVED IN THE SMARTSTAR PROJECT?

A. All of our customers in Lawrence consisting of 48,000 meter locations and a population of more than 90,000 people will be involved in the project. With a very customer centric approach, Westar intends to use the project to test many new customer service options. As the technology supports multiple communication mediums, customer feedback will be used extensively to refine and improve service offerings. Westar views the SmartStar Lawrence project as a significant step toward ensuring our ability to meet customer expectations in the future.

Q. PLEASE DESCRIBE THE METER TECHNOLOGY FOR SMARTSTAR.

A. All of our customers in Lawrence will receive the next generation of metering known as Advanced Metering Infrastructure (AMI), a

foundational block to building the intelligent smart grid network. AMI is the primary customer facing portion of the smart grid and completes the energy pathway of generation to transmission to distribution to customer. The smart grid is an advanced two-way communication environment with the ability to deliver many benefits to both the customer and company. While advanced technology is obviously required, the smart grid is really about information that can help Westar and our customers manage energy delivery and consumption better.

Q. WHAT ARE SOME OF THE KEY CUSTOMER BENEFITS OF THE SMART GRID RELATED TO ENERGY EFFICIENCY?

A. For the customer, the smart grid offers unsurpassed access to detailed energy usage, cost, comparative data and other energy efficiency tools. The smart grid will let customers make more informed choices on how they use electricity. It will provide a basis for multiple new products and services that may help customers reduce energy costs.

In connection with SmartStar, Westar is creating a customer services roadmap that customers will find motivating and empowering. Through a secure web portal, customers will be able to see current energy usage information, set personal profiles for the types of energy information they wish to receive and choose the types of programs in which they want to participate. Key customer benefits will include:

- Energy Usage Information – customers will be able to navigate between time frames such as daily interval, month and billing period to view energy use.
- Energy Cost – customers will be able to see their billing to date with the same flexible and intuitive interface as usage.
- Push Services – customers will be able to choose to receive alerts and summaries via e-mail and text (SMS). These alerts can include actual cost trend to a pre-set budget amount, on-going energy use summaries and also include outage and restoration notifications.
- Comparative Analysis – customers will be able to view cost and usage compared to similar periods in the past and see how they compare to others with similar home and area profiles.
- Energy Efficiency Tools and Analysis – customers will be able to receive personalized tips and tools for energy efficiency and conservation.
- Continuing New Offerings – as customer acceptance and preferences are better identified, new services will continue to be offered and existing ones improved.

The smart grid will also support the accommodation of renewable and other distributed generation including Plug-in Hybrid Electric Vehicles. Important to all Kansans, the smart grid will be able to integrate multiple sources of energy, including wind power, into the

power grid in ways that optimize renewable energy and other green energy alternatives.

Q. WILL ANY OF THE PROGRAMS ENABLED BY AMI METERS ADDRESS PEAK DEMAND?

A. SmartStar will enable a variety of new service rate structure options for customers. These options can support dynamic pricing, which targets peak reduction. Westar plans to initiate multiple pilot programs to test the effectiveness of different rate structures for curbing electricity demand during peak times. During this pilot phase all of these rate structures would be voluntary.

Q. ARE OTHER PILOT PROGRAMS PLANNED AS PART OF THE SMARTSTAR PROJECT THAT RELATE TO ENERGY EFFICIENCY OR REDUCING PEAK DEMAND?

A. Yes. Westar is considering pilot programs to test the effectiveness of home energy management devices that enable customers to track the energy use of individual items and control these items either using their preferred manual settings or automated settings based on things such as time of day or pricing signals. These programs would be voluntary.

Q. HAS WESTAR BEGUN EDUCATING CUSTOMERS ABOUT THE SMARTSTAR PROJECT?

A. Yes. Westar understands that for the SmartStar project to be successful customers must understand the benefits and tools that will be enabled by the project. Westar has been attending community

events and giving presentations to begin educating consumers about SmartStar. These efforts will increase in frequency, and we will begin a media education campaign in order to reach a wide audience regarding SmartStar and its benefits.

Q. WILL CUSTOMERS OUTSIDE THE SMARTSTAR PROJECT AREA EXPERIENCE BENEFITS?

A. Yes. These benefits will primarily fall in one of two areas best described as lessons learned from the project and technology enhancements that will serve all of Westar's customers.

For the first, while more difficult to quantify, a primary objective of the project is to understand better what types of customer programs and services will be well received and will in fact provide value to both customers and Westar. We will also learn more about the types of business process changes that will have to be made to support and realize full advantage from a smart grid environment. As a result, Westar will be in a better position to determine further deployment strategies and the type of programs that should be made available that will deliver the quickest and most value. The result is more sound financial stewardship of our efforts in this area.

In regard to technology enhancements, approximately $26 million of the $40 million project cost is for technology infrastructure upgrades. These upgrades will serve all Westar customers and include an advanced outage management system, a customer web portal and

an improved meter data management system. While it is true that there are specific benefits to customers with smart meters, improved system operations such as enhanced outage restoration and customer access to information will benefit all customers.

Q. WHAT IF CUSTOMERS DO NOT PARTICIPATE IN SMART METERING PROGRAMS. ARE THERE STILL BENEFITS?

A. Yes. The investment in smart meters, meter data management systems, advanced distribution equipment and smart grid enabled outage management systems will still deliver value even if not all of our customers are interested in participating in new programs. Smart metering itself offers remote meter reading, remote turn on and turn off capabilities – which we will explore using for standard orders such as a college rush period – voltage reporting and both momentary and sustained outage reporting.

The system intelligence provided by smart grid technology will save meter reading and service expenses. And the other information provided can help us recognize and address problem areas possibly helping us to prevent an outage. When outages do occur, smart grid technology can help us to determine more quickly their extent and probable cause enabling faster service restoration. Advanced distribution line equipment can recognize operational problems, provide automated switching and reporting and minimize outage extent and length.

With regard to renewable generation sources, the smart grid will be better able to integrate renewable energy, such as our wind farms, onto the grid allowing greater of use of those generation sources than is currently possible.

Q. YOU INDICATED THAT THE SMART GRID WILL PROVIDE WESTAR WITH "REMOTE TURN ON AND TURN OFF CAPABILITIES." WILL THAT AFFECT THE WAY IN WHICH THE COMPANY APPLIES ITS TARIFFS TO CUSTOMERS THAT FAIL TO PAY THEIR BILLS?

A. Remote turn on and turn off capabilities will allow us to effect service termination without a visit to the premises if we desire. However, even with that ability, we may choose to make service terminations for non-payment in person because such visits provide us our best opportunities to obtain payment from delinquent customers. In any event, even with the new capabilities provided by the smart grid, service will only be initiated or terminated pursuant to our approved tariffs and general terms and conditions.

Q. WHAT PROGRAMS DO YOU HAVE TO EDUCATE HVAC PROFESSIONALS AND BUILDERS?

A. We have developed direct relationships with HVAC professionals and builders to engage them in an ongoing discussion about the benefits of high-efficiency equipment and of building practices that improve the thermal envelope and, thus, the energy efficiency of homes. As part of this program, we provide financial incentives, brochures and other

educational materials these trade allies can use when educating consumers about heat pumps, lighting, insulation, and related matters.

Q. WHY HAVE YOU SELECTED THIS APPROACH TO WORKING WITH HVAC PROFESSIONALS AND BUILDERS?

A. This program supplements our direct-to-consumer education. Decisions to replace HVAC equipment are often made under the exigencies of the moment when much needed air conditioning equipment fails on a hot summer day. At such times, customers will often look to a trusted professional for a quick solution. Similarly, whether building or purchasing a new home, customers typically look to the professionals with whom they have established some trust and a relationship for guidance regarding building choices that affect the efficiency of the home.

Q. DOES WESTAR HAVE PROGRAMS OR POLICIES IN PLACE TO "LEAD BY EXAMPLE" FOR ENERGY EFFICIENCY?

A. Yes. As mentioned before, our "Save A Watt, Save A Lot" program aims to encourage energy savings in our offices. In addition to this, early in the operation of our Energy Efficiency Department, we established programs to encourage employees to save energy at home.

Our experience has shown that our employees and retirees can be effective educators of our customers. Most of them live in the communities we serve at retail, and our customers often consult them on energy matters. We launched an employee and retiree program to

offer rebates for them to install high efficiency HVAC equipment. Those who use the program become "ambassadors" to our customers. Even those who are not ready to replace their HVAC systems have become more conversant about the benefits of high efficiency equipment by virtue of educational seminars conducted for employees when we launched the program.

With the success of this program, we added a companion program that provides rebates to employees and retirees for the purchase of EnergyStar-qualified energy efficient lighting. As federal laws and retail product lines change, many consumers are finding purchasing new light bulbs takes more forethought that in the past. Our lighting rebate program and accompanying literature has helped us educate employees who in turn spread the message to our customers.

Westar also adopted a policy to adhere to the Leadership in Energy and Environmental Design (LEED) standards when practical when it builds a new office facility or makes major renovations to an existing office space. LEED is also referred to as "Green Building Rating" and designates the state-of-the art in energy efficient, environmentally sound construction. In one example of our leadership in this area, Westar renovated and expanded its service center in Lawrence and earned LEED Silver certification.

Westar's operations leadership continues to identify projects to improve system efficiency. This year Westar completed a project to

provide a major 345 kV tie across the west end of our system from Wichita to Salina that will help the company fulfill energy needs more efficiently.

IV. DISCUSSION OF WESTAR'S LONGER-STANDING EFFORTS IN THE AREA OF ENERGY EFFICIENCY AND CONSERVATION

Q. WHAT HAS WESTAR HISTORICALLY DONE TO ENCOURAGE ITS CUSTOMERS TO USE ENERGY EFFICIENTLY?

A. We have proposed and implemented tariffs designed to encourage the efficient use of energy. We accomplish this primarily through the use of summer/winter pricing differences. The summer residential rate is higher than the winter rate thereby encouraging energy conservation during those months when demand for electricity is highest. The non-residential rate schedules have seasonally differentiated prices but also use demand ratchets to encourage off-peak usage and provide an incentive to avoid establishing high peak demands in the summer period. Pricing of the overall cost of energy designed to encourage the wise use of energy can be found throughout Westar's tariffs.

Q. DOES WESTAR HAVE AN INTERRUPTIBLE SERVICE PROGRAM THAT ALLOWS CUSTOMERS TO ACCEPT INTERRUPTIONS IN THEIR SERVICE IN EXCHANGE FOR LOWER PRICES?

A. Yes.

Q. HOW DOES THE PROGRAM WORK?

A. Westar has an active interruptible program with 83 customers participating. We administer this program through clauses in special

contracts and three rate schedules approved by the Commission for large industrial customers. We called on our interruptible customers three days this summer during peak conditions. Peak reduction during the hours of interruption on those days ranged from 105 MW to 155 MW. These reductions are in addition to the 95 MW available through the EE DR program discussed above. Another component of this long-standing demand response program is an option for us to call on cogeneration units of two industrial retail customers during peak periods.

V. PUBLIC POLICY CONSIDERATIONS AFFECTING WESTAR'S WIND GENERATION INITIATIVE AND WESTAR'S CAPACITY SUPPLY PLAN

Q. PLEASE DESCRIBE LEGISLATIVE DEVELOPMENTS WITH REGARD TO RENEWABLE RESOURCES.

A. During the 2009 Kansas legislative session, Senate Substitute for House Bill 2369 was passed by both chambers and signed into law by Governor Parkinson. As summarized by the Kansas Legislative Research Department,

> The bill enacts the Renewable Energy Standards Act that requires electric public utilities, except municipally owned electric utilities, to generate or purchase specified amounts of electricity generated from renewable resources. The Kansas Corporation Commission (KCC) is given broad authority to adopt rules and regulations implementing the standards and establishing enforcement mechanisms including administrative fines.
>
> Renewable energy may be generated by wind; solar thermal sources; photovoltaic cells and panels;

dedicated crops grown for energy production; cellulosic agricultural residues; plant residues; methane from landfills or from wastewater treatment; clean and untreated wood products such as pallets; existing hydropower; new hydropower, not including pumped storage, that has a nameplate rating of 10 megawatts or less; fuel cells using hydrogen produced by one of the other renewable energy resources; and other sources of energy, not including nuclear power, that become available after enactment of the bill and that are certified as renewable under rules and regulations of the KCC.

The renewable portfolio requirement requires utilities to obtain net renewable generation capacity constituting at least the following portions of each affected utility's peak demand based on the average of the three prior years:

- 10 percent for calendar years 2011 through 2015;
- 15 percent for calendar years 2016 through 2019; and
- 20 percent for each calendar year beginning in 2020.

Renewable energy credits may only be used to meet a portion of the requirement in 2011, 2016, and 2020, unless otherwise authorized by the Commission.

Each megawatt of eligible renewable capacity installed in Kansas after January 1, 2000, will count as 1.10 megawatts for purposes of compliance with the renewable energy requirement. The capacity of any systems interconnected with the affected utilities under the Net Metering and Easy Connection Act (also part of the bill) or the parallel generation statute will count toward compliance with the renewable energy requirement.

The KCC is required to allow affected utilities to recover reasonable costs incurred by the utilities to meet the requirements of the Act.

2009 Summary of Legislation, Legislative Research Department, at 44 (June 2009).

Q. HAS CONGRESS TAKEN ANY ACTION THAT AFFECTS WESTAR'S GENERATION PLANNING?

A. No. While both houses of Congress have considered bills that could affect generation planning by either requiring reductions in carbon emissions or imposing a renewable generation requirement, no bill has passed to date. Action by Congress on either of these matters could impact our plans in the future.

Q. HAS ANY FEDERAL AGENCY ADDRESSED GREENHOUSE GAS (GHG) EMISSIONS?

A. Not yet but that process is underway. In an April 2, 2007 decision in *Commonwealth of Massachusetts v. Environmental Protection Agency*, the U.S. Supreme Court ruled 5 to 4 that the Environmental Protection Agency (EPA) violated the Clean Air Act by improperly declining to regulate GHG emissions from mobile sources. The Court ruled "EPA has offered no reasoned explanation for its refusal to decide whether greenhouse gases cause or contribute to climate change" and that the EPA "identifies nothing suggesting that Congress meant to curtail the EPA's power to treat greenhouse gases as air pollutants." This opinion cleared the way for EPA to regulate GHG emissions.

In response to the Court's ruling, EPA has drafted and approved the Tailoring Rule, which allows for the regulation of GHG emissions. Any new power plant construction or modifications must apply for a permit that specifies the Best Available Control Technology (BACT) and

energy efficiency measures the utility will take to control GHG emissions. EPA Region VII in Kansas City is expected to provide specific guidance on these matters in soon.

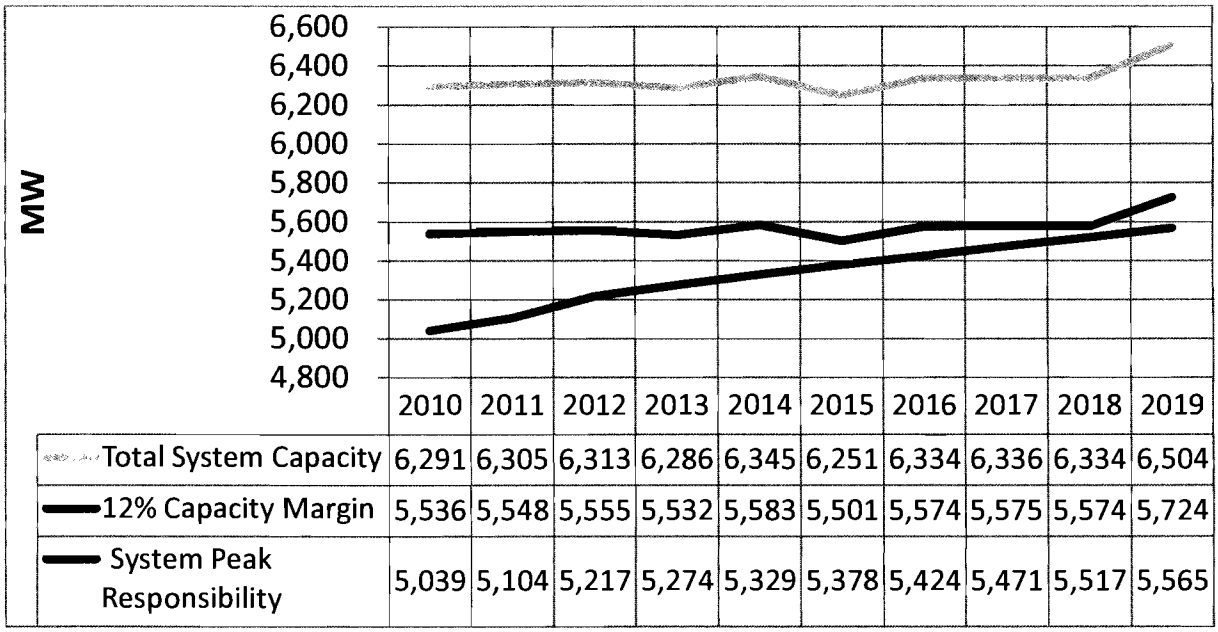
Q. HOW DO THE RES REQUIREMENTS IMPOSED BY KANSAS LAW AFFECT WESTAR'S CAPACITY SUPPLY PLAN?

A. Westar is depending on wind power to meet nearly all its RES requirements. However, the Southwest Power Pool (SPP), our official reliability organization, credits little capacity to wind power because of its intermittent, unpredictable dispatchability. Consequently, we count only about five percent of our wind turbines' nameplate capacity in our long-term capacity supply plan.

Q. DOES WIND POWER'S LOW ACCREDITED CAPACITY CONCERN YOU OR UNDERMINE WESTAR'S LONG-TERM CAPACITY SUPPLY PLAN?

A. No. As Table 1 shows, our current capacity supply plan indicates we do not need additional generating capacity over the next 10-year planning horizon, either to meet our customers' needs or to comply with SPP's requirement for load-serving entities to carry a 12 percent capacity margin.

Table 1 – Forecast Capacity Margin
2010 through 2019



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total System Capacity	6,291	6,305	6,313	6,286	6,345	6,251	6,334	6,336	6,334	6,504
12% Capacity Margin	5,536	5,548	5,555	5,532	5,583	5,501	5,574	5,575	5,574	5,724
System Peak Responsibility	5,039	5,104	5,217	5,274	5,329	5,378	5,424	5,471	5,517	5,565

We also have ample natural gas fired generating resources to "fill in the gaps" of variable wind generation.

Q. WHAT IS THE BASIS OF WESTAR'S FORECAST SYSTEM PEAK RESPONSIBILITY SHOWN IN TABLE 1?

A. The forecast was made using the model that was jointly developed by Westar and Staff and is discussed in the testimony of Paul Dietz.

Q. YOU INDICATE THAT WESTAR DOES NOT EXPECT TO ADD NEW GENERATION IN THE NEXT 10 YEARS. IF THAT IS THE CASE, WHY DOES TABLE 1 SHOW THAT WESTAR'S TOTAL SYSTEM CAPACITY INCREASES FROM 6291 MW IN 2010 TO 6504 MW IN 2019?

A. The table shows the total capacity that Westar expects to have available to serve its requirements customers – basically, retail

customers and wholesale full requirements customers. The amount of capacity Westar has available to serve those customers can be – and within the 10-year planning horizon is – affected by other factors than construction of new generation. Over the 10-year planning horizon shown in Table 1, Westar's available capacity is expected to be affected by uprates to Wolf Creek, the retirement of some older steam units, and the termination of several capacity sales. The result of these changes is that in 2019, Westar expects to have more capacity available to serve its native load customers than it does currently.

Q. WHAT IF THE ECONOMY RECOVERS QUICKLY AND LOAD GROWTH OCCURS FASTER THAN YOU HAVE ASSUMED IN YOUR 2010 CAPACITY SUPPLY PLAN?

A. Our capacity supply plan is a dynamic process, and we know that some of today's assumptions are likely to change and results in subsequent updates. Nonetheless, we are confident we would have enough lead time to bring new natural gas generation on line if circumstances warrant. Natural gas is the most likely type of generation we will need next. It would also be possible for us to purchase capacity in the wholesale market if necessary.

We could also meet a portion of our peak needs through demand reductions that are not reflected in Table 1. Possible sources of demand reduction not reflected in Table 1 include projected demand reductions of approximately 100 MW from our WattSaver and

BOC programs by 2015. Additionally, we could realize demand reductions through the participation by a few more of our large industrial and commercial customers in our longstanding interruptible service programs. For all of those reasons, together with current projections in our 2010 capacity supply plan, we are confident that we will meet our customers' needs and our SPP obligation.

Q. YOU ADMIT TO UNCERTAINTY ABOUT POSSIBLE CONGRESSIONAL ACTION AND YOU HAVE INDICATED THAT WESTAR'S CAPACITY SUPPLY PLAN IS DYNAMIC, NOT STATIC, AND CHANGES OVER TIME. HOW SHOULD THE COMMISSION REGARD THESE UNCERTAINTIES AS IT CONSIDERS WESTAR'S REQUESTS REGARDING WIND POWER IN THIS DOCKET?

A. We acknowledge those uncertainties, and others. But even in the face of uncertainty and the current economic downturn, demand for electricity in Kansas and nationally is still projected to grow. To meet our customers' needs, Westar has undertaken a transitional strategy, the hallmarks of which are flexibility and adaptability. In the years ahead, during the horizon of our forecast, it is most likely that hindsight will show some times when our capacity and DSM decisions seemed right, and other times when they seemed wrong.

Take as an example our current position on building a new coal plant. At the end of 2006, we announced that Westar was indefinitely

deferring commitment to construct a new pulverized coal (PC) unit because costs for coal generation were escalating so rapidly that the narrowing cost differences between PC baseload generation and other kinds of generation were making the most advantageous economic choice harder to discern. Since then, the concerns and policy discussions regarding GHGs have intensified, and costs to construct PC plants have continued to escalate. Opposition to new coal plants will cause delays, and hence, cost over-runs.

Because we started early enough in evaluating sites for additional PC baseload capacity, we can take a different course, at least for a while. Hindsight today makes it appear we were right. But we readily admit that if costs for generating fuels other than coal spike and GHG emission limits never come to pass, hindsight at some specific time in the future could suggest that we were wrong. We continue to keep our options open with respect to a new PC plant, but in the context of our transitional strategy, we are studying emerging, but yet unproven coal technologies that pollute less and observing efforts to rejuvenate the nuclear power industry. At some point, our customers will need new baseload capacity.

Q. HOW WILL WESTAR DEFER ADDING BASELOAD CAPACITY AND CONTINUE TO MEET ITS CUSTOMERS' ELECTRICITY NEEDS?

A. This question gets to the heart of Westar's transitional strategy. Our strategy is to bridge the gap, meet customer demand and satisfy

environmental concerns with a combination of energy efficiency and DSM, adding wind generation to our system, adding new combustion turbines that can both meet peak demand and compensate for the intermittent nature of wind, and enhance the transmission network in Kansas. This strategy pushes out the need for baseload capacity, at least for a few years. Another transitional component of our strategy would be to determine over the next few years whether some of the projected need for additional peaking capacity should instead be combined cycle intermediate capacity.

It is in this context of a flexible, adaptive strategy that the Commission should consider our requests for wind power in this docket. It is a strategy that:

- acknowledges our or anyone else's limited ability to predict the future accurately;
- avoids a "win-or-lose-all" wager to a single predicted outcome (for example, committing now to building several large PC or nuclear plants or counting on a nascent technology);
- increases diversity of electricity supply;
- respects environmental concerns;
- uses an abundant renewable Kansas resource, i.e., wind;
- results in higher, but still reasonable electric rates;
- spurs investment in much-needed high capacity transmission lines; and,

- advances the State's renewable energy policy with properly sited wind generating facilities.

Q. THANK YOU.