

BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

DIRECT TESTIMONY

OF

JAMES LUDWIG

WESTAR ENERGY

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1

I. INTRODUCTION

2

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

3

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

4

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

5

A. Westar Energy, Inc. (Westar). I am Executive Vice President,

6

Public Affairs and Consumer Services.

7

Q. PLEASE DESCRIBE YOUR ELECTRIC UTILITY EXPERIENCE

8

AND YOUR EDUCATION.

9

A. I started at Westar in June 1989 as an Information Specialist. Later

10

that year, I was appointed Director, Government Affairs and served

11

in that capacity until mid-1995. From then until I resigned from

12

Westar in October 2001, I was Senior Director, Regulatory Affairs.

13

I returned to Westar at the beginning of 2003 as Vice President,

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

6 **II. SUMMARY OF TESTIMONY**

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

8 A. I discuss Westar's energy efficiency and smart grid initiatives. I
9 also discuss the costs associated with our SmartStar program.

10 Our energy efficiency programs help customers get more
11 value out of their energy expenditures. Faced with the hard fact
12 that electric rates are increasing, primarily because of costs to
13 comply with federal and state policy mandates, it is important to
14 provide customers ways to make choices to control their energy
15 costs. Customers who participate in our energy efficiency and
16 demand response programs can more effectively manage their
17 energy costs and efficiently allocate their resources. Their
18 participation also benefits customers at large. Customers need not
19 sacrifice comfort and convenience by participating in our energy
20 efficiency programs. Although we expect their *rates* will still go up,
21 how much their total *bills* go up depends on how much energy they
22 choose to use. In many cases they can mitigate the effects of price
23 increases on their total energy budgets.

1 SmartStar Lawrence is Westar's initial deployment of what is
2 commonly referred to as the smart grid. Besides installing
3 advanced metering infrastructure (AMI) in Lawrence, the project
4 also includes significant IT infrastructure upgrades, online energy
5 dashboard information for customers, advanced distribution
6 equipment and a new outage management system. While the
7 advanced meters and distribution equipment are specific to
8 Lawrence, the rest of the project provides benefit to customers
9 system-wide. The estimated cost of the project to Westar is about
10 \$21 million, about half of the \$42 million total. Westar negotiated a
11 grant to pay approximately half the cost through the Smart Grid
12 Investment Grant portion of the American Recovery and
13 Reinvestment Act of 2009 (ARRA). The three-year initiative in
14 Lawrence will help us determine if further deployment throughout
15 our service territory will result in enough benefits to justify the cost
16 of deploying it more broadly.

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

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

21 A. Westar formed its Energy Efficiency Department in 2007. The
22 Energy Efficiency Department has 14 employees and three areas
23 of emphasis: consumer services, demand side management (DSM)
24 and trade and ally partnerships.

1 Q. WHAT IS WESTAR'S BASIC PHILOSOPHY REGARDING
2 ENERGY EFFICIENCY EDUCATION AND PROGRAMS?

3 A. Comfort, convenience, connection – these are the elements we
4 provide to our customers through the safe, reliable delivery of
5 electricity. Electricity powers our customers' way of life, from
6 keeping their food refrigerated and their homes cool in the summer
7 to facilitating Facebook exchanges and family movie nights. The
8 demand for electricity continues to increase as new products from
9 e-readers to electric cars enter the marketplace. Innovative
10 technologies proliferate at an unprecedented pace. To help
11 manage demand, we have developed several educational and
12 energy efficiency and demand response programs to help
13 consumers use energy wisely. Collaboration and cooperation will
14 help postpone the need for additional power plants and help
15 preserve the environment. By providing customers with tips and
16 tools to initiate behavior changes, we can establish a strong
17 foundation for additional energy efficiency and demand side
18 management programs.

19 Although most of us have a pretty accurate sense of how
20 long a foot is or about how much water is in a cup, relatively few
21 have a good sense of what a kilowatt-hour (kWh) is, or what
22 distinguishes a kilowatt (kW) from a kWh. Hence, one area of
23 emphasis we are focusing on in 2011 with our messaging is the

1 value that customers receive for the electricity they use to make
2 their lives run more smoothly. The production and delivery of safe,
3 reliable electricity is at the heart of everything we do at Westar. As
4 electric consumers ourselves, we know how important electricity is
5 to our quality of life and also how easy it is to take for granted the
6 seeming magic of flipping on a switch and having light, hot coffee,
7 or an Internet connection whenever they are desired. Customers
8 who buy and experience tangible products often do not consider
9 that their purchases of appliances, smart phones, and
10 entertainment devices increase demand for electricity. When
11 blowing their hair dry in the morning or watching a basketball game
12 or checking email at night, most do not consider that those routine
13 actions are backed by an expansive and intricate 24/7 infrastructure
14 of power plants, wind farms and service centers supported by a
15 cadre of other professionals doing whatever it takes to keep their
16 lights on.

17 Our goal is to use common applications and plain language
18 in a variety of venues to explain that at approximately 10 cents a
19 kWh for residential customers, electricity is a bargain. For
20 example, most customers understandably expect to pay more than
21 32 cents for a pack of gum or a bottle of water that will provide
22 fleeting satisfaction, yet many do not realize that the same 32 cents
23 can do all of the following: operate their garage door opener for a

1 month, light three rooms in their home for 10 hours, or wash a load
2 of laundry. As the demand for safe, reliable electricity continues to
3 climb, reinforcing both the value of electricity and the relevance of
4 using it wisely will be at the forefront of our energy efficiency
5 educational efforts.

6 **Q. BY WHAT CRITERIA DOES WESTAR CONSIDER AND JUDGE**
7 **ENERGY EFFICIENCY AND DEMAND RESPONSE**
8 **PROGRAMS?**

9 A. We have developed a set of cost-benefit tests based on what has
10 become an industry best practice, using the *California Standard*
11 *Analysis of Demand-Side Programs and Projects, July 2002*.
12 Several public utility commissions across the country use this
13 analysis or a similar variation of it to evaluate demand-side
14 management programs. Although purely educational programs do
15 not lend themselves to this analysis, we have submitted our
16 demand response programs to these tests. Likewise, KCC Staff
17 has used the analysis to advise the Commission as to the merits of
18 programs we have proposed for approval. The analysis includes
19 five cost-effectiveness tests applied to each program. In its order in
20 Docket 08-GIMX-442-GIV, the Commission has outlined how it
21 intends to consider the cost-effectiveness tests in deciding whether
22 to approve programs.

1 Q. DOES WESTAR HAVE ANY ENERGY EFFICIENCY OR DSM
2 PROGRAMS THAT HAVE BEEN APPROVED BY THE
3 COMMISSION?

4 A. Yes.

5 Q. WHAT ARE THE PROGRAMS?

6 A. The programs are:

- 7 1. WattSaver (Docket No. 09-WSEE-636-TAR) – a
8 programmable thermostat/direct load control program;
- 9 2. Building Operator Certification (Docket No. 09-WSEE-738-
10 MIS) – an educational series for facility managers;
- 11 3. SimpleSavings (Docket No. 10-WSEE-775-TAR) – a
12 program that enables qualified customers to repay approved
13 energy efficiency upgrades to homes and small businesses
14 on their Westar bill;
- 15 4. Energy Efficiency Education (Docket No. 09-WSEE-986-
16 ACT) – an array of consumer venues for distributing energy
17 efficiency information to influence behavior change; and
- 18 5. Energy Efficiency Demand Response (EE DR) Program
19 (Docket No. 10-WSEE-141-TAR – a program for large
20 energy users able to reduce their electrical load very quickly
21 that entices them to do so when conditions on our system
22 warrant it (i.e., “load shedding”).

1 Q. CAN YOU PROVIDE THE COMMISSION WITH A DESCRIPTION
2 OF EACH PROGRAM?

3 A. Yes. A description of each of the programs is set forth in Exhibit
4 JL-1, which is attached to my testimony.

5 Q. DOES WESTAR HAVE ANY OTHER ENERGY EFFICIENCY
6 PROGRAMS PENDING BEFORE THE COMMISSION?

7 A. Not at this time, however, we are evaluating an appliance recycling
8 program. This tentative initiative is also described in Exhibit JL-1.

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

11 A. Yes. Westar's policies and programs of an exemplary nature are
12 also described in Exhibit JL-1.

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

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

17 A. Westar, Staff and CURB have worked to design tariffs that send the
18 right price signals to customers to encourage them to use energy
19 efficiently. Westar has accomplished this primarily through the use
20 of summer/winter pricing differences. The summer residential rate
21 is higher than the winter rate, signaling seasonal production cost
22 differences, thereby encouraging energy conservation during those
23 months when demand for electricity and the cost of production is
24 highest. The non-residential rate schedules have seasonally

1 differentiated prices but also use demand ratchets to encourage off-
2 peak usage and provide an incentive to avoid establishing high
3 peak demands in the summer period, thereby creating an incentive
4 to utilize existing assets and allocate economic resources more
5 efficiently. Pricing of the overall cost of energy designed to
6 encourage the wise use of energy can be found throughout
7 Westar's tariffs.

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

12 A. Yes.

13 **Q. HOW DOES THE PROGRAM WORK?**

14 A. Westar has an active interruptible program with 83 customers
15 participating, which allows us to partner with them to allocate
16 resources more efficiently with the flexibility of "trading" cost for the
17 degree of "firmness" of service. Westar called on our interruptible
18 customers three days in the summer of 2010 during peak
19 conditions, thereby reducing demand on our system when the
20 incremental costs are highest. In exchange, they, of course, pay
21 less for helping us manage demand on our system. Peak reduction
22 during the hours of interruption on those days ranged from 105
23 megawatts (MW) to 155 MW; akin to about one typical peaking

1 generation unit. Westar has called on our interruptible customers
2 once so far in 2011, due to system peaking conditions. These
3 reductions are in addition to the 95 MW available through the
4 demand response program discussed in Exhibit JL-1. Another
5 component of this long-standing interruptible service program is an
6 option to call on cogeneration units of two industrial retail
7 customers during peak periods.

8 **V. SMARTSTAR PROJECT**

9 *A. Description of the SmartStar Project*

10 **Q. PLEASE DESCRIBE SMARTSTAR LAWRENCE.**

11 *A.* In August 2009, Westar filed an application for an American
12 Reinvestment and Recovery Act funding grant for the SmartStar
13 Lawrence project. It is projected to cost approximately \$42 million,
14 but due to our having secured a matching grant from the U.S.
15 Department of Energy (DOE), the net cost to our system is about
16 half that.

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

1 Westar believes the project will provide invaluable
2 experience in operating a smart grid environment and integrating
3 other initiatives such as renewable energy, energy efficiency
4 technologies and demand management. This macro approach to
5 the electric system will ultimately be what makes the system
6 “intelligent” and able to meet the general vision of the smart grid.

7 The project will result in the installation and integration of the
8 information technology infrastructure required for system-wide
9 smart grid implementation. Once in place, this infrastructure will
10 position Westar for a much simpler, less expensive and more
11 efficient expansion, should the benefits of extending the program
12 exceed its costs.

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

15 A. All customers in Lawrence consisting of approximately 46,000
16 meter locations and a population of more than 90,000 people will
17 be involved in the project. The project is approved for a total of
18 48,000 meters and we will look at expanding to contiguous rural
19 areas once the City of Lawrence is complete. With a very
20 customer-centric approach, Westar intends to use the project to
21 test several new customer service options. Customer feedback will
22 be used extensively to refine and improve service offerings, and
23 that feedback will be collected via multiple communication

1 channels. Westar views the SmartStar Lawrence project as a
2 significant step toward ensuring our ability to meet customer
3 expectations in the future.

4 **Q. PLEASE DESCRIBE THE METER TECHNOLOGY FOR**
5 **SMARTSTAR.**

6 A. All customers in Lawrence will receive the next generation of
7 metering known as Advanced Metering Infrastructure (AMI), a
8 foundation block to building the intelligent smart grid network. AMI
9 supports the primary customer-facing portion of the smart grid and
10 completes the energy pathway of generation to transmission to
11 distribution to customer. The smart grid is an advanced two-way
12 communication environment with the ability to deliver many benefits
13 to both the customer and company. While advanced technology is
14 obviously required, the smart grid is ultimately about information
15 that can help Westar and our customers manage energy delivery
16 and consumption better.

17 **Q. PLEASE DESCRIBE IN GENERAL TERMS THE OVERALL**
18 **CUSTOMER RESPONSE TO SMARTSTAR TO THIS POINT.**

19 A. Statistically valid survey information obtained in January 2011 from
20 customers in Lawrence shows that approximately 64% are either
21 positive or very positive about the SmartStar project. Another 26%
22 indicated a neutral position, which more detailed analysis shows is
23 a result of not having enough information yet to have a firm opinion.

1 About 10% indicated a negative opinion of the project. This is a
2 much lower figure than we have seen utilities experience
3 elsewhere, in large part, we believe, because of the extensive
4 educational efforts we undertook and the transparency with which
5 we have discussed the program. Additionally, customers who were
6 aware of the project indicated a belief that SmartStar would help
7 them monitor their electricity usage and would help them identify
8 ways to conserve.

9 B. *Current Status of SmartStar Project*

10 **Q. WHAT IS THE STATUS OF THE SMARTSTAR LAWRENCE**
11 **PROJECT?**

12 A. In January 2011, a total of 1387 residential and commercial meters
13 were exchanged in the Deerfield Subdivision area of Lawrence.
14 This deployment was intended to confirm interoperability with the
15 communication and IT infrastructure. These exchanges took place
16 following extensive communication with the neighborhood through
17 local open houses and a series of direct mail pieces. In May,
18 Westar launched the online SmartStar energy dashboard to
19 approximately 1200 residential customers in this neighborhood.

20 In addition to the Deerfield neighborhood, Westar has been
21 systematically exchanging transformer rated meters with AML
22 meters for the past few months. These meters are primarily located
23 at business locations and require Westar personnel for exchange.

1 As of August 19, approximately 850 of the total of 1050 of this type
2 of meter have been exchanged.

3 **Q. WHAT HAS THE RESPONSE TO THE DASHBOARD BEEN SO**
4 **FAR?**

5 A. As of August 19, 2011, we have had 335 first time visitors to the
6 dashboard representing about 28% of the customers who currently
7 have the capability to use the dashboard. About 10% of those
8 visitors have signed up for an alert or summary report feature.
9 These numbers continue to grow every day. We will continue to
10 actively market utilization and the alert features as we go forward
11 with the project. We think an opportunity to regularly connect with
12 over 25% of our customers on their energy use is good. However,
13 we are confident that with further deployment and communication
14 that percentage will increase. Response to date from customers
15 using the dashboard has been very positive.

16 **Q. WHEN DO YOU EXPECT TO BE FINISHED INSTALLING ALL**
17 **THE NEW SMART METERS IN LAWRENCE?**

18 A. Westar currently anticipates the city wide exchange to begin this
19 fall and expects the majority of the meter exchanges to be
20 completed by the end of 2011. There may be some exceptions for
21 hard to reach locations, or those that need other work completed
22 prior to meter exchange.

23 **Q. PLEASE DESCRIBE THE METER EXCHANGE PROCESS.**

1 A. Westar or our authorized representative, Honeywell, will exchange
2 the meters. Both Westar and Honeywell vehicles are clearly
3 identified, as are the installers who will have ID badges and clearly
4 marked shirts.

5 At the time of the meter exchange we will knock on a
6 customer door prior to beginning work. We will also leave a door
7 hanger with information on the SmartStar program, including how to
8 access the new energy dashboard. Meter exchanges will take place
9 during daylight hours, Monday through Saturday. The exchange
10 itself is simple and quick, generally taking only a few minutes. A
11 safety check of the meter box and connections will also be
12 completed at the time of the exchange. Some customers may need
13 to reset clocks and/or may prefer to turn off some equipment with
14 the meter exchange process. Special arrangements will be made
15 for those customers on life support or with other sensitive medical
16 equipment in their home.

17 **Q. WHAT ARE THE TOTAL PROJECT EXPENDITURES TO DATE?**

18 A. As of July 31, 2011, total project expenditures, not including
19 reimbursement credit, have been \$1,908,302 for O&M and
20 \$22,919,358 for capital, for a total combined expenditure of
21 \$24,827,660. These expenditures represent 2010 and 2011 costs
22 to date. Total 2010 and 2011 budgeted project expenditures, not
23 including credit, for the period ending December 31, 2011, are

1 \$39,023,820 representing \$3,622,159 for O & M and \$35,401,661
2 for capital. Additional expenditures on the project in 2012 are
3 expected to bring the project totals to about \$42 million.

4 Westar will provide the actual year ending December 31,
5 2011 expenditures to the Commission and its Staff.

6 **Q. HOW MUCH COST REIMBURSEMENT HAS BEEN RECEIVED**
7 **FROM THE DOE TO DATE?**

8 A. As of July 31, 2011 Westar has received a total of \$11,013,538 in
9 reimbursement. This reimbursement represents \$682,124 in O & M
10 and \$10,331,414 in capital. Total reimbursement from the DOE of
11 the estimated \$42 million project costs will be \$19,041,565.

12 C. *Customer Communication and Benefits*

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

15 A. Yes. Westar understands that for the SmartStar project to be
16 successful customers must understand the benefits and tools that
17 will be enabled by the project. Beginning with the initial application
18 for the Smart Grid Investment Grant funding in 2009, Westar
19 undertook a community marketing approach making ourselves and
20 project information available at numerous community events, City
21 and County public meetings, key community organizational
22 meetings and have actively kept local media informed of the
23 progress of the project.

1 Our survey information, when compared to earlier survey
2 results and national surveys, indicates that if a customer has an
3 understanding of the energy use information that SmartStar will
4 provide, the customer usually has a substantially positive opinion of
5 the project. Westar has been regularly attending community events
6 and giving presentations to educate consumers about SmartStar. A
7 SmartStar Lawrence project web page was introduced in November
8 2010 ([www.westarenergy.com/ smartstar](http://www.westarenergy.com/smartstar)) that provides project
9 details and is updated with new information as the project
10 progresses. Common customer questions are also addressed via
11 the blog on this website and it provides a place for customers to
12 provide feedback and/or ask questions to Westar. We have also
13 set up a dedicated toll free phone number 855-StarOne (855-782-
14 7663), which is directed to specially trained customer service
15 representatives in our Customer Relations Center to respond to
16 customer questions. A paid media education campaign was also
17 undertaken in 2011 to reach a broad based customer audience.
18 Westar also is utilizing social media communication channels,
19 taking advantage of these popular media to reach certain customer
20 segments.

21 **Q. HOW DO YOU KNOW IF THE CUSTOMER EDUCATION**
22 **EFFORT IS EFFECTIVE?**

1 A. Westar has included a comprehensive customer survey approach
2 in the project in order to gauge customer understanding and
3 perceptions. These have included ongoing online, focus group,
4 and in-person surveys to measure the effectiveness of our
5 communication efforts and general perception of the project by our
6 customers. We have made adjustments in our communications in
7 areas where this feedback indicated a need for more information or
8 a discussion of areas not previously addressed.

9 **Q. WHAT ARE SOME OF THE KEY CUSTOMER BENEFITS OF**
10 **WESTAR'S SMARTSTAR PROJECT?**

11 A. For the customer, our SmartStar project will offer convenient
12 access to detailed energy usage, cost, comparative data and other
13 energy efficiency tools via a secure online account. This will enable
14 customers to make more informed choices on how they use
15 electricity. It will provide a basis for multiple new products and
16 services that may help customers reduce energy costs.

17 One component of SmartStar, is the creation of a customer
18 services roadmap that customers will find motivating and
19 empowering. Through a secure web portal, customers will be able
20 to see current energy usage information, set personal profiles for
21 the types of energy information they wish to receive and choose the
22 types of programs in which they want to participate. Key customer
23 benefits will include:

- 1 • Energy Cost – customers will be able to see their
2 approximate billing costs to date with the same flexible and
3 intuitive interface as usage.
- 4 • Push Services – customers will be able to choose to receive
5 alerts and summaries via e-mail and text (SMS). These
6 alerts can include notification when a pre-set budget amount
7 is reached and/or weekly and monthly detailed summary
8 reports of their energy usage. In the future we plan to include
9 outage and restoration notifications and other options that
10 will be based in large part on customer feedback. We will
11 also support mobile applications for this information in future
12 enhancements.
- 13 • Comparative Analysis – customers will be able to view cost
14 and usage compared to similar periods in the past. Future
15 enhancement plans include the ability to see how they
16 compare to others with similar homes and area profiles.
- 17 • Energy Efficiency Tools and Analysis – customers will be
18 able to receive personalized tips and tools for energy
19 efficiency and conservation.
- 20 • Additional Offerings – as customer acceptance and
21 preferences are better identified, new services will continue
22 to be offered and existing ones improved.

1 The smart grid will also support the accommodation of
2 renewable and other distributed generation including plug-in hybrid
3 electric vehicles and all-electric vehicles. Important to all Kansans,
4 the smart grid will be able to integrate multiple sources of energy,
5 including wind power, into the power grid in ways that optimize
6 renewable energy and other green energy alternatives.

7 **Q. PLEASE DISCUSS THE SUPPORT OF ELECTRIC VEHICLES IN**
8 **MORE DETAIL.**

9 A. Westar has taken a position of leadership in providing customers
10 with information on electric vehicles and including them in our fleet.
11 The Westar ElectroGo program will continue to grow with public
12 charging infrastructure initiatives and rate design incentives to
13 encourage affordable, off peak charging options for customers.
14 The smart grid development is critical in being able to deliver the
15 type of service programs that will encourage public acceptance of
16 electric vehicles.

17 In order to earn credibility with customers as a trusted
18 resource about electric vehicles and transportation, we are leading
19 by example. We have recently added two electric trucks, two
20 Chevrolet Volts and two Nissan LEAF's to our fleet. We have four
21 Ford Transit Connect's on order with expected delivery by the end
22 of August.

1 Besides using the electric vehicles to conduct our business,
2 we plan to sponsor events where our customers can have a chance
3 to test drive our passenger size electric vehicles. We have already
4 given the media that opportunity in Topeka.

5 We have recently launched a webpage on electric vehicles
6 at www.westarelectrogo.com and will continue to build on that site
7 to make it an informative and convenient location for customers to
8 find out more about electric vehicles.

9 **Q. WILL ANY OF THE PROGRAMS ENABLED BY THE ADVANCED**
10 **METERS ADDRESS PEAK DEMAND?**

11 A. SmartStar will enable a variety of new service rate structure options
12 for customers. These options can support dynamic pricing, which
13 targets peak reduction. Westar plans to initiate a pilot program to
14 test the effectiveness of a dynamic pricing rate structure for curbing
15 electricity demand during peak times to help customers allocate
16 resources more efficiently. This pilot rate initiative will be voluntary
17 for eligible customers. We pledge to work closely with Staff and its
18 consultant and with CURB to design a time of use rate.

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

22 A. Yes. Westar is considering pilot programs to test the effectiveness
23 of home energy management devices that enable customers to

1 track the energy use of individual items and control these items
2 either using their preferred manual settings or automated settings
3 based on things such as time of day or pricing signals. These
4 programs will also be voluntary.

5 **Q. HAVE YOU PARTICIPATED IN THE RATE DESIGN**
6 **WORKSHOPS SPONSORED BY THE KCC WHERE PILOT RATE**
7 **DESIGN AND APPROACHES HAVE BEEN DISCUSSED?**

8 A. Yes. Westar has been fully engaged in those workshops and
9 shared detailed information prepared for us by The Brattle Group at
10 one of them. We are very interested in collaborating closely with
11 Staff and CURB to develop pilot rate programs for our customers
12 and to discuss business practices improvements.

13 **Q. WILL THE SMARTSTAR PROJECT PROVIDE ANY BENEFITS**
14 **TO WESTAR'S BUSINESS CUSTOMERS?**

15 A, Yes. While the SmartStar energy dashboard will be first offered to
16 residential customers, we will be offering a business version of it
17 early next year. The business dashboard will include the kW
18 demand information along with energy and cost detail. It will also
19 include the budget alert and summary reporting convenience
20 features that our residential dashboard offers. This will provide our
21 business customers the ability to monitor their usage and identify
22 areas where they can make changes to help manage their energy
23 costs.

1 **Q. WILL THIS BE NEW INFORMATION FOR THESE BUSINESS**
2 **CUSTOMERS?**

3 A. For the most part it will be. While some businesses may have
4 energy management tools, most do not, meaning they get their
5 monthly bill without much ability to monitor and adjust usage during
6 a billing period. With the dashboard that situation can change,
7 enabling easy access to energy use and cost information
8 throughout a billing period. This could result in an opportunity for
9 our business customers to take more profit to the bottom line.
10 Going forward, we are very interested in working with our business
11 customers to identify how we can refine demand and usage
12 information available so we can deliver the most value to them and
13 help with their business success.

14 **Q. IS THE SMALL TO MID-SIZE BUSINESS SECTOR A LARGE**
15 **NUMBER OF CUSTOMERS FOR WESTAR?**

16 A. Yes. In fact, it is the next largest group of customers following
17 residential customers. It is difficult for many of these customers to
18 take the time or make the investment for equipment to closely
19 monitor their energy usage. We can make that easier for them with
20 the SmartStar energy dashboard.

21 **Q. WILL THE INFORMATION AVAILABLE THROUGH THE**
22 **SMARTSTAR PROJECT HELP WITH BUSINESS**
23 **DEVELOPMENT IN WESTAR'S SERVICE TERRITORY?**

1 A. Absolutely. For existing businesses the ability to better manage
2 energy use and cost can mean more cash available for growing the
3 company. For new business development, knowing that Westar's
4 service includes the energy dashboard is yet another benefit to
5 include in the local economic development recruitment package.

6 **Q. WILL CUSTOMERS WHO ARE OUTSIDE THE SMARTSTAR**
7 **PROJECT AREA OR CHOOSE NOT TO USE THE NEW**
8 **ENERGY DASHBOARD EXPERIENCE BENEFITS?**

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

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

1 In regard to technology enhancements, approximately \$26
2 million of the \$42 million project cost is for technology infrastructure
3 upgrades. These upgrades will serve all Westar customers and
4 include an advanced outage management system, a customer web
5 portal and an improved meter data management system. While it is
6 true that there are specific benefits to customers with smart meters,
7 improved system operations such as enhanced outage restoration
8 and customer access to information will benefit all customers, even
9 before they receive an AMI meter.

10 For project area customers, advanced metering itself offers
11 remote meter reading, remote turn on and turn off capabilities
12 (which we will explore using for standard orders such as a college
13 rush period), voltage reporting and both momentary and sustained
14 outage reporting.

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

1 Material areas of assumption include the ability to handle
2 more service work remotely, such as meter reads on succession
3 orders or standard service turn on or turn off (this does not include
4 non-payment orders). This will prevent deploying a vehicle and the
5 expense of sending a service person to a location. Meter reading
6 will be done with an automatic wireless process and estimated
7 meter readings should be substantially reduced with the smart grid.
8 This will reduce most meter reading expense and result in a more
9 accurate billing.

10 **Q. WHEN DO YOU ANTICIPATE MAKING A DECISION**
11 **REGARDING FURTHER SMART GRID DEPLOYMENT IN THE**
12 **WESTAR SERVICE TERRITORY?**

13 A. We have no predetermined date to make that decision. Instead, we
14 will utilize the information gained from the SmartStar Lawrence
15 project in conjunction with Westar financial performance and other
16 external factors to determine the right approach. SmartStar
17 Lawrence will provide the basis for making a sound, informed
18 decision. Our interest will be to properly balance costs and
19 benefits, both the benefits customers realize through their own
20 choices and actions to utilize the smart grid and operational
21 improvements and efficiencies, which customers may not even
22 perceive. Part of the analysis is taking into consideration the
23 relative geographic density of customers and the related costs.

1 Those factors must be taken into account as we roll out the
2 technology across a broader, more diverse and less geographically
3 dense service area. We will also consider the interests of our
4 investors.

5 D. *Regulatory Treatment for SmartStar*

6 **Q. HOW DO YOU PROPOSE THAT WESTAR'S COSTS RELATING**
7 **TO THE SMARTSTAR PROJECT BE TREATED IN THIS RATE**
8 **FILING?**

9 A. Westar filed for an Accounting Authority Order March 2, 2011 to
10 record and defer costs associated with the SmartStar project. That
11 filing is currently pending before the Commission. Should the
12 Commission grant Westar's request for an Accounting Authority
13 Order, then the cost relating to the SmartStar project included in
14 this rate filing should be removed from the revenue requirement as
15 discussed by Mr. Rohlfs.

16 **Q. HOW DID WESTAR ACCOUNT FOR THE FACT THAT SOME OF**
17 **THE COSTS HAVE BEEN REIMBURSED BY DOE?**

18 A. Mr. Rohlfs explains how the cost reimbursed by DOE is accounted
19 for in the rate filing. Our customers will not be paying for those
20 reimbursed costs in their rates and will be receiving the benefit from
21 DOE's grant.

22 **Q. THANK YOU.**

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

I. WESTAR'S ENERGY EFFICIENCY, CONSERVATION AND DSM PROGRAMS

Westar's energy efficiency, conservation and DSM 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. SimpleSavings (Docket No. 10-WSEE-775-TAR) – a program that enables qualified customers to repay approved energy efficiency upgrades to homes and small businesses on their Westar bill;
4. Energy Efficiency Education (Docket No. 09-WSEE-986-ACT) – an array of consumer venues for distributing energy efficiency information to influence behavior change; and
5. 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

II. DESCRIPTION OF THE WATTSAYER PROGRAM

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 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 enables customers to customize settings and curtail usage when asleep or away, potentially lowering energy costs up to 20 percent. The thermostat contains a communication chip that enables customers to access a free online program through which they can remotely change their thermostat settings from any computer with Internet access to accommodate sudden schedule changes and temperature shifts. 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 during a weekday, never a weekend or holiday. 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. For example, if based on fuel and purchased power costs in our Retail Energy Cost Adjustment clause, 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 and other considerations.

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 was left with the customer upon the initial WattSaver installation).

WattSaver became available to customers in September 2009. Westar has nearly 24,000 thermostats installed across its service territory, far exceeding conservative expectations of signing up 14,000 customers by 2011. In 2010, Westar had five cycling events for a total of 17.5 hours to decrease load on our system. We surveyed a group of our customers after last summer's cycling season and 72% of respondents were not aware we were cycling, which indicates that we were not intrusive to the customer. The programmable thermostat has also played a pivotal part in consumer conservation efforts undertaken through the Climate and Energy Project's innovative Take Charge Challenge, through which communities of comparable size compete for a \$100,000 Department of Energy prize for an energy efficiency initiative.

III. DESCRIPTION OF THE BUILDING OPERATOR CERTIFICATION PROGRAM, ITS PROGRESS AND ITS CURRENT STATUS

Westar offers to any building operator employed by one of our commercial or industrial customers the opportunity to participate in the Building Operator Certification (BOC) program. The BOC program is a licensed program offered through the Midwest Energy Efficiency Alliance (MEAA). MEAA 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 reducing system peak load (through coincidental peak reductions) to help defer the need for additional capacity.

The BOC program is a nationally recognized competency-based training and certification program for building operators who are responsible for the day-to-day

maintenance and operation of commercial and industrial buildings and charged with making them more energy efficient. 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 program 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 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 and access to the expertise of not only their fellow classmates but the entire BOC network of participants, experts, and resources to leverage for troubleshooting, best practices and advice.

Participants pay program tuition fees directly to MEAA 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 six Level I courses and one Level II course. Three Level I courses and one Level II course are in progress. Out of 118 Level I participants, 116 successfully completed the program. All 16 Level II course participants completed the program, bringing total certifications with

both courses to 132 as of August 1, 2011. We co-sponsored one course with Midwest Energy, Inc. (Midwest) and one course with Empire District Electric Company (Empire).

We also worked with the Kansas Department of Commerce to obtain a \$69,000 grant so we could make it more financially feasible for customers to participate. The funds enable us to provide \$575 to 120 participants to help defray costs. As of August 1, 2011, we have provided subsidies to 93 individuals. We believe strongly in the merits of the program and facilitated the expansion of the BOC statewide license to include not only Westar, KCP&L and Midwest, but also the Kansas Energy Office (KEO), Empire, Kansas Electrical Cooperatives and state municipal utilities. Through these efforts, all Kansas building operators have the opportunity to participate in this nationally recognized program.

As an additional incentive, KEO has provided \$85,000 in funding to reimburse the first 50 rural electric cooperative and municipal customers to participate with a \$1,700 rebate. This funding would pay for the training coordination fee that other utilities are required to pay Westar when operators in their territory attend our training, further extending the state's network of certified operators and building upon best practices in the industry.

IV. DESCRIPTION OF THE SIMPLESAVINGS PROGRAM

On January 31, 2011, the Commission approved Westar's partnership with Efficiency Kansas and the creation of Westar's SimpleSavings program. Westar's SimpleSavings program is a meter-based revolving loan program offered to qualifying customers in collaboration with Efficiency Kansas, a program developed by the KEO. Under the program, customers can obtain interest-free loans from the KEO to make

energy efficiency upgrades to homes and small commercial businesses. Customers repay the loans on their Westar utility bills. Loans through the SimpleSavings program are funded by the America Reinvestment and Recovery Act (ARRA).

The KEO recently announced that it would redirect the majority of its ARRA funding to other energy-related projects. This redirection of funds will affect Westar's ability to continue the SimpleSavings program as it was originally intended. However, Efficiency Kansas representatives have indicated that they are looking for funding alternatives to enable participants to economically pay for energy efficiency upgrades. If funding is secured, then Westar's SimpleSavings program will be resumed.

Efficiency Kansas is designed to:

1. Produce cost-effective, firm energy savings,
2. Address efficiency improvements in a comprehensive whole house 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.

From January 31 to July 29, 2011, Westar used commercially reasonable efforts to identify homes needing energy efficiency improvements in compliance with the approved SimpleSavings Program Rider and the Program Manual of the Efficiency Kansas revolving loan program.

Westar facilitated the opportunity provided to customers under the SimpleSavings program by arranging for the financing of energy efficiency

improvements and collecting the obligations to the funding providers incurred by participants. The only upfront cost to the participating customer was the initial cost of the Efficiency Kansas audit performed on the home or business. In order to perpetuate this program for the benefit of future users, recipients of the funds were required to repay them. The investment is paid back through a charge on the customer's monthly utility bill that will not exceed 90% of the total estimated energy savings associated with the efficiency improvements. The program is designed to stimulate the local economy by helping consumers save money on their utility bills and provide revenue for local contractors, thus keeping the ARRA stimulus funds in Kansas.

To announce the SimpleSavings program, Westar's energy efficiency staff hosted open houses with Efficiency Kansas staff and auditors invited to participate in Topeka and Wichita, sent two news releases widely picked up throughout the service territory, sent information to online billing customers, created a brochure and bill insert for all customers, promoted the program in the Westar Efficiency online newsletter, made presentations to community groups, hosted two breakfasts for Efficiency Kansas auditors to explain Westar's participation, and highlighted the program at spring home shows with a SimpleSavings magazine wrap accompanying an Efficiency Kansas booklet with comprehensive information about the program. Westar's energy efficiency staff also hosted a third open house in Colwich, a community we worked with in 2009 to influence behavioral change regarding energy consumption.

We are firm believers in the advantages of having a professional energy audit to learn more about steps that customers can take not only to add insulation, address air leaks and replace outdated heating and cooling equipment, but also to make easy and

inexpensive improvements to caulk windows and seal holes around wiring to save energy. To that end, we are considering options that would allow us to sustain a home energy audit program for residential customers to help them conserve energy and improve comfort without the ARRA funding.

Below are statistics outlining the program's initial reception and participation since KCC approval January 31, 2011, through July 27, 2011:

Inquiries: 736 program inquiries;

Audits: 900 audits performed in Westar territory;

Meter Obligation Agreements Signed: 236 signed; and

Approved Projects: 87 loans totaling \$613,013.64

V. DESCRIPTION OF WESTAR'S APPROACH TO ITS ENERGY EFFICIENCY EDUCATION PROGRAMS

Comfort, convenience, connection – these are the elements we provide to our customers through the safe, reliable delivery of electricity. Electricity powers our customers' way of life, from keeping their food refrigerated and their homes cool in the summer to facilitating Facebook exchanges and family movie nights. The demand for electricity continues to increase as new products from e-readers to electric cars enter the marketplace. Innovative technologies proliferate at an unprecedented pace. To help manage demand, we have developed several educational programs to help consumers use energy wisely. Collaboration and cooperation will help postpone the need for additional power plants and help preserve the environment. By providing customers with tips and tools to initiate behavior changes, we can establish a strong foundation for other energy efficiency and demand side management programs.

Although most of us have a pretty accurate sense of how long a foot is or about how much water is in a cup, relatively few have a good sense of what a kilowatt-hour (kWh) is, or what distinguishes a kilowatt (kW) from a kWh. Hence, one area of emphasis we are focusing on in 2011 with our messaging is the value that customers receive for the electricity they use to make their lives run more smoothly. The production and delivery of safe, reliable electricity is at the heart of everything we do at Westar. As Westar customers ourselves, we know how important electricity is to our quality of life and also how easy it is to take for granted the seeming magic of flipping on a switch and having light, hot coffee, or an Internet connection whenever they are desired. Customers who buy and experience tangible products often do not consider that their purchases of appliances, smart phones, and entertainment devices increase demand for electricity. When blowing their hair dry in the morning or watching a basketball game or checking email at night, most do not consider that those routine actions are backed by an expansive and intricate 24/7 infrastructure of power plants, wind farms and service centers supported by a cadre of other professionals doing whatever it takes to keep their lights on.

Our goal is to use common applications and plain language in a variety of venues to explain that at approximately 10 cents per kWh for residential customers, electricity is a bargain. For example, most customers understandably expect to pay more than 32 cents for a pack of gum or a bottle of water that will provide fleeting satisfaction, yet many do not realize that the same 32 cents can do all of the following: operate their garage door opener for a month, light three rooms in their home for 10 hours, wash a load of laundry, or power their DVD player for an hour. As the demand for safe, reliable

electricity continues to climb, reinforcing both the value of electricity and the relevance of using it wisely will be at the forefront of our energy efficiency educational efforts.

Westar's education programs include the following:

Energy Efficiency for Education, recently renamed Powerpedia

We designed a program for students K-12 to raise energy conservation awareness and provide age-appropriate tips for how they can save energy by replacing incandescent bulbs with compact fluorescent lamps, taking shorter showers and understanding phantom load. Trained representatives present information that meets state education standards to complement teachers' lesson plans. For example, students from kindergarten through fourth grade receive a diary with stickers to place on each weekday as they take actions that save energy. A Disney Lion King DVD supplements the lecture by emphasizing the importance of conservation in an engaging, elementary format, and a "vampire" house with magnetized stickers enables students to identify energy-wasting activities in the home (i.e., a television on with no one watching, lights and ceiling fans left on in empty rooms). Students in grades five through 12 perform a comprehensive energy assessment of their homes, looking at items such as window orientation and number of panes, age of heating and cooling equipment, duct work and thermostat settings. Older students watch an educational DVD that explores either energy-efficiency measures or electricity production at Jeffrey Energy Center. They also engage in hands-on learning opportunities, such as a hand crank generator that powers an incandescent bulb, a CFL and an LED light. Every student also receives a kit with information that can be shared with their parents and appropriate promotional

items (i.e., a shower timer, an LED nightlight, stickers for placement on game consoles and other gadgets).

Since the education program's inception in August 2009, through August 1, 2011, the program has reached more than 14,500 students. Program participation continues at a steady rate and counts toward Take Charge Challenge points for communities participating in a Climate and Energy Project initiative as discussed below. In fact, the school program's substance and execution have garnered accolades from the Edison Electric Institute, which has recommended it as a model to other utilities. Based on an EEI referral, Georgia Power recently contacted the Energy Efficiency Department to express interest in adopting the program for its customers.

Speakers' Bureau

We designed this program regarding the efficient use of energy to reach community and civic groups made up of our customers. It is similar to the Energy Efficiency for Education (Powerpedia) program in that our employees make presentations and provide information to the groups. The presentations include discussion points on how energy is produced, plus a variety of low-cost, no-cost ways to save energy, such as installing WattSaver programmable thermostats, obtaining professional energy audits, and switching incandescent bulbs to compact fluorescent lamps. Specialized versions of the presentation have been turned into classes for first-time homebuyers and homeowners interested in do-it-yourself projects to improve energy efficiency. From August 2009 to August 1, 2011, we have reached more than 7,800 people through about 200 community presentations. We continue to refine and tailor material for various audiences, from Rotary Clubs and workplace forums to retiree

groups and neighborhood associations, to enhance understanding and encourage behavioral change.

Real Estate Professional Certification Courses

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. This class has been offered 15 times, resulting in the certification of 229 realtors and appraisers.

Do-It-Yourself Home Energy Audit Classes, recently renamed Home Energy Savings Workshops

Westar offers Home Energy Savings Workshops to provide homeowners with practical, easy-to-implement ideas to reduce energy consumption. From January 2010, through August 1, 2011, 11 classes drew 291 participants. We are planning five additional classes in 2011 in Fort Scott, Lawrence, Manhattan, Topeka and Wichita.

Home Shows and Community Booths

Each spring communities throughout our service territory host home shows to inform customers about the latest construction and remodeling innovations to help them maximize their home's appearance, comfort, and value. Realizing that many of the people who attend these shows are our customers, we began staffing an informational booth to distribute energy efficiency and environmental awareness messages through these venues. Visitors to the Westar booth can obtain information about heat pumps, the WattSaver programmable thermostat program, SimpleSavings and compact fluorescent lamps (including a display that showcases different applications) and ask questions. We are frequently asked to participate in community events throughout the

service territory to share information about Westar's energy efficiency programs. These opportunities include Earth Day celebrations, environmental initiatives, and open house events, along with academic, energy and housing conferences. We have a strong presence at the Kansas State Fair each year and seek additional venues to promote messaging and provide information that our customers can use to impact their energy consumption and expense. Since August 2009, we have staffed 134 home shows and community booths, reaching more than 44,000 attendees.

“Save a Watt, Save a Lot”

We initiated this program in our own facilities through the distribution of fliers to encourage employees to take steps to save energy at work. The principles, equally applicable to our customers, 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 to educate them about saving energy at home too. We have taken a scaled-down version of our trade show booth to all our company locations to maintain awareness of energy efficiency.

Take Charge Challenge Community Events

Westar is among partner utilities assisting with the Climate and Energy Project's competition among Kansas communities to encourage energy efficiency. Through this program, which has garnered national media attention for its grassroots approach and successful energy consumption reduction, communities compete for a \$100,000 Department of Energy prize. In 2010, Westar worked with Salina. In 2011, Westar is participating in Take Charge Challenge initiatives in five Kansas communities: Fort

Scott, Lawrence, Manhattan, Parsons and Pittsburg. Westar is extensively involved in the challenge activities. Westar provides liaisons to serve on each community's Leadership Team, promotes and tracks WattSaver programmable thermostats, promotes Westar's SimpleSavings program in conjunction with Efficiency Kansas, and provides educational presentations to schools and community and civic groups, Home Energy Savings Workshops, real estate certification classes and targeted participation at other tailored events to promote the challenge.

Multimedia Education

We use mass media, such as the Internet and direct mail, to reach larger audiences with energy efficiency educational messages. The Westar EfficiencyWorks newsletter, Facebook postings and direct mail campaigns also have been used to reach consumers with key messages. Westar works with Apogee Interactive Inc. to provide online calculators that enable customers to determine how behavioral habits and subsequent changes can dramatically affect their energy consumption. Apogee provides reports that enable us to review the areas that are of most interest to our customers so we can better address their needs. Below are statistics highlighting traffic specific to energy efficiency news and initiatives.

October 2006 to July 2011

Visits – 477,912

Page Views – 2,919,589

Page Views Per Visit – 5.96

Time Spent Per Visit – 3:37

Downloads – 8,367

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. Direct mail will also be an integral component of our SimpleSavings marketing efforts to make sure customers who live in neighborhoods presumed to be the least energy efficient because of the housing stock's age and typical construction methods used during the time period (i.e., insufficient insulation) are aware of the opportunity to invest in energy efficient upgrades and pay them back through their utility bill.

Brochures, Bill Inserts and Promotional Items

All of Westar's programs rely on the production and distribution of brochures and other material, including promotional items such as a CFL or other appropriate item(s), to educate consumers how to use energy efficiently. In addition, the educational programs provide consumers of all ages with information on how using energy efficiently can promote conservation and cost savings.

VI. DESCRIPTION OF WESTAR'S ENERGY EFFICIENCY DEMAND RESPONSE PROGRAM RIDER

Westar's Energy Efficiency Demand Response 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. These interruptible service programs are discussed in more detail below.

The demand response 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 program participants 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. Westar has initiated curtailment once so far in 2011, as a result of a localized system condition involving failure of transmission system equipment.

The transmission event is a good example to illustrate the benefit of this rider. We called on the customer when a transmission line suddenly went out of service, resulting in an overload situation on another transmission line. Westar reduced generation production at the Gordon Evans station by 50 MWs to relieve the situation. Even with this reduction in generation, the transmission line was still slightly overloaded. A subsequent transmission issue could have resulted in the overload of multiple lines serving the Wichita area. To minimize the possible contingency, Westar asked the customer on the EE DR rider to curtail its load by 50 MWs.

**VII. OTHER ENERGY EFFICIENCY PROGRAMS BEING REVIEWED BY WESTAR
– APPLIANCE RECYCLING PROGRAM**

The Appliance Recycling Program would provide participating customers with monetary incentives and free removal of their old working refrigerators and freezers. By retiring inefficient appliances, customers decrease their energy consumption and save on their monthly electric bills, thereby eliminating the short-term need for Westar to build new power plants. This program not only saves energy but also helps protect the environment through the reduction of potent greenhouse gasses like refrigerants and foam blowing agents, which are either reclaimed or destroyed.

VIII. PROGRAMS TO EDUCATE HVAC PROFESSIONALS AND BUILDERS

Westar has 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, Westar provides financial incentives, brochures and other educational materials that these trade allies can use when educating consumers about heat pumps, lighting, insulation and related matters.

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.

**IX. WESTAR'S PROGRAMS OR POLICIES IN PLACE TO "LEAD BY EXAMPLE"
FOR ENERGY EFFICIENCY**

As mentioned above, Westar's "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.

Westar's 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. 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.

As federal laws and retail product lines change, many consumers are finding purchasing new light bulbs takes more forethought than in the past. Our lighting program and accompanying literature have 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 building a new office facility or making major renovations to an existing office space. LEED is also referred to as "Green Building Rating" and designates state-of-the-art applications in energy efficient, environmentally sound construction. One of Westar's leadership examples in this area is the renovation and expansion of the Lawrence Service Center, which earned LEED Silver certification.

Westar's operations leadership continues to identify projects to improve system efficiency. For example, in 2010, Westar completed a transmission 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.

The Consumer Services division of the Energy Efficiency Department is implementing a new electronic gadget testing program this year using staff volunteers to test new products in the marketplace that can facilitate energy savings, such as charging grids for cell phones. Findings initially will be reported in Synergy, the employee newsletter, and eventually posted to the EfficiencyWorks online newsletter in an effort to increase awareness about emerging developments in the field.

The EfficiencyWorks online newsletter frequently includes first-hand staff accounts of energy saving measures they have implemented to encourage readers to follow suit.