BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

In the Matter of Compliance Filings by Kansas City Power & Light Company, Westar Energy, Inc., Kansas Gas and Electric Company and Evergy, Inc. Pursuant to the Commission's Order in Docket No. 18-KCPE-095-MER.	))))))	Docket No. 19-KCPE-053-CPL

NOTICE OF RATE STUDY FILING

COME NOW Kansas City Power & Light Company ("KCP&L"), Westar Energy, Inc. and Kansas Gas and Electric Company ("KG&E") (collectively referred to herein as "Westar"; and all collectively referred to herein as "Companies"), and submit this Notice of Rate Study Filing ("Rate Study"), in accordance with the Order of the State Corporation Commission of the State of Kansas ("Commission") issued in Docket No. 18-KCPE-095-MER ("18-095 Docket") on May 24, 2018 ("Merger Order"). In its Merger Order the Commission approved the Non-Unanimous Settlement Agreement submitted on March 7, 2018, by certain parties to the 18-095 Docket ("Settlement Agreement").

1. Paragraph 9 (on pages 4 and 5) of the Settlement Agreement included a provision that "...Applicants and Staff have decided to conduct a review (either jointly or individually) to identify the major differences between surrounding states' rates and the Applicants' rates in order to better understand and document the major contributors to any differences." Attached as **Exhibit A** is the *Kansas Rate Study* prepared by KCP&L and Westar.

WHEREFORE, the Companies respectfully request that the Commission take notice of the *Kansas Rate Study* prepared by KCP&L and Westar and submitted herewith.

Respectfully submitted,

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VERIFICATION

STATE OF MISSOURI)
) ss
COUNTY OF JACKSON)

The undersigned, Darrin R. Ives, upon oath first duly sworn, states that he is the Vice President of Regulatory Affairs of KCP&L and Westar, that he has reviewed the foregoing pleading, that he is familiar with the contents thereof, and that the statements contained therein are true and correct to the best of his knowledge and belief.

Darrin R. Ives
Vice President, Regulatory Affairs

Subscribed and sworn to before me this 14th day of January, 2019.

Notary Public

My appointment expires: 4/26/2021

ANTHONY R WESTENKIRCHNER
Notary Public, Notary Seal
State of Missouri
Platte County
Commission # 17279952
My Commission Expires April 26, 2021

CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that a true and correct copy of the above was electronically served, hand-delivered or mailed, postage prepaid, this 14th day of January 2019 to:

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/s/ Robert J. Hack
Robert J. Hack

Kansas Rate Study

Prepared by Westar Energy & Kansas City Power & Light Company

January 2019

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List of Exhibits

1. Executive Summary

General Summary of Key Findings

Following decades of flat to declining rates, Kansas City Power & Light ("KCP&L")[1] and Westar Energy ("Westar") in the mid-to-late 2000s began making significant investments in infrastructure in response to increasing demand forecasts, environmental mandates, a need for enhanced reliability and renewable energy requirements. This investment—coupled with changes in customer demand and monumental shifts in energy markets (e.g. the shale gas revolution, the rapid advance of wind energy, and the establishment of a regional energy market)—produced rate increases in Kansas over the last decade that have been higher than the neighboring states included in this study.

While there are many complex contributing factors, the simple explanation for the position of current rates at KCP&L and Westar rests on the confluence of the following forces:

a) large amounts of coal capacity requiring additional emissions controls as well as new regional coal baseload generation investment by KCP&L,

b) flat to reduced customer demand for electricity,

c) a large influx of wind generation, some of which was associated with state policy requirements but supported by tax credits that essentially displaced coal,

d) transmission investment to connect new resources to load and increase service reliability, and

e) the rapid and sustained drop in natural gas prices spurred by the shale gas revolution that eroded much of the coal energy generation cost advantage over natural gas, resulting in a larger impact on KCP&L and Westar relative to other states with a higher concentration of gas generation.

As a result of these largely uncontrollable events, Kansas rates, which were among the lowest in the study in 2007, are now above the study group average. In total, federal environmental mandates, FERC regulated transmission, and changes in fuel expenses are responsible for approximately 60% of the increases Westar and KCP&L customers have seen during the past 10 years. Although rates at KCP&L and Westar are currently slightly above the study group average, it is important to note that the companies reduced retail rates in 2018 and will not raise base rates before December 2023. This protection is not in place at other utilities, and some utilities in neighboring states face upward rate pressures due to the lack of emissions controls on coal generation units. Beyond the forces listed above, KCP&L and Westar have invested in grid modernization with the deployment of AMI meters and an updated Customer Information System deployed by KCP&L.

[1] Kansas City Power & Light is an integrated, regulated electric utility that provides electricity to customers in the states of Missouri and Kansas. This study uses the abbreviation KCP&L-KS to reference rates that are specific to Kansas customers based on allocated shares of the total company cost.

Background, Purpose, Scope, and Conclusion

On June 4, 2018, Westar Energy and Great Plains Energy (then the parent company of KCP&L) completed a merger to become Evergy. Per paragraph 9 of the Non-Unanimous Settlement Agreement in the Westar and KCP&L Merger, Docket No. 18-KCPE-095-MER, *"Applicants and Staff have decided to conduct a review (either jointly or individually) to identify the major differences between surrounding states' rates and the Applicants' rates in order to better understand and document the major contributors to any differences."* KCP&L and Westar have conducted their review, and this report presents the results of the review. For transparency, the supporting data are taken from publicly available sources, where available. Primary information sources include the Federal Energy Regulatory Commission (FERC), the U.S. Energy Information Administration (EIA), and the U.S. Environmental Protection Agency (EPA), either through direct access or through a data service provided by SNL Financial, (also known by S&P Global Market Intelligence, a division of S&P Global).

For purposes of rate comparison, the study includes all investor-owned, vertically integrated utilities in Kansas and the surrounding states of Missouri, Oklahoma, Colorado, Iowa, Minnesota, North Dakota, South Dakota, Arkansas and Texas. This selection results in a total of thirty-five retail electricity providers serving over 11.1 million customers in 2017, or an average of 317,000 customers per utility. The customer base by utility ranges from a low of 86 to a high of over 1.4 million, with KCP&L serving 254,000 Kansas customers and Westar serving 707,000 Kansas customers.

The retail electric sales, or customer usage, for the combined group is spread evenly across customer classes with 31% residential, 37% commercial, and 31% industrial. However, the sales mix at the individual utility level varies greatly, with residential sales ranging from 11% to 67% of total volume, commercial sales from 14% to 73%, and industrial sales from 0% to 74%. Westar's sales mix is somewhat evenly distributed among the customer classes at 32% residential, 39% commercial and 29% industrial. However, KCP&L-KS is heavily concentrated in residential (43%) and commercial (52%) with a small component industrial (5%). As the data illustrates, companies with higher concentrations of industrial customers having high annual volumes tend to have lower average retail electricity prices. This is also reflected in the data when comparing KCP&L-KS and Westar. KCP&L-KS and Westar have both been impacted by the same factors influencing rates, but KCPL&L-KS has a higher concentration of residential and commercial sales. As such, KCP&L-KS rates are slightly higher than Westar rates.

Following decades of flat to declining rates, KCP&L and Westar in the mid-to-late 2000s began making significant investments in infrastructure. As a result, Kansas rates, which were among the lowest in the study in 2007, are now slightly above the study group average and in line with the national average. While no longer offering a considerable competitive advantage, electric rates in Kansas are not a detriment to economic activity or development. In 2007, KCP&L-KS had an average retail price of 6.74 cents per kWh, and the Westar price was 6.03 cents per kWh. Both prices were below the average retail price of 7.21 cents/kWh for the study group, which had a range from 5.24 to 13.07 cents per kWh. In 2017, the average retail price was 11.84 cents

per kWh for KCP&L-KS and 10.32 cents per kWh for Westar. The average for the study group was 9.35 cents per kWh, with a range from 6.03 to 14.33 cents per kWh.

Acknowledging this development, this rate study focuses on the 2007-2017 period to explain the factors contributing to the price increases. However, from an historical perspective, it is important to note that viewed over a longer timeframe—dating back to the late 1980s and early 1990s—there was an extended period of flat to declining rates at Westar and KCP&L, providing a benefit to customers in relation to general inflation. The increase in Kansas rates over this extended period is lower than the general rate of inflation as measured by the Consumer Price Index. As the Exhibits 2 and 3 show, Westar rates leading up to the study period (1992 – 2007) increased almost 34% less than the Consumer Price Index (CPI), while KCP&L rates leading up to the study period (1998 – 2007) increased 43% less. Significantly contributing to this Kansas cost advantage was low and stable priced coal generation while other states were much more dependent on higher cost natural gas generation. Following large investments and much lower natural gas prices, Kansas rates are now only in line with the national average. Even including the study period, both Westar (1992 – 2017) and KCP&L (1988 – 2017) customers have still seen their rates go up by 3% less and 13% less than CPI as shown in Exhibits 8 and 9 below.

From 2007 through 2017, both KCP&L and Westar invested heavily in power production assets, which account for 68% of KCP&L's increase in net plant and 58% of Westar's. At KCP&L, the Commission-approved Comprehensive Energy Plan (CEP) brought a new state-of-the-art regional coal unit into service and produced major environmental retrofits at existing coal units. At Westar, major environmental retrofits were conducted at existing coal units, new natural gas-fired generation was added, and significant additions were made to the transmission system. Additionally, both companies made initial investments in Kansas wind generation.

Over the period 2007 through 2017, KCP&L's increase in net plant was 32% higher and Westar's was 53% higher than the average for the companies in the study, when computed on a dollar-per-MWh of retail sales. The companies' heavy concentration of coal capacity is a major factor in both the historically low prices leading up to the 2007–2017 period and these more recent increases. Many utilities in neighboring states have a large percentage of their generation capacity from natural gas, which has benefitted from fuel cost decreases with the increase in accessible shale gas reserves. Where KCP&L and Westar's major investments in emissions controls are complete and already reflected in rates, with no large generation investment expected in the foreseeable future, there are utilities in the study that have large shares of coal capacity that have not been retrofitted. While predicting the future of these plants is beyond the scope of this study, there could be potentially large investments related to these assets through the installation of environmental controls, or retirement and replacement with new generating plants (e.g., Oklahoma Gas & Electric's five-year $3 billion capital plan, announced in late 2018, includes $542 million to retrofit two coal plants to be compliant with federal environmental mandates).

Additionally, the significant increase in net plant at KCP&L and Westar has been accompanied by major shifts in customer demand and electricity production that have contributed to relatively higher rate increases in Kansas. Overall retail sales for the utilities in this study decreased by 0.7% in 2017 versus 2007. Comparatively, KCP&L-KS was saw retail sales decrease 5.5% and

Westar was down 4.1% in 2017 versus 2007. Had both utilities experienced a modest level of growth of 1.5% annually over the ten-year period, more consistent with historical growth trends, current rates would be about 20% lower than today. This is due to the combination of higher revenue and the additional sales volumes to recover fixed costs.

This relatively larger reduction in demand was accompanied in Kansas by a shift from coal to wind generation. Where Kansas generated 72% of its electricity from coal in 2007, the volume was down to 38% in 2017. This 34% reduction in coal-based generation was replaced almost entirely by wind, which saw its share of production rise from 2% in 2007 to 36% in 2017. As a result, KCP&L and Westar coal net capacity factors, which were in the mid-70% range in 2007, are now in the mid-50% range. In addition to the lower production volumes from coal-based generation, wholesale sales margins that formerly helped to offset other costs, have since eroded with recent market conditions.

While KCP&L and Westar rates are currently higher than some of the peer companies in the study, it is important to highlight that with the recent merger, the two companies are well positioned to bring rate stability and more competitive rates for Kansas customers for the foreseeable future. Recent rate cases, which included customer bill credits, have resulted in lowering customer rates due to merger savings and federal Tax Cuts & Jobs Act savings. The companies have agreed to not raise base rates for a five-year period that ends in December 2023. Future merger savings are also expected to significantly mitigate increases at the end of the five-year period. In addition, both Westar and KCP&L currently project capital investment levels below that of most of their peers. These long-term rate moratoriums are unlikely for the other utilities in this study and there could be upward pressure on rates in some neighboring states.

2. Overview of Rate History

A. Overview of the regulatory construct and how rates are set in Kansas

As regulated utilities, KCP&L and Westar ("Companies") follow an established process determined by the state of Kansas to request changes in rates to keep them aligned with cost. The Kansas Corporation Commission ("KCC") oversees this process. The KCC's role, which is governed by Kansas Statute 66-101, is to ensure utility rates are just and reasonable while at the same time ensuring sufficient service is provided. Base rates are set on the full cost structure of the utility and can only be changed through a multi-month and formal rate adjustment procedure in front of the KCC that can take most of a year to complete. Riders are statutorily allowed or Commission authorized adjustments for specific items, like fuel expenditures and property taxes. These adjustments are outside of the traditional rate case process and take place more frequently to pass along both cost increases and reductions to customers. As reflected in the exhibit below, riders result in less frequent rate cases and ultimately lower base rates for customers.

Anytime a base rate adjustment is needed, the Companies must file a request and justification to the KCC, which then starts a process called a rate case to review and audit the request, and hear from other interested people and organizations typically referred to as intervenors. The

ratemaking process takes place in two steps. The first step is to determine a utility's revenue requirement – the calculation that determines the appropriate amount of revenue to collect from customers that allows the utility to recover its prudently incurred costs and provides for an opportunity to earn a KCC-authorized return on the equity required to finance investment in utility infrastructure (power plants, substations, poles, wire, etc.). The second step is to determine the appropriate rate structure that will allow for the equitable collection of the revenue requirement from each class of customer (e.g. residential, commercial, industrial, special contract customers).

The rules and processes for rate cases are well defined. The utility files an application with the KCC to change rates. In general, for the Companies to collect dollars from customers, the Companies must have already spent those dollars in the provision of service for customers, and the expenditures must have been prudently incurred, as well as used and useful. Since the dollars have already been spent, this is known as building a case on a historical test year. The rate review request includes the details for the proposal, prepared testimony, and supporting financial and operating data. The KCC requires certain minimum filing requirements in a rate case that often result in an initial filing that can exceed a thousand pages of schedules and supporting testimony.

The KCC is required by Kansas statute to make a decision within 240 days. During this time, the Commission Staff reviews the Companies' books and records as well as submits requests for additional information to aid in their investigation. After their audit, the Staff provides an opinion on the Companies' request and makes its own recommendation. Other interested or impacted parties—such as larger industrial customers or special interest groups, known as intervenors—typically request to participate in the review and file recommendations. The Citizens Utility Ratepayer Board ("CURB"), representing residential and small commercial customers as laid out in state statutes, reviews and participates in all rate review requests as well. After the reviews are completed and recommendations submitted, the Commission holds public and technical hearings to form the basis for their decision. In some cases, parties can come together to reach settlement on all or some of the issues in the case. The Commission can decide to accept, reject, or modify parts of any settlement agreement and decide remaining issues. A written order of the Commission's decision is then approved in a KCC open business meeting.

Kansas statutes, rules and regulations govern the ratemaking process. These provide the guidance on Commission rate case decisions, govern how rates can be set for utilities, and authorize collection of other specific costs that are less predictable and can be more volatile through riders that appear on customer bills. These riders go up and down to reflect actual cost savings and increases to customers on a timely basis and result in the need for fewer base rate increases. Examples include:

- Fuel Recovery Riders - KCP&L Energy Cost Adjustment ("ECA") and Westar Retail Energy Cost Adjustment ("RECA") were implemented as a result of KCC orders to allow for timely pass-through of changes in fuel and purchased power expenses.
- Property Tax Surcharge ("PTS") Rider – Kansas statutes provide for recovery of property tax changes using a rider and an annual review. *(K.S.A. 66-117(f))*

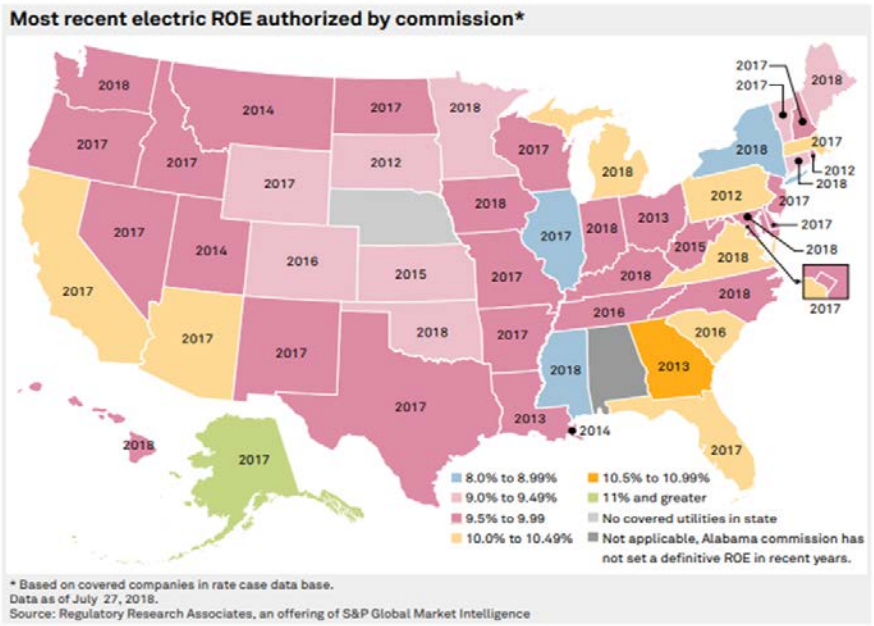
- Transmission Delivery Charge ("TDC") Rider - Kansas statutes provide for transmission-related cost recovery using a rider and an annual review. *(K.S.A. 66-1237)*
- Energy Efficiency Rider ("EER") – The KCC has approved by order the use of an EER for KCP&L and Westar to provide for recovery of energy efficiency programs that benefit customers using a rider and an annual review.

Although the ratemaking process of revenue requirement determination and rate design is essentially the same for regulated utilities in all other states, the influences of different statutes, rules and regulations in those states affect rates. For instance, legislative decisions on automatic cost recovery mechanisms—like surcharges, riders and trackers, which are separate from the base-rate setting process—vary widely by state regulatory jurisdictions. However, these mechanisms are not unique to Kansas as peer utilities in this study also have riders as a component of their rate structures. The determination of revenue requirement can also vary through the rules for adjustments to historical cost, taking into account different levels of known and measurable costs drivers. In Kansas, rates are set on a historical test year with updates for known and measurable items, but some jurisdictions use a forecasted test year, formula-based ratemaking, or even multi-year rate plans. Since rates are set on historical levels, by the time rates are set, the data can be as much as two years old. North Dakota is one jurisdiction in the study group that has moved to utilizing a forecasted test year.

One determination set by the Commission that impacts the revenue requirement of electric companies is the authorized Return on Equity ("ROE"), the only portion of the revenue requirement that a utility ultimately has the opportunity to earn and keep as profit. As Exhibit 1 below illustrates, Kansas has one of the lowest authorized ROEs for electric companies in the country. The Companies both currently have an authorized ROE of 9.3%, which is significantly below the 9.74% average ROE accorded electric utilities nationwide in cases decided during 2017.[2]

[2] Source: Regulatory Research Associates, an offering of S&P Global Market Intelligence

Exhibit 1 – Most Recent ROE Authorized by State Commissions



B. Long period of low rates for Kansas customers

Prior to 2007, KCP&L and Westar had relatively low and stable rates for many years. The average price for electricity was flat to declining from 1988 through 2007, as reflected in Exhibit 2 and Exhibit 3. These rates were reflective of adequate generating capacity, robust retail sales growth in the service territories and strong energy prices in the existing energy markets. These factors allowed for additional margin to offset increasing expenditures, eliminating a need for rate increases. In fact, both companies experienced rate decreases during this period. When compared to the movement in the Consumer Price Index (CPI), this period of flat and declining rates reflects a significant savings to customers. The CPI is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services that can be used as a measure of inflation. For KCP&L-KS, average prices moved 43% less than the CPI for the period 1988-2007, which follows the major expenditures for building Wolf Creek nuclear plant in the mid-1980s. For Westar, average prices moved 34% less than CPI from the 1992 merger of Kansas Gas & Electric ("KGE") and Kansas Power and Light ("KPL") through 2007.

Exhibit 2 – KCP&L-KS Average Price 1988-2007 Grew 43% Slower than Inflation

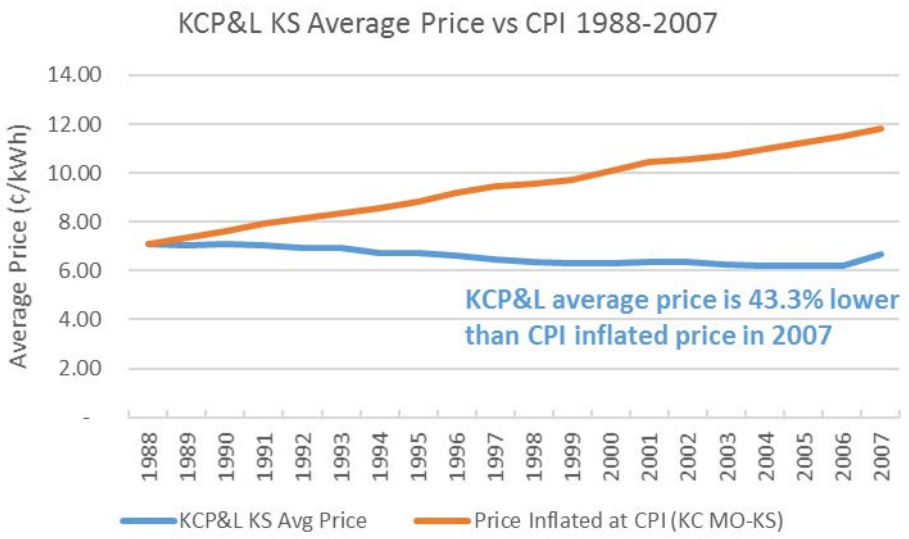
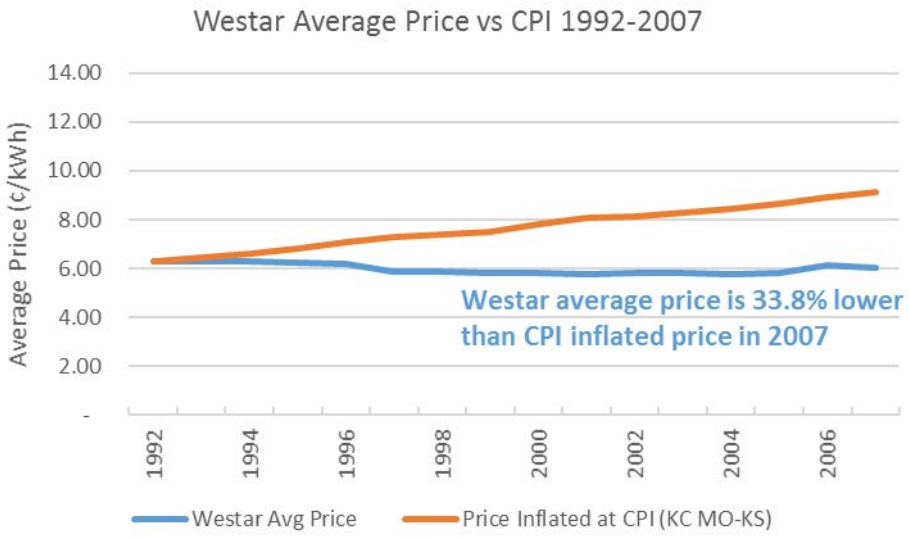


Exhibit 3 – Westar Average Price 1992-2007 Grew 34% Slower than Inflation



For many years, Kansas customers experienced stable prices after rates went into effect that captured investments from a significant generation build cycle. Because of the lumpiness of typical utility build cycles and large generation stations, investments in generation resources like Wolf Creek, Jeffrey Energy Center and the Iatan generating station in the mid-1980s tended to cause a spike in rates as these resources were put into rate base. However, this initial spike in rates was followed by a long period of rate stability. This period was driven by lower required investment levels, having completed a major building cycle, along with the ability to take advantage of stable coal and nuclear fuel prices. The benefits to Kansas customers from such

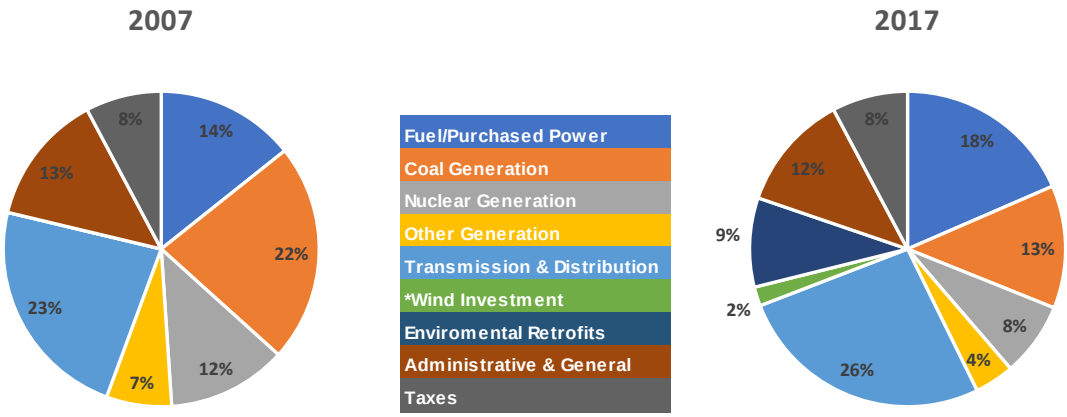
investments paved the way for the period of stable rates through 2007, until the next major investment cycle began.

C. Kansas rates have risen in recent years

Investments in cleaner coal production—driven by environmental regulations; renewables such as wind resources; and transmission projects to enable the growth of the state's renewable energy resources, and increase reliability and capacity in many areas—have driven the cost of service higher for both KCP&L and Westar Energy. This, combined with loss of revenue from selling available power to others in the wholesale markets, as well as declines in energy sales to our retail customers from 2007 to 2017, are the contributing factors to increases in rates. However, slower growth in A&G expenses, as compared to the peer group average, by Westar and reductions for KCP&L-KS due to the 2008 merger benefits of the Aquila and the recent Westar combination, has helped to mitigate increases. As a result, both KCP&L and Westar have had several rate increases over the past several years to recover the costs to serve customers. Exhibits 4 and 5 provide a breakdown of components that comprise Westar and KCP&L-KS rates in 2007 compared to 2017.

Exhibit 4 –Westar Rate Components

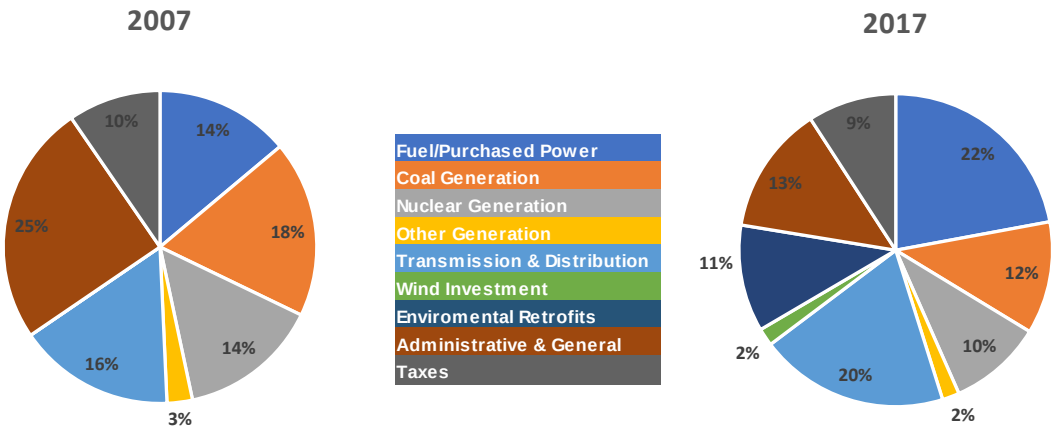
Components of Westar Rates 2007 & 2017



***Note: Wind investment refers to company-owned assets and does not include Power Purchase Agreements.**

Exhibit 5 –KCP&L-Kansas Rate Components

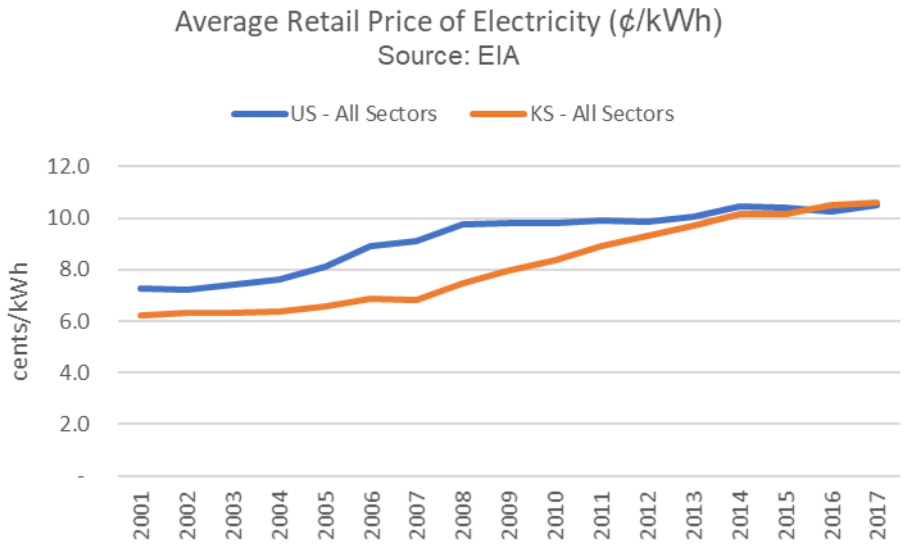
Components of KCP&L-Kansas Rates 2007 & 2017



***Note: Wind investment refers to company-owned assets and does not include Power Purchase Agreements.**

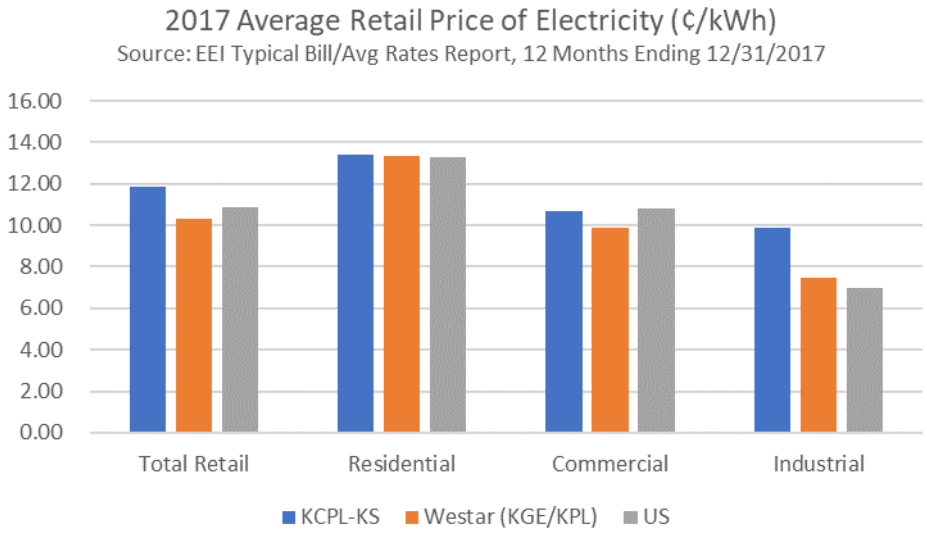
Following years of stable rates prior to the build cycle of the last ten years, Kansas rates are currently in line with the national average, as reflected in Exhibit 6. The averages presented below use EIA data, and include Investor Owned Utilities, municipals, and cooperatives.

Exhibit 6 – 2001-2017 Average Retail Price of Electricity, Kansas vs U.S.



KCP&L-KS is above the national average for total retail prices, while Westar is below the national average. As discussed below, a key driver for the KCP&L-KS result is due to a large concentration of residential and commercial customers and a corresponding smaller number of industrial customers with low usage that reflect the company's mostly suburban location. As detailed later in the report, KCP&L-KS has not only low total industrial volume but also the smallest average usage per industrial customer. KCP&L-KS's 26,000 kWh/month average per industrial customer is the lowest in the study group. The study group average is 960,000 kWh/month, with many utilities having industrial customers that use more than one million kWh per month. Westar's average industrial customer usage is much higher than KCP&L-KS's, but at 102,000 kWh/month, it is still significantly lower than the study group average. Exhibit 7 summarizes the company average prices by customer class.

Exhibit 7 – 2017 Average Retail Price of Electricity by Customer Sector, Kansas vs U.S.



D. Flat to declining rates followed by rate increases resulted in increases that are still substantially below inflation

Although outpacing other regional utilities, given higher investment costs and loss of asset-based sales revenue, rates for both utilities are still lower than inflation over the longer term that considers the previous build cycle. Adjusting for inflation using the CPI index, rates for KCP&L-KS and Westar are 13% and 3% lower than inflation, as depicted in Exhibits 8 and 9 below.

Exhibit 8 – KCP&L Kansas Average Price Has Grown 13% Less than Inflation, 1988-2017

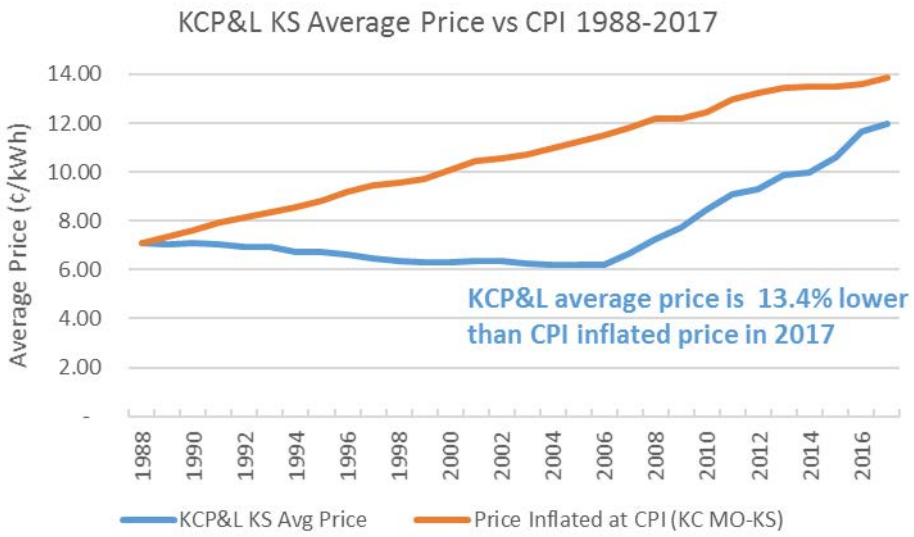
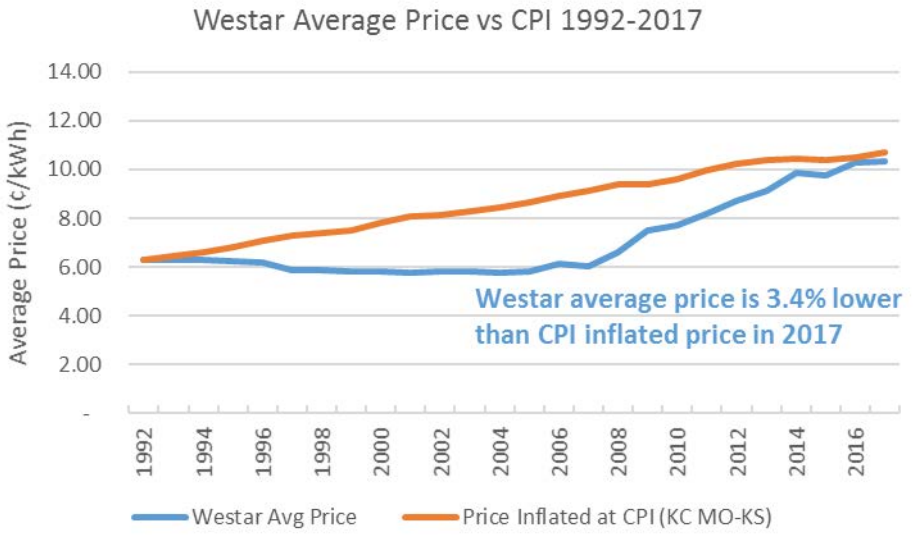
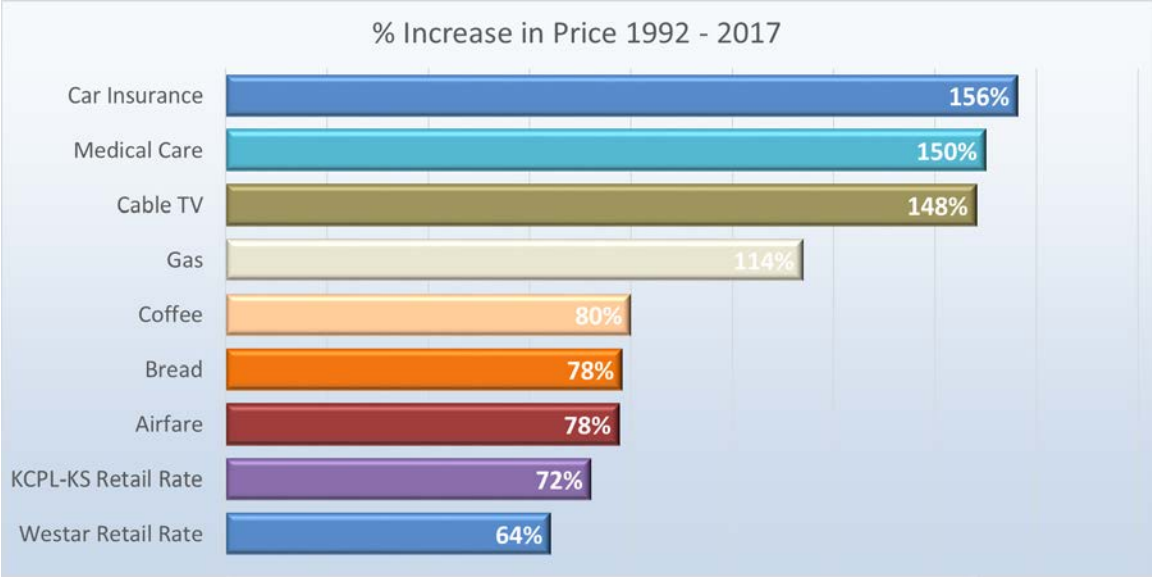


Exhibit 9 – Westar Average Price has Grown 3% Less than Inflation, 1992-2017



In fact, according to the Bureau of Labor Statistics, over the past 25 years, the prices for many items have increased at a higher rate than Kansas electricity prices. For example, car insurance has increased 156%, medical care has increased 150%, cable television is up 148%, and gasoline is higher by 114%. Exhibit 10 below illustrates how increases for these items, which are important to consumers, have substantially outpaced electricity price increases.

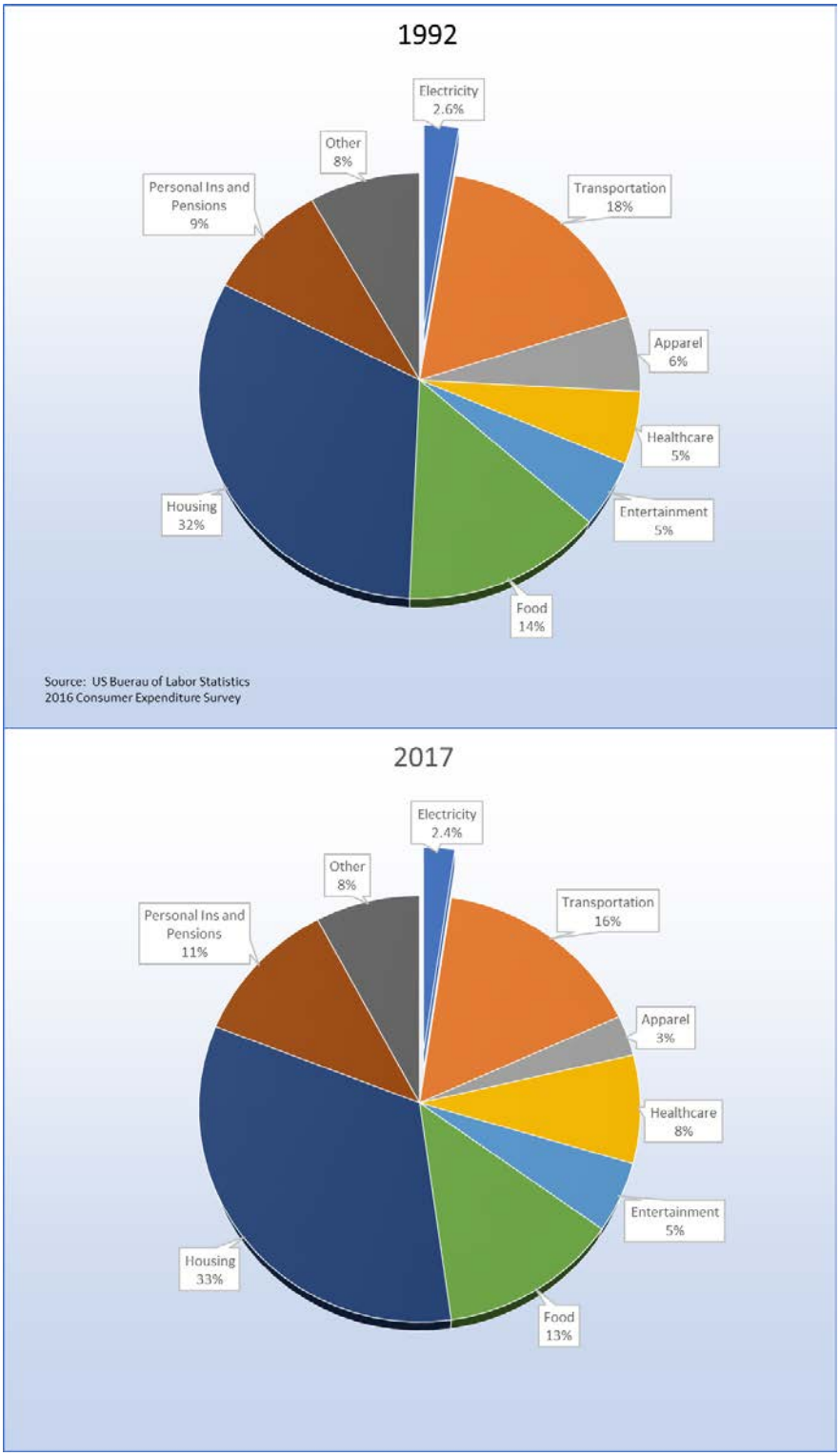
Exhibit 10 – 1992-2017 Kansas Electric Price Increase vs Other Consumer Goods and Services



Further perspective is provided in Exhibit 11 below, which shows the percentage of household expenditures for electricity compared to other household expenditures. According to the U.S. Energy Information Administration, in 1992 electricity was 2.6% of household income in Kansas. Today, it is 2.4%.

Exhibit 11 – Electricity Costs as Share of Household Expenditures

Electricity Costs Remain a Modest Slice of Household Expenditures



3. Kansas Rate Comparison to Peer Companies

A. Description of Peer Companies

For this study, peer companies were identified as all vertically-integrated investor-owned utilities ("IOUs") in Kansas and the immediately neighboring states of Missouri, Oklahoma, and Colorado with the addition of the extended regional states of Arkansas, Texas, Iowa, Minnesota, North Dakota, and South Dakota. The state of Nebraska, which is served by public power, does not have any vertically-integrated IOUs. This peer group list is provided below in Exhibit 12.

Exhibit 12 – Peer Companies in Kansas and Neighboring States

	Name of Company	Ultimate Parent	Regulated States
1	ALLETE Minnesota Power	ALLETE Inc.	MN, ND
2	Black Hills Colorado Electric Utility Company, LP	Black Hills Corporation	CO
3	Black Hills Power	Black Hills Corporation	SD, WY
4	El Paso Electric	El Paso Electric	AZ, NM, TX
5	Empire District Electric Company	Algonquin Power and Utilities Corp.	KS, MO, AR, OK
6	Entergy Arkansas, Inc.	Entergy Corporation	AR, LA
7	Entergy Texas, Inc.	Entergy Corporation	LA, TX
8	Interstate Power and Light Company	Alliant Energy Corporation	IA
9	Kansas City Power & Light Company	Evergy, Inc.	KS, MO
10	KCP&L Greater Missouri Operations Company	Evergy, Inc.	MO
11	MDU Resources Group	MDU Resources Group	MT, SD, ND, WY
12	Mid American Energy Company	Berkshire Hathaway	IL, IA, SD
13	Northern States Power	Xcel Energy, Inc.	MN, SD, ND
14	Northwestern Wisconsin Electric Company	Northwestern Wisconsin Electric Company	MN, WI
15	NorthWestern Corporation	NorthWestern Corporation	IA, MT, ND, SD, WY
16	Oklahoma Gas and Electric Company	OGE Energy Corp.	OK, AR
17	Otter Tail Power Company	Otter Tail Corporation	MN, ND, SD
18	Public Service Company of Colorado	Xcel Energy Inc.	CO
19	Public Service Company of Oklahoma	American Electric Power Company, Inc.	OK, TX
20	Southwestern Electric Power Company	American Electric Power Company, Inc.	AR, LA, TX
21	Southwestern Public Service Company	Xcel Energy Inc.	NM, TX
22	Union Electric Company	Ameren Corporation	MO
23	Westar Energy, Inc.	Evergy, Inc.	KS, OK*

Vertically Integrated IOUs in KS, MO, TX, OK, CO, IA, AR, SD, ND, MN

*Reflects ownership of Spring Creek Power Plant (273 MW gas CTs); Westar does not serve retail customers in OK.

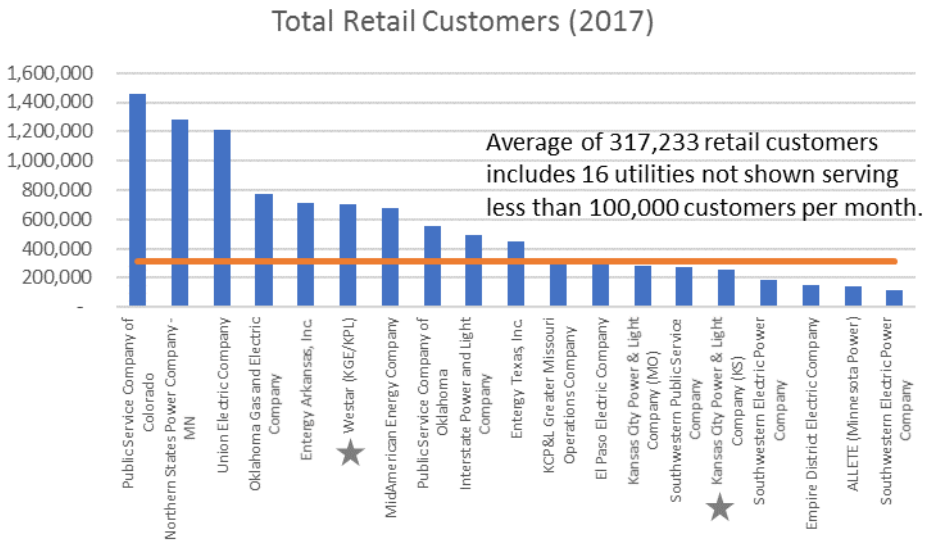
Most of the utilities in this list serve customers in multiple states, and in some cases, states that are not subject to this evaluation. Consequently, the list was expanded to include the utility companies providing electric service to retail customers in the states of interest to this study. The expanded list is provided below in Exhibit 13.

Exhibit 13 – Retail Electricity Providers Associated with Peer Companies

	Company Name	State of Operation	2017 Total Retail Electric Customers, Bundled (actual)	Ultimate Parent Company Name
1	ALLETE (Minnesota Power)	MN	146,353	ALLETE, Inc.
2	Black Hills Colorado Electric Utility Company, LP	CO	95,951	Black Hills Corporation
3	Black Hills Power, Inc.	SD	69,492	Black Hills Corporation
4	El Paso Electric Company	TX	318,055	
5	Empire District Electric Company	AR	4,537	Algonquin Power & Utilities Corp.
6	Empire District Electric Company	KS	9,667	Algonquin Power & Utilities Corp.
7	Empire District Electric Company	MO	152,950	Algonquin Power & Utilities Corp.
8	Empire District Electric Company	OK	4,680	Algonquin Power & Utilities Corp.
9	Entergy Arkansas, Inc.	AR	708,855	Entergy Corporation
10	Entergy Texas, Inc.	TX	446,771	Entergy Corporation
11	Interstate Power and Light Company	IA	489,605	Alliant Energy Corporation
12	Kansas City Power & Light Company	KS	254,913	Evergy, Inc
13	Kansas City Power & Light Company	MO	284,495	Evergy, Inc
14	KCP&L Greater Missouri Operations Company	MO	323,470	Evergy, Inc
15	MDU Resources Group, Inc.	ND	92,788	
16	MDU Resources Group, Inc.	SD	8,547	
17	MidAmerican Energy Company	IA	680,025	Berkshire Hathaway Inc.
18	MidAmerican Energy Company	SD	4,963	Berkshire Hathaway Inc.
19	Northern States Power Company - MN	ND	93,956	Xcel Energy Inc.
20	Northern States Power Company - MN	SD	92,931	Xcel Energy Inc.
21	Northern States Power Company - MN	MN	1,279,507	Xcel Energy Inc.
22	NorthWestern Corporation	SD	63,337	
23	Northwestern Wisconsin Electric Company	MN	86	
24	Oklahoma Gas and Electric Company	AR	66,825	OGE Energy Corp.
25	Oklahoma Gas and Electric Company	OK	771,427	OGE Energy Corp.
26	Otter Tail Power Company	MN	60,858	Otter Tail Corporation
27	Otter Tail Power Company	ND	58,710	Otter Tail Corporation
28	Otter Tail Power Company	SD	11,479	Otter Tail Corporation
29	Public Service Company of Colorado	CO	1,459,117	Xcel Energy Inc.
30	Public Service Company of Oklahoma	OK	550,022	American Electric Power Company, Inc.
31	Southwestern Electric Power Company	AR	119,159	American Electric Power Company, Inc.
32	Southwestern Electric Power Company	TX	185,249	American Electric Power Company, Inc.
33	Southwestern Public Service Company	TX	269,340	Xcel Energy Inc.
34	Union Electric Company	MO	1,215,790	Ameren Corporation
35	Westar Energy (KGE/KPL)	KS	707,843	Evergy, Inc

The utilities on this list served an average of 317,233 retail customers in 2017, ranging from a low of 86 (Northwestern Wisconsin Electric Company) customers to a high of 1,459,117 (Public Service of Colorado). During 2017, KCP&L-KS served a monthly average of 254,913 customers, and Westar served an average of 707,843 customers. Of the 35 providers included in the study 16 served fewer than 100,000 customers per month. The distribution of customer totals for the 19 utilities serving more than 100,000 customers is presented in Exhibit 14 below.

Exhibit 14 – Total Electricity Customers by Retail Provider



B. Comparison of Current Rates for Peer Companies

Kansas rates are now in line with the national average. The following Exhibits 15-18 present a comparison of the rates for all the utilities in the study based on total retail sales and by customer class (residential, commercial, and industrial). The results for 2007 and 2017 clearly show the impact of the investments made by KCP&L and Westar. While both companies had rates among the lowest in the group in 2007, they now have rates in most cases that are at or above the median but below the highest in the study group. A number of factors contribute to this outcome, and this report will explain those factors and provide information showing how future KCP&L and Westar price increases will be mitigated.

Exhibit 15 – Total Retail Sales Average Price, Comparison with Study Peer Group

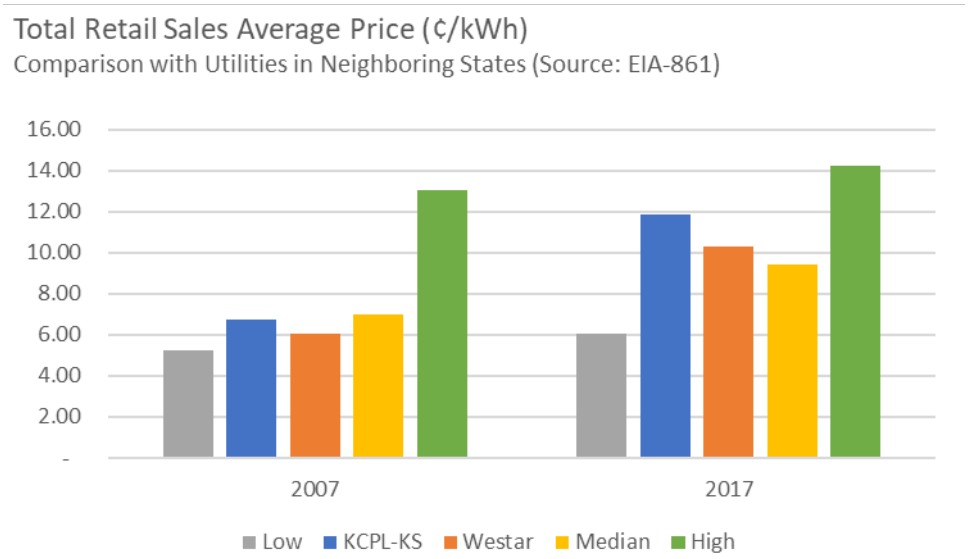


Exhibit 16 – Residential Sales Average Price, Comparison with Study Peer Group

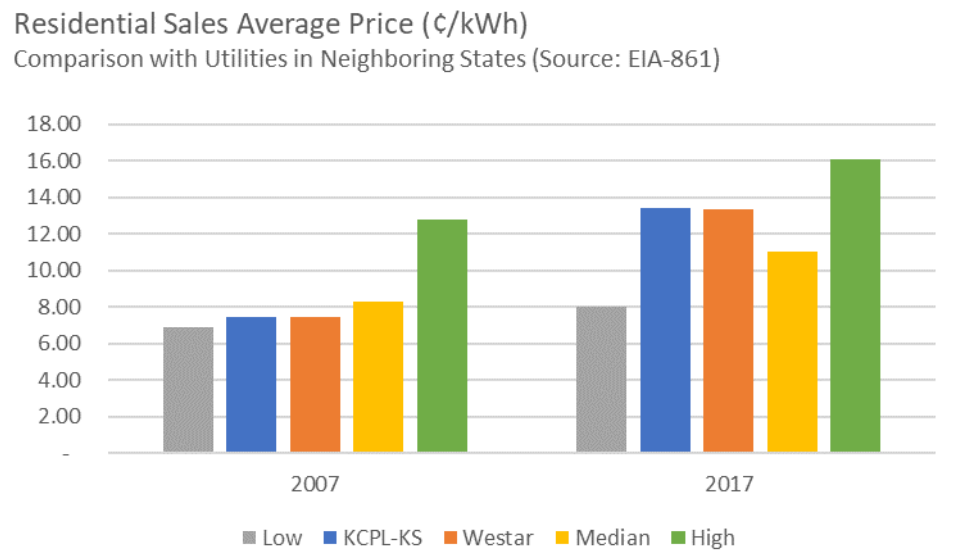


Exhibit 17 – Commercial Sales Average Price, Comparison with Study Peer Group

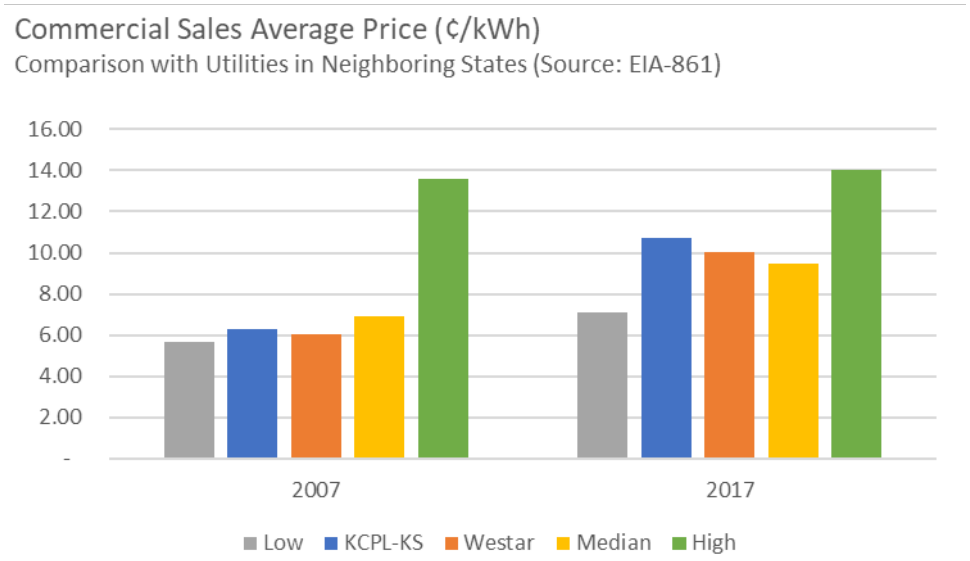
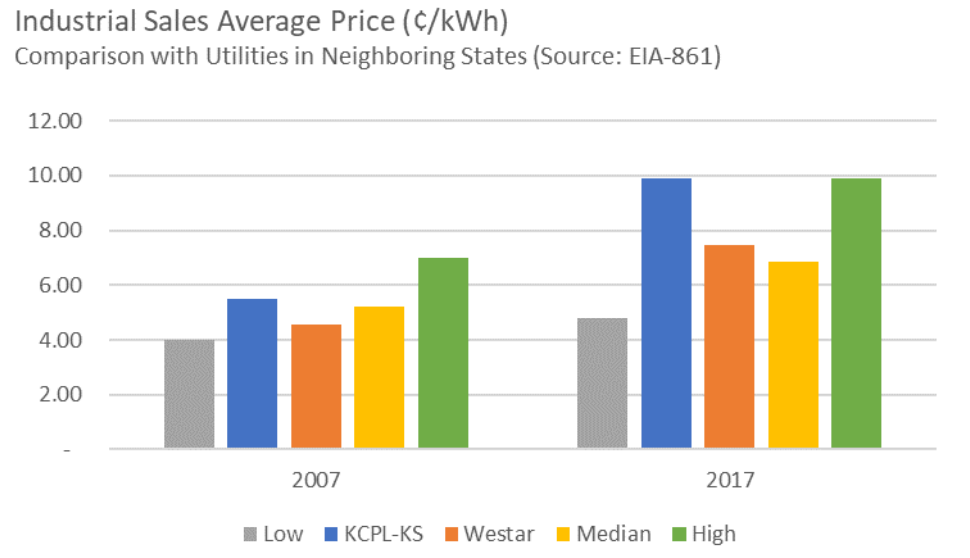


Exhibit 18 – Industrial Sales Average Price, Comparison with Study Peer Group



As indicated in Exhibit 18 above, KCP&L-KS has the highest average industrial price in the study group, while Westar is closer to the median.

KCP&L-KS, with its largely suburban location, has a smaller number of industrial customers with lower usage relative to the study group. This results in an industrial sales volume percentage of only 5% for KCP&L-KS versus the study average of 31%. These are significant factors contributing

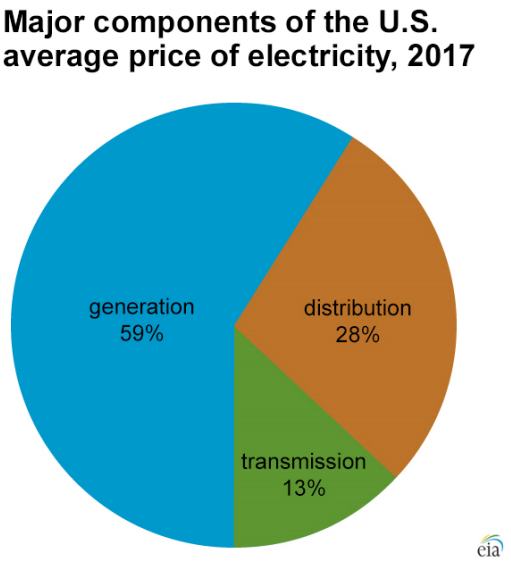
to higher average prices. Westar, with an industrial sales profile closer to the study averages, has industrial pricing that is lower than KCP&L-KS and closer to the median price in the study.

In 2017, KCP&L-KS had 928 industrial customers with an average usage of 319 MWh per year resulting in 296,000 MWh of industrial sales. For comparison, the study group averages 1,985 customers at 1,500 MWh per customer for a total of 3.0 million MWh per year. With roughly half the number of customers using about one-fifth of the average amount of electricity, KCP&L-KS has one-tenth of the total industrial volume of the average company. For Westar, the 2017 industrial volume was 5.7 million MWh based on sales to 4,621 customers using an average of 1,231 MWh. Although Westar has industrial customers with lower average usage, the company has a higher number of industrial customers, producing a total industrial volume that is 29% of the company mix, which is in line with the survey average of 31%.

C. Drivers of Rate Increases and Differences in Rates of Peer Companies

Electricity prices reflect the cost to build, operate and maintain power plants, and the transmission and distribution grid. According to EIA and depicted in Exhibit 19, the cost of generating electricity is typically the largest component of the price of electricity.

Exhibit 19 – Major Components of U.S. Average Price of Electricity, 2017



Source: U.S. Energy Information Administration, *Annual Energy Outlook 2018*, February 2018, Reference case, Table 8: Electrical supply, disposition, prices, and emissions

Within generation, power plants have different cost structures, depending on the generating technology and fuel type. Generally, coal and nuclear plants have higher construction and maintenance costs but lower fuel costs. Gas plants are less expensive to build and maintain, but historically have had higher fuel costs. Renewables, such as wind and hydro, have been more costly to construct but have no fuel costs, and maintenance expenses are generally somewhere between coal and gas.

Transmission and distribution investments are influenced by the location and mix of customers, with residential and commercial customers requiring a higher level of investment due to their demand profile and lower voltage requirement. While industrial customers may use large quantities of electricity at fairly constant levels supplied at higher voltages from the transmission grid, residential and commercial customers use much lower quantities with more variable demand at lower voltages that require additional equipment to supply.

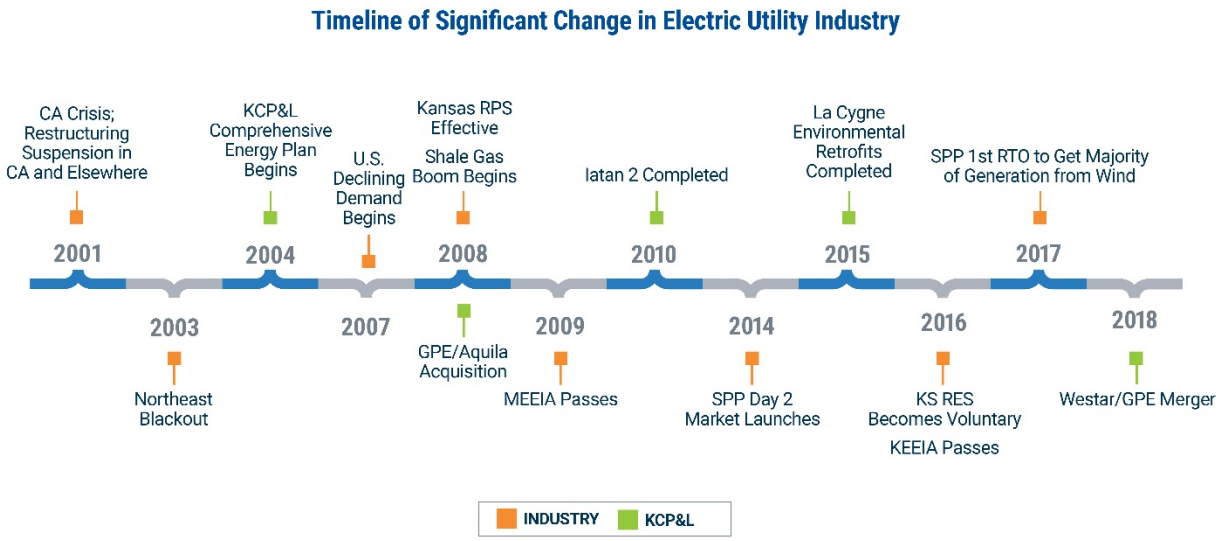
In planning for the future, utilities make significant investments that are designed to meet customer demand for many years to come. A number of uncontrollable factors have contributed to rising rates in Kansas. Noteworthy factors that will be explored further in this report include reduced customer demand for electricity, government mandates for environmental controls and renewable energy, and an evolving generation fuel mix spurred by the advent of wind and the development of shale gas.

4. Changing Landscape

A. Timeline of Significant Change

After years of little change to national energy policy, the past decade has seen significant changes in the industry, reversing longstanding trends in some cases and creating uncertainty in other areas. As the timeline depicts in Exhibit 20, several significant milestone events over the past 20 years have impacted the industry and companies. This includes uncontrollable events, such as declining demand due to improved energy efficiency standards, the beginning of the shale gas boom, the Great Recession (late 2007 through 2009), environmental mandates, policymakers instituting incentives to deploy alternative technologies, proliferation of wind resources, evaporation of off-system sales, and launch of the Southwest Power Pool ("SPP") Integrated Marketplace. Other milestone events include significant company decisions in response to this dynamic landscape, such as the launch and completion of KCP&L's Comprehensive Energy Plan, Great Plains Energy ("GPE")/Aquila acquisition, energy efficiency legislation, environmental retrofit investments, and the Westar/GPE merger.

Exhibit 20 – Timeline of Significant Change in Electric Utility Industry

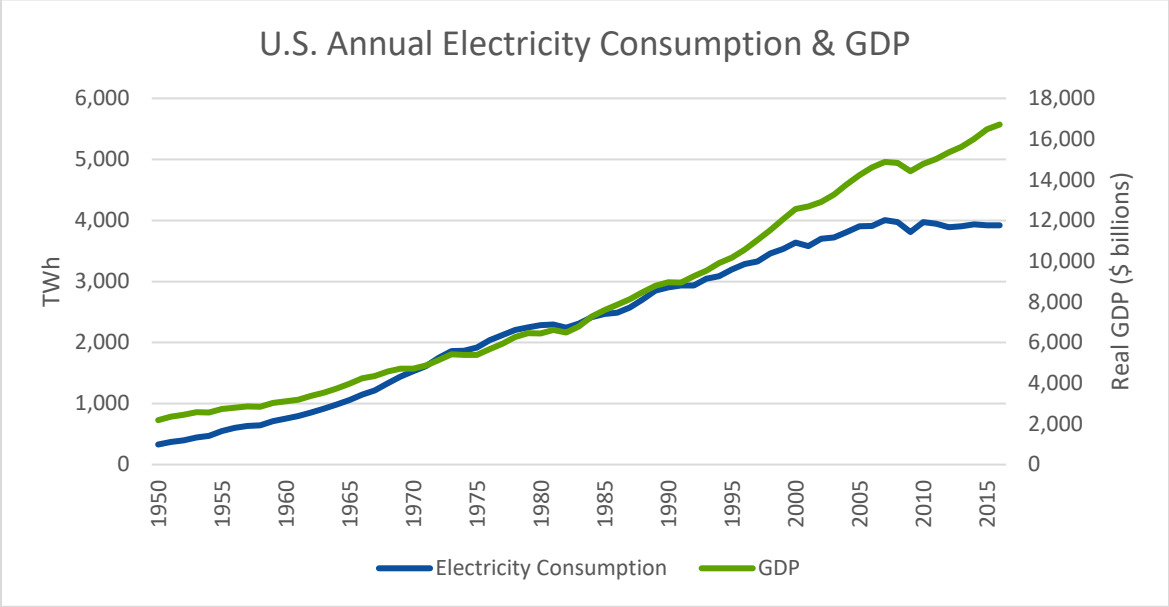


Event	Year	Impact	Description
Demand Decline	**'07-'17**	**Increase Rates**	**Fixed cost of utility operations recovered through less sales volumes**
Environmental Retrofits	**'07-'13**	**Increase Rates**	**Additional investment to ensure continued operation of low-cost coal plants at a time with no additional sales volumes to help mitigate costs**
Regional Markets	**'09-'14**	**Increase Rates**	**SPP created; drives mandated transmission costs, market efficiency leads to lower wholesale energy sales**
Wind	**'07-'17**	**Increase Rates**	**Short-term increase; long-term rates lower than otherwise – contributes to market energy and capacity surplus further reducing wholesale energy sales opportunities**

B. Flattening Energy Usage

Electricity consumption correlated well with total economic growth in the 1970s and 80s. Electric growth flattened relative to Economic growth starting with the economic boom in the 1990s. Since 2010, the correlation has evaporated, as shown in Exhibit 21.

Exhibit 21 – U.S. Annual Electricity Consumption and GDP



Source: EIA (Electricity Consumption) and Bureau of Economic Analysis (GDP)

Energy productivity is at an all-time high. It takes much less energy to create the same level of economic output as it did 25 years ago. By this measure (GDP per unit of energy consumed), U.S. productivity has increased 56% since 1990, and 2.3% from 2014 to 2015 (GDP grew 2.4% whereas energy consumption only grew 0.1%). Overall energy productivity has increased, reducing the growth in energy consumption per capita despite larger homes.[3] One of the main reasons the U.S. economy has become more energy efficient is that utilities have increased their spending on energy efficiency programs by 25% a year between 2013 and 2014.

C. Energy Efficiency Drivers

Much of this increase in energy efficiency spending is driven due to energy efficiency efforts that are widespread and take many forms:

- National Appliance Standards
- State Energy Efficiency Goals
- Education on lowering energy consumption
- Federal equipment efficiency mandates
- Utility-sponsored Demand-Side Management programs
- Economic trends that have resulted in small and more efficient housing
- Electric price

In total, we have seen a correlation of the decline in energy use with the implementation of industry standards. A number of recent industry standards have impacted usage levels.

[3] The History of Energy Efficiency, January 2013

D. Residential Efficiency Standards

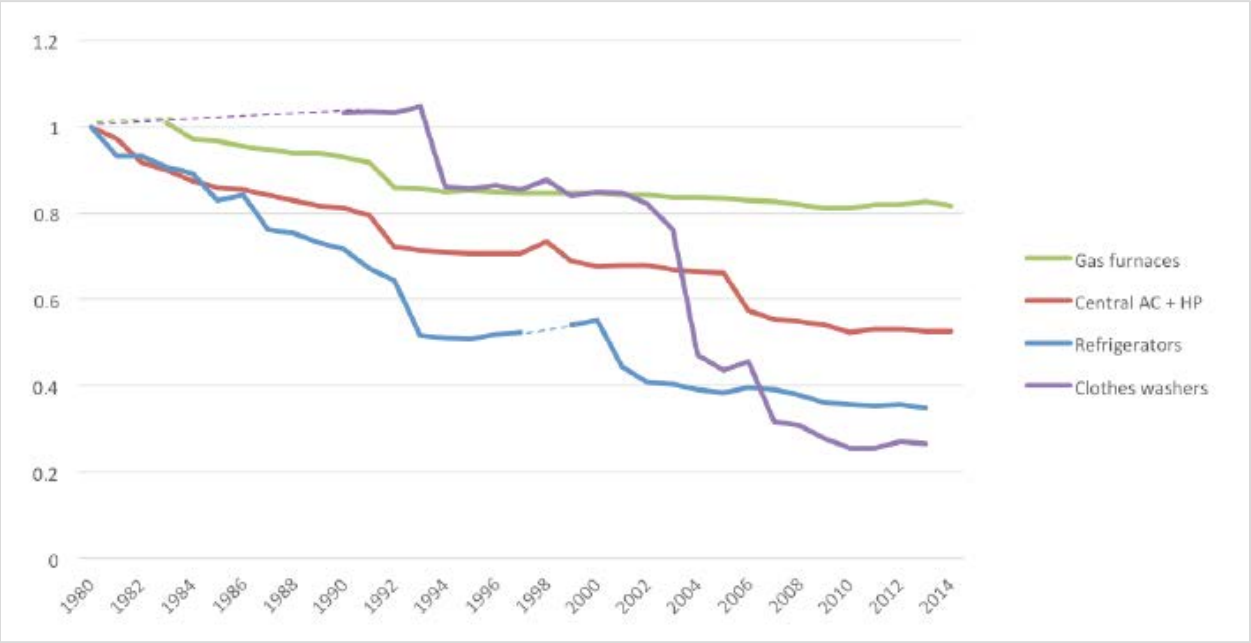
- 2006 – first update of the U.S. Division of Energy Home Air Conditioner standard since 1992
- 2007 – first U.S. Division of Energy ceiling fan efficiency standards
- 2007 – Energy Independence and Security Act (EISA) passes Congress, standards for light bulbs to be implemented 2012-2014
- 2010-2015 – first U.S. Division of Energy efficiency standard updates in over a decade for residential water heaters, room air conditioner, freezers, refrigerators, dishwashers, and clothes dryers

E. Commercial / Industrial Efficiency Standards

- 2007-2012 – first U.S. Division of Energy efficiency standards for commercial/industrial clothes washers, walk-in freezers, vending machines, ice makers, refrigerators, and freezers

To further illustrate this point, Exhibit 22 shows the relative average energy use for several of the major appliances used in the home.

Exhibit 22 – Major Home Appliances Relative Average Energy Use



Source: ACEEE analysis of data from Air-Conditioning and Refrigeration Institute, Association of Home Appliance Manufacturers, Lawrence Berkeley National Laboratory, and confidential industry sources. Relative average energy consumption of new appliances sold over the 1980–2014 period (2014 refrigerator and clothes washer data not yet available).

F. Residential Lighting

The lighting sector has experienced several changes in efficiency recently. Exhibit 23 shows a comparison of the wattage of Light Emitting Diode ("LED"), Compact Florescent Lighting ("CFL"), incandescent and halogen bulbs. Halogens use about 43% less energy and CFLs use about 75% less energy than incandescents. Whereas, LED bulbs use about 85% less energy than incandescent (and about 35% less than CFLs) and now account for 33% of all light bulb sales. About 95% of the energy used by incandescents is converted to heat. Heat output from lighting also influences air conditioning usage, particularly in large commercial buildings.

Exhibit 23 – Light Bulb Energy Usage

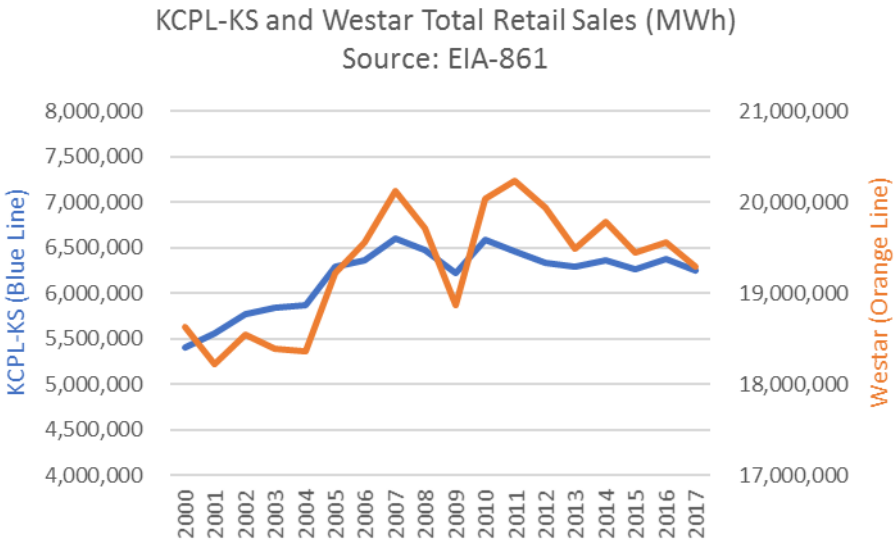
BULB \ BRIGHTNESS	450 lumens	800 lumens	1100 lumens	1600 lumens	2600 lumens	5800 lumens
LED	6W	9-10W	13W	16-18W	24W	45W special high voltage lamps
CFL	8-9W	13-14W	18-19W	23W	40W	85W
Regular Incandescent	40W	60W	75W	100W	150W	300W
Halogen	29W	43W	53W	72W	150W	300W

Source: https://www.alconlighting.com/blog/residential-led-lighting/how-do-i-determine-how-many-led-lumens-i-need-for-a-space/

G. KCP&L and Westar Trends

These changes in efficiency standards are significant because, similar to national trends from 2008-2012, for the first time in history, the Companies saw flat to declining usage largely as a result of the stagnant economy and increased energy efficiency. See Exhibit 24.

Exhibit 24 – KCPL-KS and Westar Total Retail Sales Volume History, 2000-2017



As the chart above illustrates, retail sales for KCP&L-KS and Westar fell significantly in 2008, primarily due to the housing market collapse and consumer spending related to the Great Recession. Even as the economy started to recover, the utilities continued to see a flattening of demand growth, primarily as a result of construction practices, appliance efficiency standards and heightened customer interest in energy efficiency.

In looking at growth trends over the past 10 years, KCP&L and Westar also lag behind many of the Peer Companies in this study, as depicted in Exhibit 25.

Exhibit 25 – Retail Electric Volume Trends for Study Peer Group

Total Retail Electric Volume (MWh)	State	Retail Customers (2017)	2007 MWh	2012 MWh	2017 MWh	2007 - 2012 Growth	2012 -2017 Growth	2017 vs 2007	2007 - 2017 CAGR
ALLETE (Minnesota Power)	MN	145,857	9,001,242	9,388,538	8,997,352	4.3%	-4.2%	0.0%	0.0%
Black Hills Colorado Electric Utility Company, LP	CO	96,118	NA	1,818,580	1,901,236		4.5%		
Black Hills Power, Inc.	SD	69,364	1,485,977	1,481,501	1,479,837	-0.3%	-0.1%	-0.4%	0.0%
El Paso Electric Company	TX	318,055	5,434,767	6,021,749	6,198,304	10.8%	2.9%	14.0%	1.3%
Empire District Electric Company	AR	4,536	153,061	153,983	170,908	0.6%	11.0%	11.7%	1.1%
Empire District Electric Company	KS	9,667	249,745	226,121	219,420	-9.5%	-3.0%	-12.1%	-1.3%
Empire District Electric Company	MO	152,951	4,223,934	4,023,550	3,976,153	-4.7%	-1.2%	-5.9%	-0.6%
Empire District Electric Company	OK	4,680	141,646	158,055	149,056	11.6%	-5.7%	5.2%	0.5%
Entergy Arkansas, Inc.	AR	708,855	21,370,955	21,086,842	20,888,404	-1.3%	-0.9%	-2.3%	-0.2%
Entergy Texas, Inc.	TX	446,771	15,522,096	16,344,448	18,058,445	5.3%	10.5%	16.3%	1.5%
Interstate Power and Light Company	IA	489,605	15,085,720	14,543,700	14,393,847	-3.6%	-1.0%	-4.6%	-0.5%
Kansas City Power & Light Company	**KS**	**254,913**	**6,606,722**	**6,331,034**	**6,245,053**	**-4.2%**	**-1.4%**	**-5.5%**	**-0.6%**
Kansas City Power & Light Company	MO	284,495	8,980,212	8,580,716	8,289,616	-4.4%	-3.4%	-7.7%	-0.8%
KCP&L Greater Missouri Operations Company	MO	326,777	8,129,074	8,080,313	7,931,919	-0.6%	-1.8%	-2.4%	-0.2%
MDU Resources Group, Inc.	ND	92,862	1,517,297	1,805,281	2,073,148	19.0%	14.8%	36.6%	3.2%
MDU Resources Group, Inc.	SD	8,576	134,535	145,560	145,591	8.2%	0.0%	8.2%	0.8%
MidAmerican Energy Company	IA	680,025	18,800,640	19,677,509	22,365,099	4.7%	13.7%	19.0%	1.8%
MidAmerican Energy Company	SD	4,963	206,753	208,231	235,790	0.7%	13.2%	14.0%	1.3%
Northern States Power Company - MN	ND	93,955	2,209,458	2,207,401	2,207,483	-0.1%	0.0%	-0.1%	0.0%
Northern States Power Company - MN	SD	92,931	1,942,445	2,030,027	2,111,376	4.5%	4.0%	8.7%	0.8%
Northern States Power Company - MN	MN	1,279,507	32,490,770	31,183,575	29,746,784	-4.0%	-4.6%	-8.4%	-0.9%
NorthWestern Corporation	SD	63,337	1,351,987	1,501,454	1,557,326	11.1%	3.7%	15.2%	1.4%
Northwestern Wisconsin Electric Company	MN	86	551	565	562	2.5%	-0.5%	2.0%	0.2%
Oklahoma Gas and Electric Company	AR	66,826	2,815,272	2,739,366	2,550,850	-2.7%	-6.9%	-9.4%	-1.0%
Oklahoma Gas and Electric Company	OK	771,427	22,155,927	24,046,252	23,730,041	8.5%	-1.3%	7.1%	0.7%
Otter Tail Power Company	MN	60,858	2,131,175	2,084,515	2,598,516	-2.2%	24.7%	21.9%	2.0%
Otter Tail Power Company	ND	58,710	1,597,012	1,747,286	1,787,863	9.4%	2.3%	12.0%	1.1%
Otter Tail Power Company	SD	11,479	395,644	408,988	428,605	3.4%	4.8%	8.3%	0.8%
Public Service Company of Colorado	CO	1,459,117	28,085,887	28,786,033	28,628,813	2.5%	-0.5%	1.9%	0.2%
Public Service Company of Oklahoma	OK	550,022	17,910,740	17,963,562	18,026,293	0.3%	0.3%	0.6%	0.1%
Southwestern Electric Power Company	AR	118,885	4,252,085	4,062,112	3,775,037	-4.5%	-7.1%	-11.2%	-1.2%
Southwestern Electric Power Company	TX	185,031	7,358,465	7,521,088	7,034,954	2.2%	-6.5%	-4.4%	-0.4%
Southwestern Public Service Company	TX	269,339	13,135,966	13,920,296	13,853,436	6.0%	-0.5%	5.5%	0.5%
Union Electric Company	MO	1,215,790	38,827,452	36,745,908	31,597,238	-5.4%	-14.0%	-18.6%	-2.0%
Westar (KGE/KPL)	**KS**	**706,788**	**20,124,164**	**19,937,750**	**19,290,184**	**-0.9%**	**-3.2%**	**-4.1%**	**-0.4%**

Source: EIA-861

A key takeaway from all this information is that even if Kansas utilities had not invested in environmental mandates and modernizing the grid, KCP&L and Westar customer rates would have increased due to the challenging economy and efficiency standards. For over 100 years, electricity use has typically increased year over year, and revenues from this increase in usage and sales have helped offset the need to raise rates due to increases in the cost to serve customers. Had both utilities experienced a modest level of growth of 1.5% annually over the ten-year period, current rates would be about 20% lower than today. This is due to the combination of higher revenue and the additional sales volumes to recover fixed costs.

The reduced demand after the 2008 Great Recession, along with the impacts of energy efficiency, put pressure on the need for rate increases during the past decade because that corresponding increase in sales revenue to cover costs no longer existed.

H. Changing Markets

For years, available capacity from company-owned power plants could be sold as off-system sales in the energy market. Off-system sales revenues are a direct dollar for dollar offset to the cost of serving retail customers, effectively decreasing the amount of money needed to be collected in customer rates. Another way to think of this is that both KCP&L and Westar exported electricity to customers outside of Kansas and the revenue from this acted as a subsidy to reduce the rates of Kansas customers. In fact, this benefit from off-system sales, along with growing demand, factored into the stakeholder collaboration and decision to construct Iatan 2 (an 850-megawatt coal plant) to serve the region as part of KCP&L's Comprehensive Energy Plan that was approved by the KCC in 2005.

Since the time of that decision, our region has experienced dramatic change in the energy environment, primarily due to structural changes with the SPP market, phenomenal growth in shale gas production and the proliferation of renewable wind energy in the SPP region.

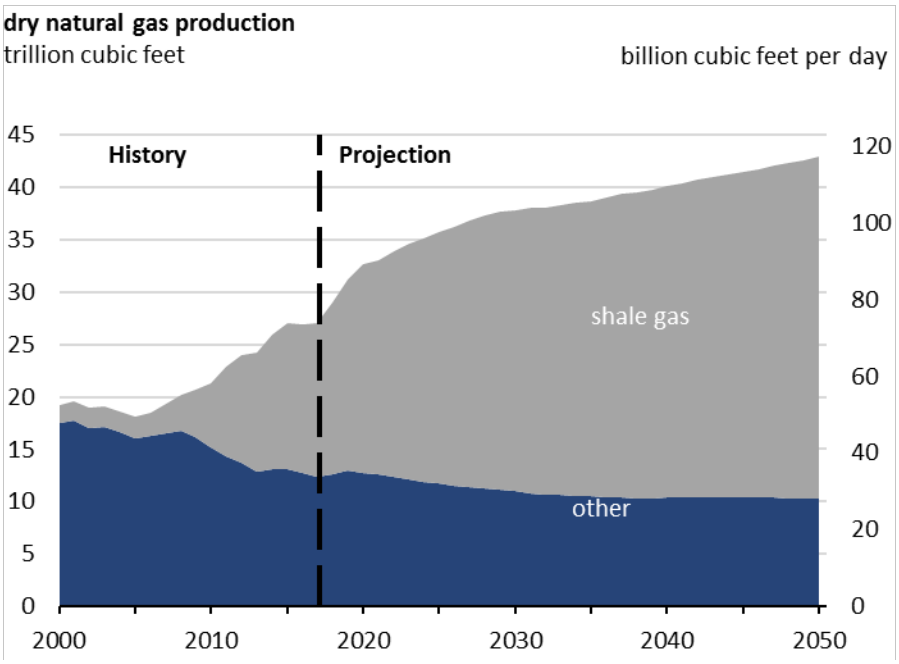
On March 1, 2014, the SPP, which oversees the bulk power electric grid and wholesale power markets in the central United States on behalf of utilities and transmission companies in 14 states, including Kansas and the other states reflected in this study, implemented the Integrated Marketplace (SPPIM), referred to previously as the Day 2, or day-ahead, market. The SPPIM, with its mission to ensure the reliable supply of power and competitive electric prices for member states, created a day-ahead market that allowed for price assurance prior to real-time operations, and it provided a centralized unit commitment process.

Under the SPPIM, individual generators are no longer scheduled to meet their respective load, supplementing to meet native load obligations, or selling available energy, on a bilateral basis. Instead, generation is offered to the SPPIM and via the market co-optimization process, SPP largely determines the amount of generation produced, and who is to produce it, to meet the total load requirements of the SPP. This is known as centralized unit commitment and ensures the lowest priced available generating units are dispatched at any time, considering reliability of the transmission system. What this means is that all the power plants in the SPP are ranked according to the cost to operate them that day and the SPP matches the amount of electricity generated to the anticipated demand in the most efficient way possible. This has the benefit of giving all customers served by utilities in the SPP's marketplace the most efficiently produced electricity. But it also has reduced the amount of off-system power sales, substantially eliminating one of the competitive advantages that Kansas has historically had.

A reduction in market inefficiencies post-SPPIM implementation, from both a pricing and operational perspective, has caused a sharp decline in off-system sales. Market participants no longer rely on counterparties to sell and transmit energy to them when needed, because these transactions are handled seamlessly by the market. Although KCP&L can transact bilaterally within the SPPIM, these intra-SPP bilateral transactions are minimal, and are primarily limited to longer-term fixed price transactions with counterparties seeking price certainty (i.e., a municipality). The shorter duration, intra-day or intra-week transactions, sold from one counterparty with available energy to another who is short energy to meet their obligations, have dried up.

Concurrent with the changes in the SPP marketplace, the U.S. natural gas market has undergone an epic shift due to increases in shale gas production. Exhibit 26 shows the rapid rise in shale gas production beginning in the late 2000's. At the start of the decade, shale gas accounted for less than 10% of the total U.S. natural gas production. By the middle of the decade, shale gas production began increasing but still only made up 11-12% of the U.S. total. By the end of the decade, technological advances in production had taken hold, and shale gas had grown to 21% of the U.S. total. This growth has accelerated in the current decade, with shale gas increasing from 29% in 2010 to over 54% of the U.S. total in 2017.

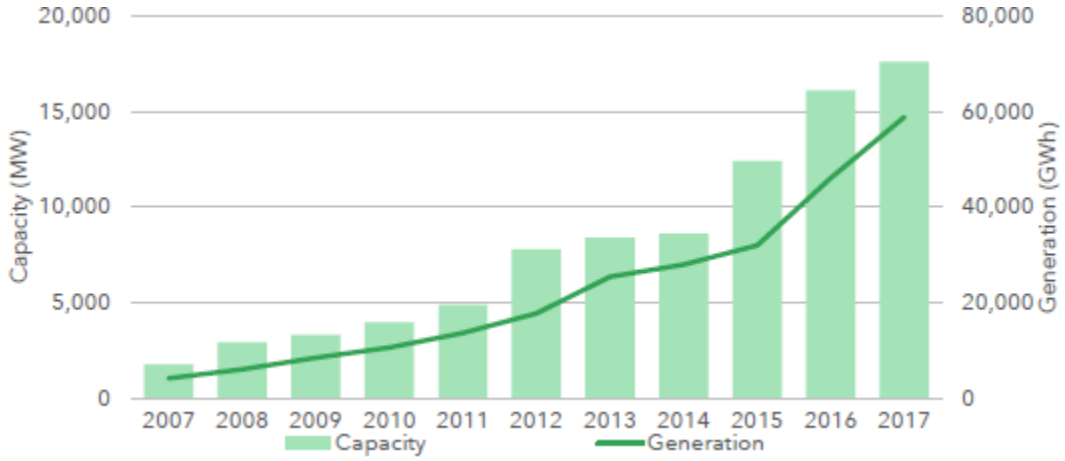
Exhibit 26 – U.S. Natural Gas Production



Note: Shale gas production includes associated natural gas from tight oil plays.
Source: U.S. Energy Information Administration, *Annual Energy Outlook 2018* Reference case

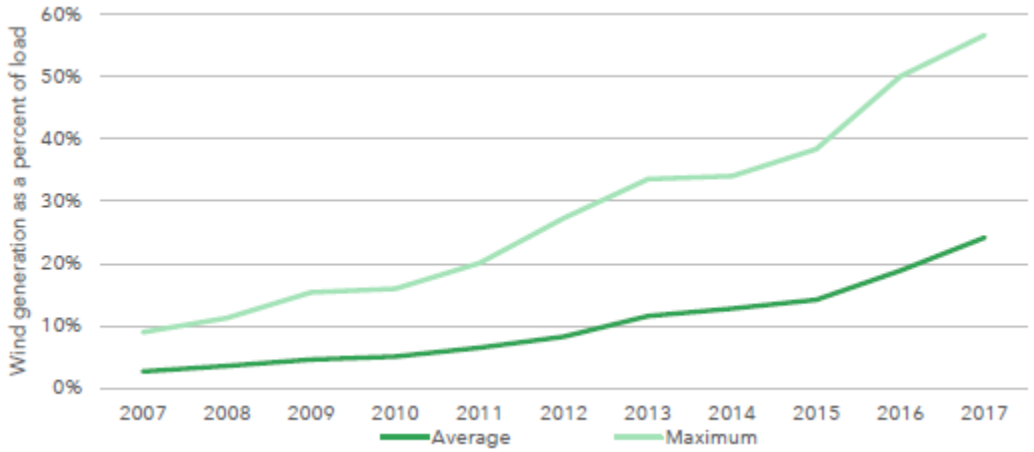
The increase in shale gas production was accompanied by another significant market shift, namely, the proliferation of wind generation. In 2007, SPP wind capacity was just 2,038 MW. Encouraged by renewable energy standards and production tax credits, this total has grown to 17,596 MW in 2017, and wind now accounts for about 20% of the installed capacity in the SPP market. Additionally, wind generation served just over 24% of the SPP load in 2017. The following exhibits illustrate the growth in SPP wind capacity, generation, and percentage of load.

Exhibit 27 – SPP Wind Capacity and Generation, 2007-2017



Source: SPP State of the Market 2017

Exhibit 28 – SPP Wind Generation as a Percent of Load

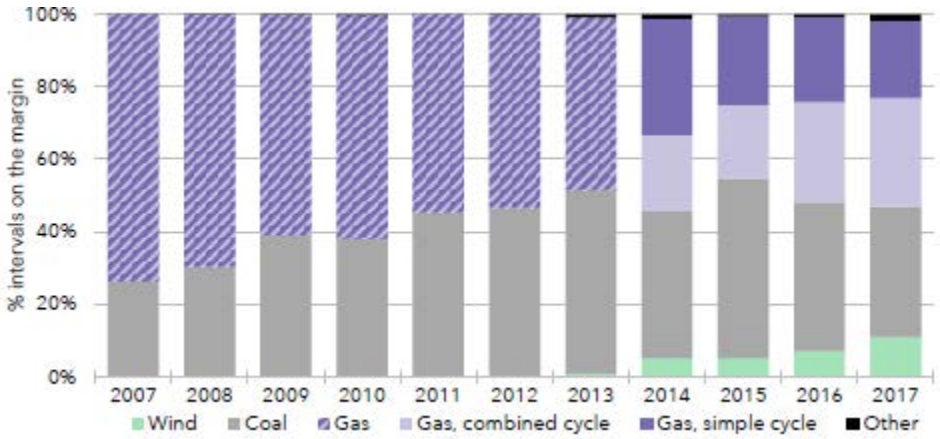


Source: SPP State of the Market 2017

These market forces have produced a profound change in the price of energy. Wind plays a major role in pricing during off-peak hours; more wind means overnight and early morning pricing for off-system power sales are much lower than they were in 2007. During daytime and peak hours for electricity demand, natural gas sets the marginal price for off-system power sales. The abundance and low price of natural gas since the shale boom, accounts for a large part of the downward price movement. In the SPP, natural gas has set the marginal energy price for significant periods dating back to 2007 as shown below in Exhibit 29.

As a result of the SPP integrated marketplace, the development of significant wind power in the Plains states, and the shale gas boom, both the price and the volume of off-system sales has decreased to nearly nothing for KCP&L and Westar—nearly eliminating a large customer subsidy to retail rates.

Exhibit 29 – SPP Generation on the Margin, Real Time, Annual

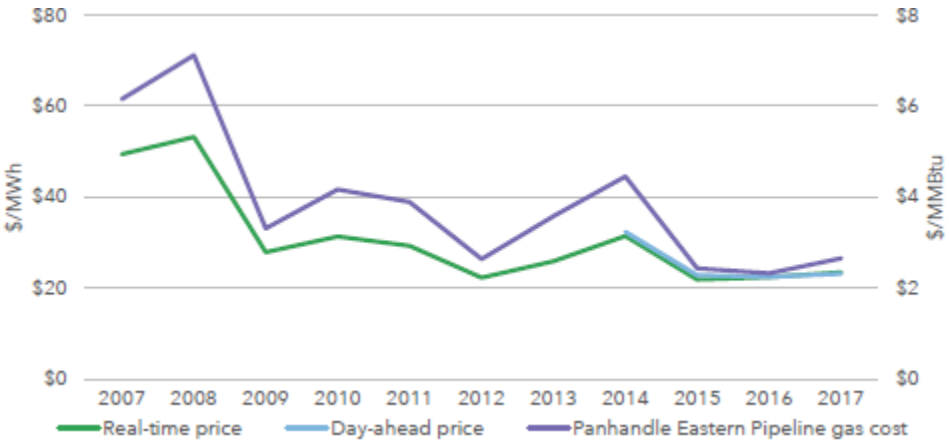


Generation on the Margin, Real Time, Annual
Source: SPP State of the Market 2017

In 2007, the first year of the SPP Energy Imbalance Service (EIS) market, natural gas was on the margin, setting the price for market energy, about 75% of the time. Due to market efficiency improvements, generation from simple cycle gas combustion turbines declined over time, and natural gas was on the margin about 50% of the time by 2013. Following the introduction of the SPPIM in 2014, natural gas has remained on the margin about 50% of the time.

With gas on the margin for significant periods, electricity market prices have followed the cost of natural gas as shown below.

Exhibit 30 – SPP Energy Price vs Natural Gas Cost, Annual



Energy Price versus Natural Gas Cost, Annual
Source: SPP State of the Market 2017

As shale gas production began rapidly increasing due to improvements in drilling and extraction technology, natural gas prices experienced a large decline in 2009. Given its dependence on natural gas as the marginal fuel, the SPP marginal energy price saw a similar drop. This reduction in natural gas and energy prices has been sustained, and its impact on coal generation margins can be illustrated with the following example.

Historically, the generation of electricity from coal has enjoyed a large cost advantage compared to natural gas. When gas prices peaked in 2008 at over $8.00 per MMBtu, the fuel requirement for generation from a typical combined cycle unit was roughly $56 per MWh (assuming a heat rate of 7 MMBtu/MWh). For comparison, the fuel cost for the coal-fired La Cygne Unit 1 was $13.20 per MWh, based on a coal price of $1.24 per MMBtu and an average heat rate of 10.648 MMBtu per MWh of net generation. With natural gas setting the marginal price, La Cygne Unit 1 would have the potential to produce almost $43 in energy margin.

If this case is extended to 2017, the same combined cycle unit burning natural gas at $3.00 per MMBtu would generate electricity for $21 per MWh. For comparison, the fuel cost for La Cygne Unit 1 was $19.90 per MWh, based on a coal price of $1.822 per MMBtu and an average heat rate of 10.926 MMBtu per MWh of net generation. In this example, the potential for La Cygne to produce $43 energy margins in 2008 would be reduced to just about one dollar in 2017 when combined cycle natural gas is on the margin. Although the absolute values would vary by coal unit, this significant erosion of margins would occur across the coal fleet.

Given that Kansas utilities historically had large amounts of coal in their generation mix, Kansas customers benefited while other states with a higher generation mix of gas were more heavily impacted by fluctuating high gas prices.

Exhibit 31 – 2007 Generation by Fuel Source for Kansas and Neighboring States

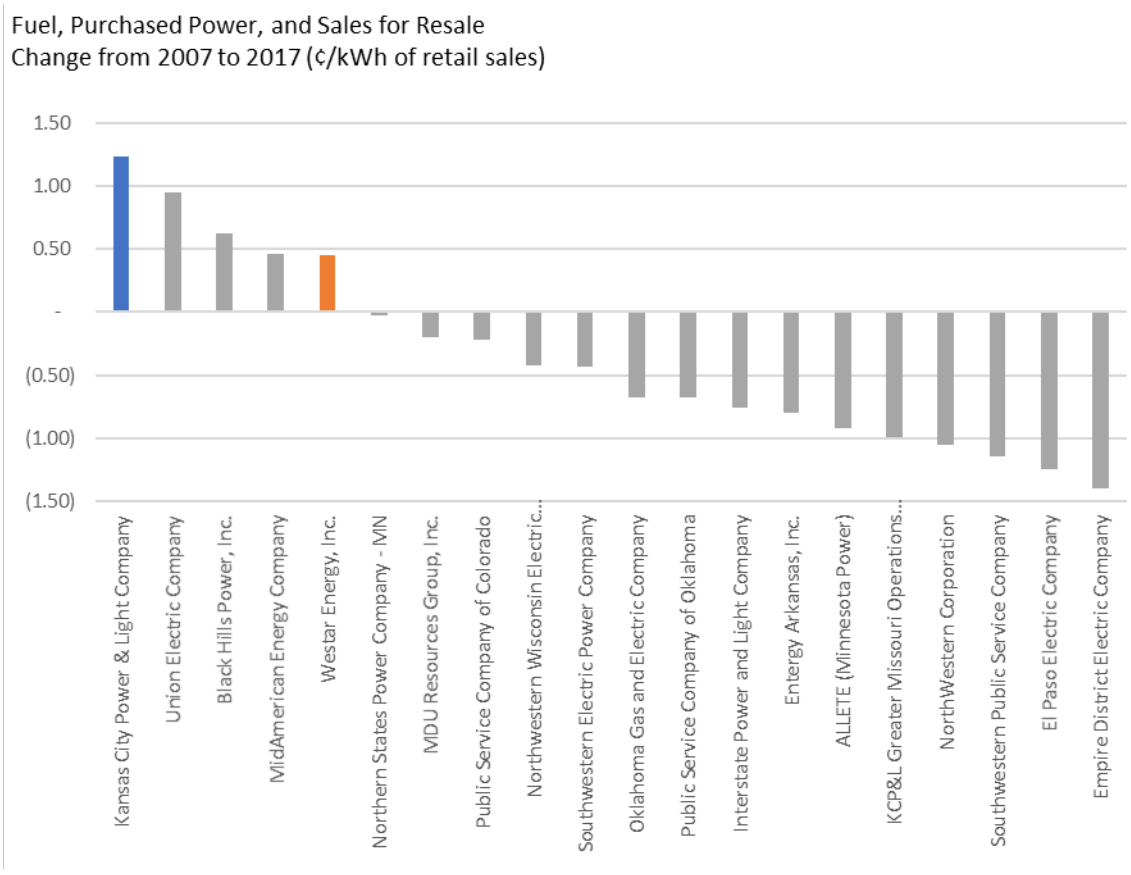
2007 Generation by Fuel Source						
STATE	Coal	Nuclear	Natural Gas	Wind	Hydro	Other
AR	47.2%	28.4%	15.3%	0.0%	5.9%	3.2%
CO	66.7%	0.0%	27.9%	2.4%	3.2%	-0.1%
IA	76.3%	9.1%	6.2%	5.5%	1.9%	1.0%
KS	72.3%	20.7%	4.3%	2.3%	0.0%	0.4%
MN	59.1%	24.1%	7.1%	4.8%	1.2%	3.8%
MO	82.4%	10.3%	5.5%	0.0%	1.3%	0.6%
ND	93.4%	0.0%	0.1%	2.0%	4.2%	0.4%
OK	47.3%	0.0%	45.5%	2.5%	4.2%	0.4%
SD	43.3%	0.0%	5.7%	2.4%	47.5%	1.0%
TX	36.3%	10.1%	49.2%	2.2%	0.4%	1.7%
US-TOTAL	48.5%	19.4%	21.6%	0.8%	6.0%	3.7%

Source: EIA-906, EIA-920, and EIA-923

The shale gas revolution, beginning around 2008, significantly changed the landscape. Coincidentally, this is now benefiting surrounding states with more reliance on gas, but not Kansas with less gas in its generation mix. This helped utilities with heavy reliance on gas generation to mitigate cost increases. Having a heavy reliance on coal, both KCP&L and Westar customers were not able to reap the benefits of low natural gas prices, with the result being lower regional prices that Kansas did not benefit from, thus bringing Kansas's historically low rates closer to surrounding states as reflected in Exhibits 15-18, KCP&L-KS and Westar Rate History.

The impact of the shift in market energy prices is illustrated in the following exhibit, which shows the net of sales for resale revenue against the cost of fuel and purchased power. This measure approximates the variable market cost to supply energy to customers. Where KCP&L and Westar have seen increases in the past ten years (2007 to 2017), most companies in the study have seen a decline in net power expense per retail sales volume.

Exhibit 32 – Fuel, Purchased Power, and Sales for Resale per Retail Sales Volume



The prices of long-term wind energy contracts have also declined significantly, and are now competitive with wholesale electricity prices in the Midwest. The impact of renewables is even more pronounced in dispatch decisions, where the marginal cost of providing the next kWh is what matters. Since its marginal costs are effectively zero, wind can be dispatched at prices

lower than conventional resources, even at negative prices at times, owing to federal production tax credits and renewable energy trading credits. Wind Production Tax Credits have contributed to significant wind development in the SPP region. Current SPP wind is at approximately 20 GW, and there are additional interconnection requests totaling over 60 GW pending (To put this in perspective, the peak load for the entire SPP footprint is currently under 51 GW). This wind will run at a negative market price to capture the value of the PTC. Such prices, driven by out-of-market subsidies provided to these generation technologies, can undermine energy price signals in competitive electricity markets.

Given the changing dynamics of the market in the last several years with the advent of economic wind and shale natural gas, the energy margins from coal power plants have virtually disappeared. Not having the benefit of healthy off-system sales margins to offset retail customer fuel costs has put pressure on customer rates. In 2007, off-system sales margins from owned generation plants provided benefits of over $40 million and $24 million for Westar and KCP&L-KS customers, respectively. With the dramatic change in market prices, the benefit of off-system sales to offset fuel costs has disappeared.

5. Capital Spend Trends and Drivers

A. Description for metric used to compare peer companies

Utility plant in service is the most significant driver of rate base – the value of investment on which a public utility has an opportunity to earn a return. Net plant is determined by subtracting accumulated depreciation in accounting terms, or a level of depletion of the assets by use, from the total original cost of plant installed. An increase in net plant usually correlates to an increase in a utility's revenue requirement used to set rates. However, the rate impacts from plant investments for regulated utilities tend to be partially offset by plant-related deferred income tax liability changes that are driven by a utility's income tax elections and specific circumstances. This typically helps to mitigate the impact of plant investment on rates in the early years after the investment is made by providing a rate base offset from higher deferred income taxes.

B. Comparison of capital spend for peer companies

Over the last ten years, Westar has added approximately $5.5 billion in net plant to serve Kansas customers, and KCP&L has added about $3.5 billion, with roughly 46% allocated to its Kansas customers. Following these investments, as reflected in Exhibit 33, Westar is the third highest and KCP&L is the fourth highest in the study group based on net plant per retail sales volume. Generation investment is by far the most significant factor in growth. For KCP&L, almost 68% of net plant growth has been in generation resources – Iatan station, La Cygne, Hawthorn and other stations. Similarly, Westar net plant growth is over 58% generation-related for Jeffrey Energy Center, La Cygne and new gas plants.

Exhibit 33 – Net Plant Investment Growth 2007-2017

Company	Net Electric Plant ($ million) 2007	2017	07-17 Net Adds	Net Plant per Retail Sales Volume ($/MWh) 2007	2017	07-17 Increase
Black Hills Power, Inc.	$ 399	$ 886	$ 487	$ 238	$ 503	$ 265
MidAmerican Energy Company	$ 4,354	$ 11,718	$ 7,364	$ 208	$ 477	$ 270
Westar Energy, Inc.	**$ 3,434**	**$ 8,950**	**$ 5,516**	**$ 171**	**$ 464**	**$ 293**
Kansas City Power & Light Company	**$ 2,942**	**$ 6,417**	**$ 3,475**	**$ 189**	**$ 441**	**$ 253**
Empire District Electric Company	$ 899	$ 1,897	$ 998	$ 188	$ 420	$ 232
Black Hills Colorado Electric Utility Company, LP	-	$ 719	-	-	$ 378	-
MDU Resources Group, Inc.	$ 285	$ 1,176	$ 891	$ 110	$ 356	$ 246
Southwestern Electric Power Company	$ 2,129	$ 6,020	$ 3,890	$ 123	$ 351	$ 228
El Paso Electric Company	$ 1,179	$ 2,734	$ 1,555	$ 168	$ 349	$ 181
ALLETE (Minnesota Power)	$ 890	$ 2,973	$ 2,083	$ 99	$ 330	$ 232
Entergy Arkansas, Inc.	$ 3,880	$ 6,831	$ 2,951	$ 182	$ 327	$ 145
NorthWestern Corporation	$ 978	$ 2,482	$ 1,504	$ 135	$ 322	$ 187
Interstate Power and Light Company	$ 1,861	$ 4,568	$ 2,707	$ 117	$ 317	$ 201
Public Service Company of Colorado	$ 4,199	$ 9,077	$ 4,879	$ 149	$ 317	$ 168
Union Electric Company	$ 6,723	$ 9,852	$ 3,129	$ 173	$ 312	$ 139
Northern States Power Company - MN	$ 4,474	$ 10,446	$ 5,972	$ 122	$ 307	$ 185
KCP&L Greater Missouri Operations Company	$ 1,251	$ 2,416	$ 1,164	$ 120	$ 305	$ 185
Oklahoma Gas and Electric Company	$ 2,998	$ 7,214	$ 4,217	$ 120	$ 275	$ 154
Otter Tail Power Company	-	$ 1,242	-	-	$ 258	-
Southwestern Public Service Company	$ 1,910	$ 4,657	$ 2,747	$ 111	$ 241	$ 130
Public Service Company of Oklahoma	$ 1,840	$ 3,665	$ 1,825	$ 103	$ 203	$ 101
Entergy Texas, Inc.	-	$ 3,152	-	-	$ 175	-

Source: FERC Form 1

Peer companies have made major capital investments as well, but not to the extent of KCP&L and Westar. Notably, the three utilities with the lowest net plant per retail sales volume have a large stake in natural gas generation capacity. In 2017, Public Service Company of Oklahoma had 85% of its generation capacity in natural gas, while Southwestern Public Service Company was at 53%, and Oklahoma Gas & Electric was at 59%. These results are consistent with two differences between natural gas and coal generating units: 1) the lower capital cost to build natural gas plants; and 2) the lack of a requirement to retrofit existing gas units with emissions controls. The following exhibits provide additional details on plant investment balances by function for all of the peer companies. Exhibit 34 presents net plant balances for 2017, and Exhibit 35 shows the change in net plant from 2007 to 2017.

Exhibit 34 – 2017 Net Plant Balance per MWh of Retail Sales

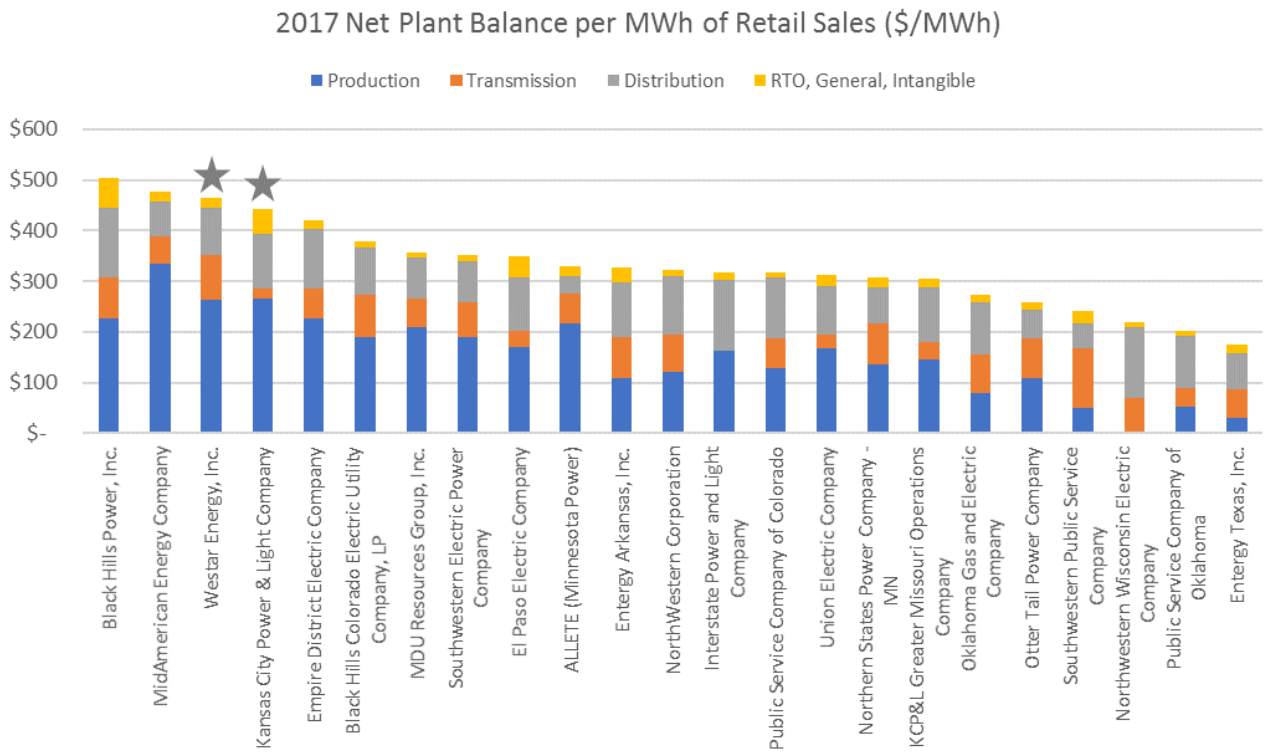
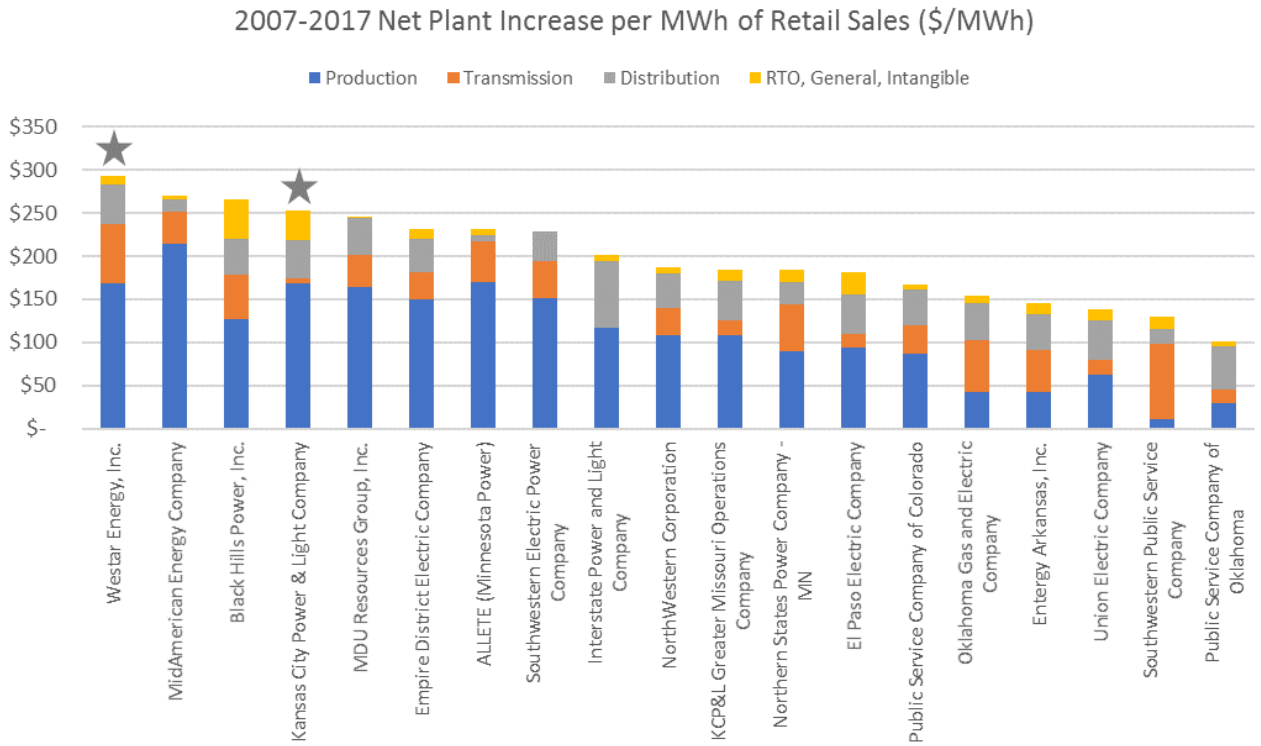


Exhibit 35 – 2007-2017 Net Plant Balance Increase per MWh of Retail Sales

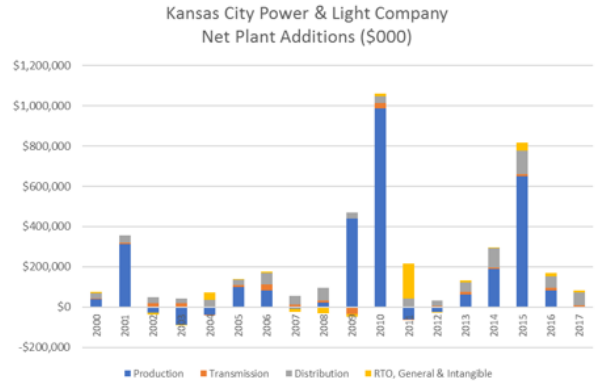


C. Production Drivers – New Plant

For both KCP&L and Westar, it was time in 2006 to embark on another build cycle to ensure adequate resources were available to provide Kansans with reliable electricity for decades to come. Like all build cycles for electric utilities, rate increases were necessary to support these investments. After extensive stakeholder input with a detailed review and approval by the Commission, KCP&L created its Comprehensive Energy Plan (CEP), which led to construction of Iatan 2, adding 850 MW of reliable coal to the regional generation portfolio. At the same time, Kansas mandates for renewable resources required the addition of wind resources. For Westar, projections of similar customer needs drove the construction of the Emporia Energy Center and acquisition of the Spring Creek Energy Center (natural gas plants). Additionally, compliance with federal and state environmental mandates required significant investments in the Companies' older coal plants to have these facilities available to serve customers' electricity demands. To comply, Westar invested approximately $1.9 billion related to La Cygne and Jeffery Energy Center, while KCP&L's Kansas portion for La Cygne, Iatan, and Montrose stations totaled $600 million. Investments in the distribution networks for system integrity and to serve new customers; transmission upgrades and expansion to bring low-cost power to the service territories; and the need to continue to modernize other customer supporting functions are also reflected in capital additions.

Exhibit 36 – KCP&L Capital Investment Summary, 2000-2017

Capital Investment Summary



Note: Data for KCP&L includes both KS and MO.

- 2017 Generation capacity profile: 4,462MW total includes 2,570MW coal (58%), 780MW (235MW CC) gas (17%), and 566MW nuclear (13%)
- 2007-2017: $3.5 billion in net plant additions (8.1% CAGR) dominated by production ($2.3b, 68%) followed by distribution ($0.6b, 17%) and general ($0.5b, 14%)
- New plant: 392MW Hawthorn (235MW CC) gas (2000), 389MW Osawatomie and West Gardner gas (2003), 101MW Spearville wind (2006), 48MW Spearville wind (2010), 482MW Iatan 2 coal (2010)
- Emissions controls: 2,236MW scrubbed coal with NOx controls
- New transmission: minor additions totaling 66 miles

Production and Transmission Capital Investment

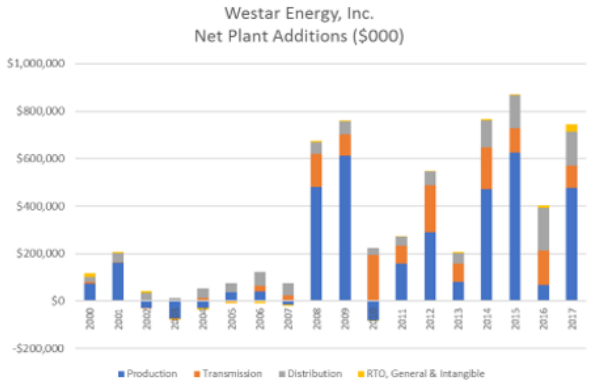
Kansas City Power & Light Company	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
New Plant in Service (MW)	392	-	-	389	-	-	101	-	-	-	530	-	1	-	-	-	-	-	1,412
Plant Retirements (MW)	-	-	-	65	-	-	-	-	-	-	-	-	-	-	-	-	170	-	235
SO2 Controls (MW)	-	564	-	-	-	-	-	-	-	490	482	-	-	-	-	699	-	-	2,236
NOx Controls (MW)	110	564	-	-	-	-	-	368	-	490	482	-	-	-	331	-	-	-	2,346
Particulates Controls (MW)	-	564	-	-	-	-	-	-	-	490	482	-	-	-	331	368	-	-	2,236
New Transmission Lines (miles)	4	-	8	21	1	8	-	20	-	-	4	-	-	-	-	-	-	-	66

Net Electric Plant ($ million)

Kansas City Power & Light Company	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	07-17 $ Inc	07-17 % Inc	% of Total Inc	CAGR
Net Production Plant	1,516	1,536	1,975	2,962	2,899	2,876	2,940	3,130	3,779	3,862	3,862	2,346	155%	68%	9.8%
Net Transmission Plant	227	239	206	233	231	237	251	258	268	282	292	65	29%	2%	2.6%
Net Distribution Plant	986	1,060	1,083	1,117	1,158	1,183	1,230	1,328	1,443	1,500	1,562	577	59%	17%	4.7%
Net RTO, General, and Intangible Plant	214	209	204	244	427	443	493	543	621	660	700	486	227%	14%	12.6%
Net Electric Plant ($ million)	2,942	3,033	3,467	4,555	4,716	4,739	4,914	5,257	6,111	6,304	6,417	3,475	118%	100%	8.1%

Exhibit 37 – Westar Capital Investment Summary, 2000-2017

Capital Investment Summary



- 2017 Generation capacity profile: 6,571MW total includes 3,213MW coal (49%), 2,286MW (198MW CC) gas (35%), 566MW nuclear (9%), and 430MW wind (7%)
- 2007-2017: $5.6 billion in net plant additions (10.1% CAGR) dominated by production ($3.2b, 58%) with smaller but significant adds in transmission ($1.3b, 23%) and distribution ($0.8b, 15%)
- New plant: 1,345MW gas (135MW CC), 430MW wind
- Emissions controls: 3,148MW scrubbed coal with NOx controls
- New transmission: additions totaling 1,181 miles

Production and Transmission Capital Investment

Westar	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
New Plant in Service (MW)	144	556	-	-	-	-	-	-	334	460	-	-	-	-	-	-	-	281	1,774
Plant Retirements (MW)	38	-	-	-	-	-	-	61	1	-	-	-	172	-	85	350	-	-	707
SO2 Controls (MW)	-	-	-	-	-	-	-	-	-	1,975	-	-	474	-	-	699	-	-	3,148
NOx Controls (MW)	-	71	-	-	-	-	-	368	-	-	-	-	1,128	49	1,782	-	-	-	3,399
Particulates Controls (MW)	-	-	-	-	-	-	-	-	654	-	-	651	1,144	-	331	368	-	-	3,148
New Transmission Lines (miles)	21	21	1	186	91	27	44	596	80	324	168	(8)	218	2	48	(4)	116	(50)	1,881

Net Electric Plant ($ million)

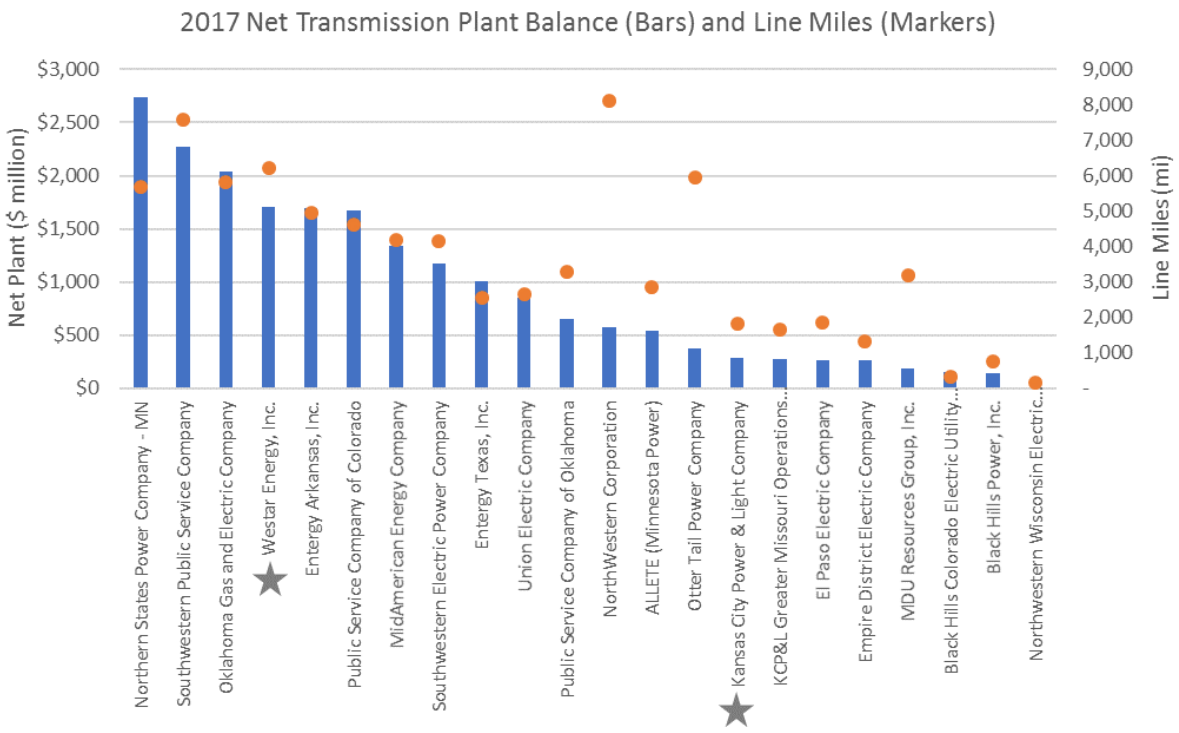
Westar Energy, Inc.	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	07-17 $ Inc	07-17 % Inc	% of Total Inc	CAGR
Net Production Plant	1,888	2,368	2,979	2,897	3,054	3,345	3,425	3,895	4,522	4,590	5,067	3,179	168%	58%	10.4%
Net Transmission Plant	408	548	639	832	908	1,106	1,185	1,361	1,464	1,608	1,701	1,293	316%	23%	15.3%
Net Distribution Plant	983	1,033	1,089	1,119	1,157	1,213	1,254	1,367	1,507	1,687	1,831	847	86%	15%	6.4%
Net RTO, General, and Intangible Plant	154	176	174	173	181	199	226	251	285	289	352	198	128%	4%	8.6%
Net Electric Plant ($ million)	3,434	4,124	4,880	5,020	5,300	5,863	6,091	6,875	7,758	8,174	8,950	5,516	161%	100%	10.1%

The Appendix to this report provides the history of rate increases resulting from these initiatives for Westar and KCP&L-KS.

D. Transmission Drivers

Westar has focused on transmission investment in recent years for three key reasons. First, to bring low-cost energy resources to the region to the benefit of Kansans. Second, to provide a means to access wind resources in the western part of the state. Third, to ensure reliable service to customers by replacing aging infrastructure. Westar's transmission system is comprised of 6,233-line miles, which serve the many rural communities throughout the state, driving a higher capital spending requirement than utilities that are more concentrated in larger cities. Typically, electric utilities with greater line miles require more spending to maintain the transmission network. Peers such as Oklahoma Gas & Electric and Entergy Arkansas have significant line miles of transmission system and relatively more spend than those with less of a transmission footprint like Union Electric and Public Service Company of Oklahoma. Exhibit 38 illustrates the point that companies with more transmission line miles generally spend more money on transmission than companies with fewer line miles.

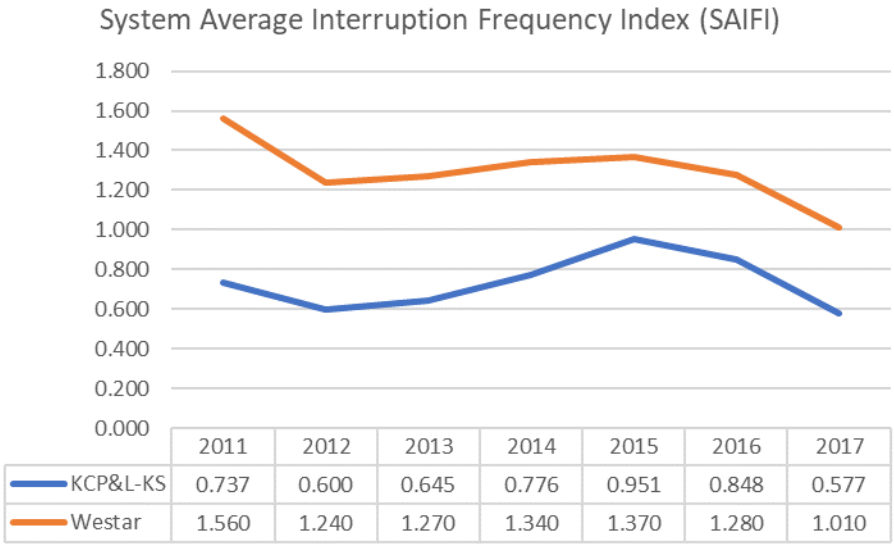
Exhibit 38 – 2017 Net Transmission Plant Balance and Line Miles for Study Peer Group



In addition to directly investing in transmission to support customers in the service territory, Westar and KCP&L are also allocated costs for SPP-directed transmission projects constructed and owned by other transmission owners in SPP. These SPP region-wide allocated costs have increased significantly over the past few years, as a number of these regionally beneficial projects have been placed in-service. The annual revenue requirements for these SPP projects that are subject to region-wide cost allocation have increased from approximately $100 million in 2012 to over $600 million in 2018. Westar and KCP&L's Kansas jurisdiction are allocated approximately 11% and 4%, respectively, for their region-wide load ratio shares of the cost of those regional projects. Those SPP-directed regional projects, however, show long-term regional benefits. Investments in these projects helped to enable lower regional power prices while providing revenue from transmission customers to support the projects. Customers realize the benefits of transmission system expansions on their bill through the fuel adjustment mechanisms when cheaper electricity is available in the SPP market. For example, this relationship can be seen in the Appendix, which depicts increases in Westar's Transmission Delivery Charge and comparing that to reductions in Westar's RECA.

E. Distribution Investments

Distribution investments have contributed to sustained reliability at KCP&L-KS and improved reliability at Westar. Westar customers have significantly benefited from increased spending in recent years to repair and replace aging infrastructure as well as an increased focus on vegetation management. Westar's initiation of a vegetation management program, known as Reliabilitree, resulted in changes to the scheduling and performing of electrical distribution line vegetation clearing and follow up system repair work. These efforts have resulted in shorter distribution system recovery times when events occur and the benefits of higher reliability outweigh the increase in capital spending and higher funding of vegetation management. From 2007 through 2017, net distribution plant increased an estimated $260 million at KCP&L-KS (45% of the $577 million for KS and MO combined) and $847 million at Westar. As measured by the System Average Interruption Frequency Index (SAIFI), this has supported sustained reliability at KCP&L-KS, where the SAIFI has consistently been below 1.000 in recent years. At Westar, the SAIFI has improved significantly from 1.560 in 2011 to 1.010 in 2017. The graph below presents the results for both companies from 2011-2017.



	2011	2012	2013	2014	2015	2016	2017
KCP&L-KS	0.737	0.600	0.645	0.776	0.951	0.848	0.577
Westar	1.560	1.240	1.270	1.340	1.370	1.280	1.010

F. Connection between timing of capital spend and rate increases

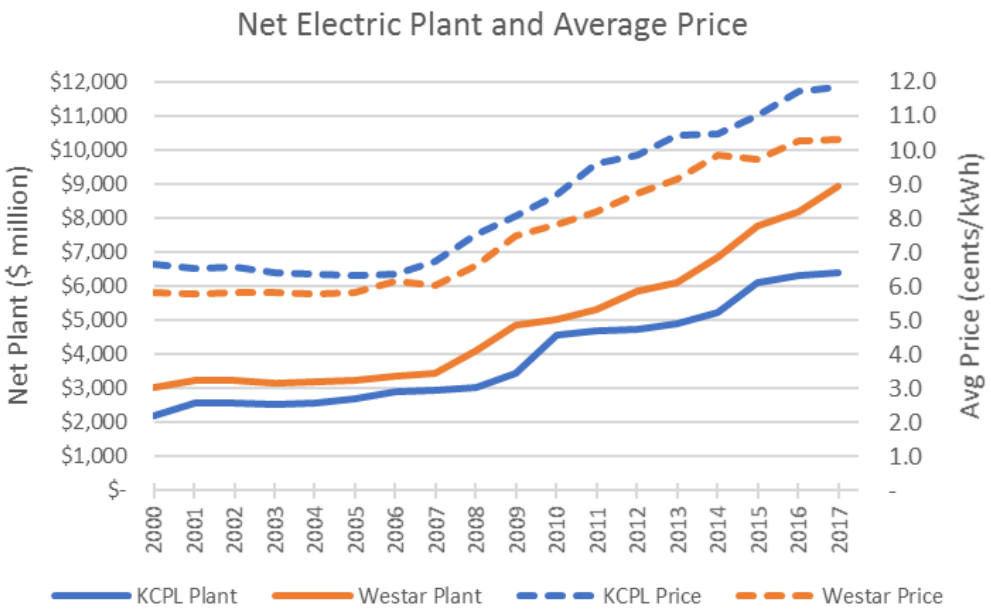
As electric utilities are required to increase capital spending to comply with environmental standards, meet renewables mandates, and add generation and transmission resources to reliably serve existing customers, the cost of major infrastructure additions that can span multiple years results in a rapid jump in rate base and the need to seek timely rate increases from customers. This happens when utilities enter a build cycle that includes major initiatives requiring significant spending. For Westar and KCP&L, this occurred in the mid-1980's with the construction of the Wolf Creek nuclear power plant.[4] The addition of this generation resource drove the need for rate increases for both utilities. Such major investments do not just serve

[4] Westar and KCP&L each own 47% of Wolf Creek Generation Station

existing customers but are intended to provide service to new customers for generations to come. As such, rate cases usually follow to financially support the utility investments.

In the case of new power plants, the extended planning and construction process does not allow for a precise match of capacity with demand and energy. To build efficiently and economically, utilities generally build generation in large increments. As a result, at the end of building cycles, utilities typically have capacity that is surplus for a time. When that surplus can be sold off-system it adds a benefit to retail customers in that it can help offset rising future costs and mitigate the frequency and level of rate increases. This was the case from 1988 through 2006 with KCP&L and Westar after the Wolf Creek addition. Starting in 2006, almost 20-years since the last major construction cycle, both KCP&L and Westar entered into another period requiring significant investment in power plants, new wind resources, and transmission system expansion. Exhibit 39 illustrates this correlation between the increase in net electric plant and increases in the average price of electricity for customers.

Exhibit 39 – Net Electric Plant Balance vs Average Price for KCP&L and Westar, 2000-2017



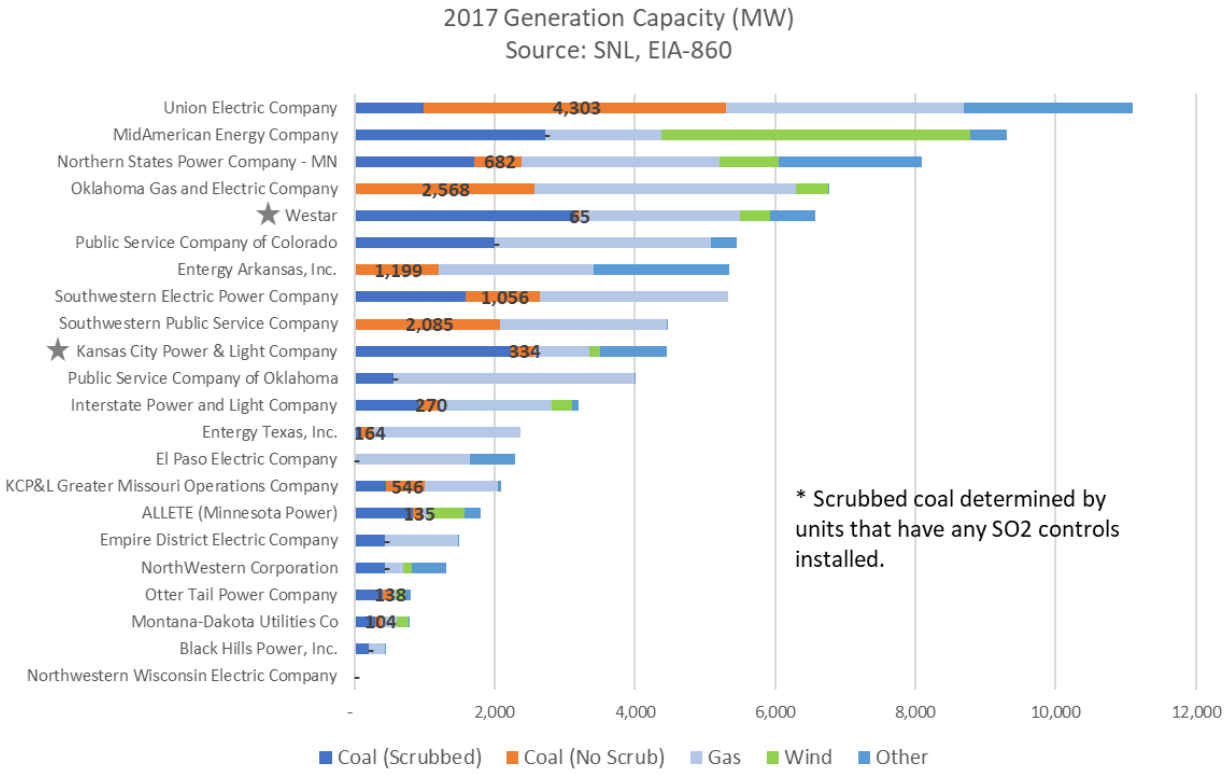
Source: SNL (KCP&L net plant is combined KS & MO)

KCP&L and Westar are not alone in embarking on an investment build cycle to address the issues mentioned above. However, some peer companies, such as Oklahoma Gas & Electric and Union Electric, are yet to undertake coal plant environmental upgrades for some of their generation units. Based on differences in the state regulatory environment and varying focus from federal agencies, these utilities may soon follow the investment path of KCP&L and Westar, resulting in other utilities' customers experiencing similar rate increases. In fact, Oklahoma Gas & Electric has a five-year capital investment plan of $3 billion and has filed a rate case in Oklahoma to recover $609 million in emissions-reducing investments at two power plants ($534 million to install scrubbers at the Sooner Power Plant and $75 million to convert

two units from coal to natural gas at the Muskogee Power Plant). Oklahoma Gas & Electric is seeking a rate increase of $77.6 million per year, or 4.4 percent, to recover its investment.

A review of generation capacity by fuel source in Exhibit 40 below shows that some utilities have a large amount of coal-fueled capacity that remains unscrubbed for SO_2 emissions. Although SO_2 is not the only emission from coal plants potentially requiring controls, the capital investment for SO_2 controls is relatively high and could therefore be a major factor in determining the future for unscrubbed plants. As utilities plan to meet future capacity needs, coal units could require additional controls or be replaced with generation capacity using other fuels. For example, Minnesota Power has approval from regulators to build a $700 million combined cycle natural gas power plant shared with Dairyland Power Cooperative that will replace coal generation and support renewables when the wind isn't blowing or the sun isn't shining.

Exhibit 40 – 2017 Generation Capacity for Study Peer Group

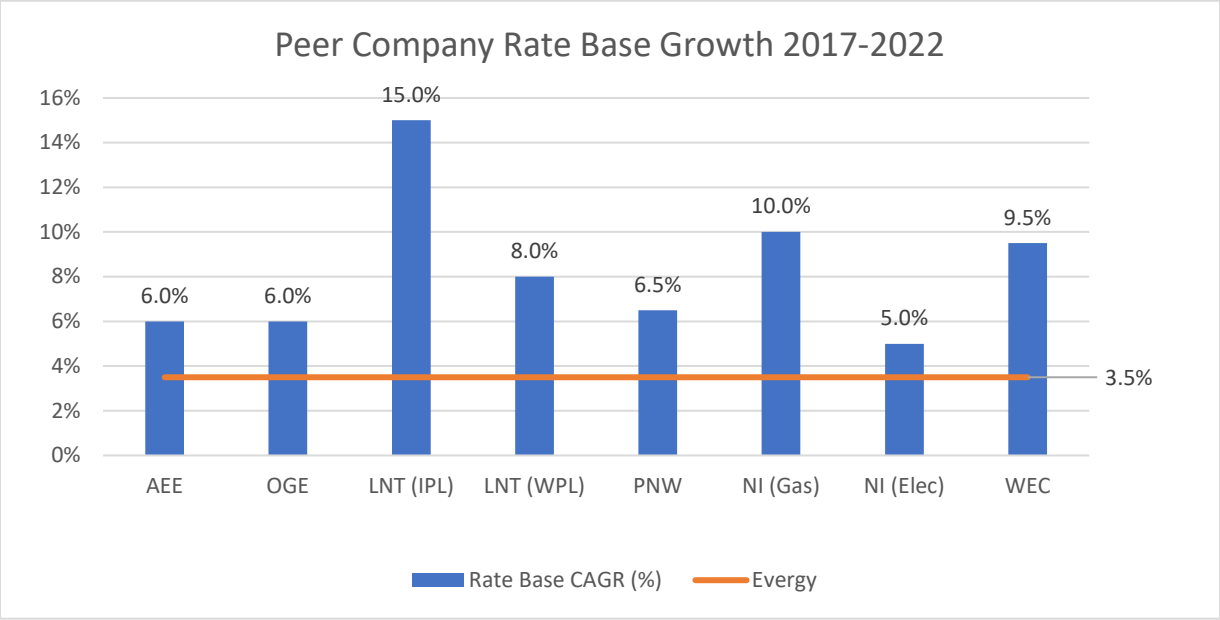


Finally, some peers are investing in renewable generation and making other infrastructure investments. MidAmerican has announced construction of additional wind resources at the cost of $3.6 billion with Wind XI to be completed in late 2020. Ameren Missouri has plans for $1 billion in grid modernization investments through 2023 and another billion in wind generation by 2020.

With all of these investments planned at other utilities, and KCP&L and Westar investments associated with the recent build cycle now complete, capital spending is projected to be less than our peers in the coming years. See Exhibit 41. Coupled with the rate case moratorium and

cost savings generated from the merger of KCP&L and Westar into Evergy, rates in states that surround Kansas should rise over the next five to ten years, while retail rates in KCP&L-KS and Westar should remain stable.

Exhibit 41 – Peer Company Projected Rate Base Growth, 2017-2022



Source: Companys' public materials via Investor Relation Presentations from November 2017

6. Impact of Federal and State Environmental Mandates

A. Impact of Federal Environmental Regulations

Federal environmental regulations impact some companies much more than others. Reflective of policy decisions to reduce the environmental impact of fossil fuel emissions, companies with a significant amount of coal as a fuel in their generation mix typically have more environmental investments than those companies with a generation mix that is higher in gas and other resources. While the percentages have continued to change over the past 10 years due to changing market dynamics previously described, Kansas has historically received a significant amount of its electricity from coal-based generation, as depicted in Exhibit 31.

As a result of having a large component of their generation mix made up of coal-based generation, Westar's and KCP&L's customers have historically benefited greatly from lower prices. These lower prices can be attributed to the mid-80s, when many of these coal-based generation units were built in response to federal policy limiting the use of natural gas as a fuel for electric generation. This benefit continued for Kansas customers for more than two decades until policies related to coal plant emissions shifted significantly. Now Westar and KCP&L are, and have been, complying with multiple environmental regulations that have been promulgated

over the past decade. Currently, prices for coal generation have increased, but Westar and KCP&L's coal-based generation remains a benefit to customers due to the less volatile nature of coal prices.

Air Regulatory Contrast Between Kansas and Neighboring States

The following sections highlight several of the major air regulations and agreements that required Westar and KCP&L to install additional emission controls, in some cases ahead of surrounding states, to reduce emissions. It is important to note, the regulatory impact to each state can vary greatly (customer prices and air quality) and, in some cases, not every state is subject to the same air regulatory obligations.

Kansas City Ozone Nonattainment

In 2007, as part of the regionally developed Clean Air Action Plan for the Kansas City Region, Westar and KCP&L installed selective catalytic reduction (SCR) equipment on La Cygne Generating Station Unit 1. The purpose of the Clean Air Action Plan was to ensure the Kansas City metropolitan area remained in attainment with the Ozone National Ambient Air Quality Standards (NAAQS). The installation of a SCR on La Cygne Unit 1 was one of many regional options implemented by industry and local governments to maintain attainment of the Ozone NAAQS in the Kansas City area. If the Kansas City metropolitan area had been designated as nonattainment, the negative economic impact to the local and surrounding areas could have been substantial.

New Source Review Consent Decree

EPA began investigating Westar in December 2002, along with three other utilities located in the neighboring EPA Region VII states of Iowa, Nebraska and Missouri. This investigation was part of a nation-wide initiative by EPA to pursue coal plants by alleging Clean Air Act violations. Through this initiative, EPA's primary goal was to require the installation of additional emission controls at coal plants. Because Westar owned one of the largest coal plants in EPA Region VII, Jeffrey Energy Center, EPA decided to focus its efforts on Westar. For seven years Westar defended its emissions reduction plan and worked with EPA on a settlement agreement; however, in February 2009, the Department of Justice, representing EPA, filed suit against Westar.

At the time, Westar was pursuing a fleet-wide settlement agreement; however, EPA wanted three SCRs to be installed at Jeffrey Energy Center to secure a fleet-wide agreement. To avoid the burden of unnecessary costs to our customers due to installing three SCRs at Jeffrey Energy Center, Westar chose to settle with EPA with a Jeffrey Energy Center only settlement. This agreement allowed Westar to avoid approximately $480 million in additional costs at Jeffrey Energy Center that would otherwise be mandated by EPA.

In March 2010, Westar entered into a Consent Decree to settle alleged violations of the Clean Air Act at Jeffrey Energy Center. The Jeffrey Energy Center Consent Decree required the installation of a Flue Gas Desulfurization (FGD) system, a SCR, other NOx controls as well as Particulate Matter controls. As part of the settlement process, Westar proposed a schedule that

allowed for the installation of controls over an extended period of time, resulting in reduced costs for design, labor and materials.

While no other electric utilities in neighboring states were required to install controls to comply with a New Source Review (NSR) Consent Decree during the 2010 timeframe, all utilities are subject to these Clean Air Act standards, and several neighboring electric utilities are now being pursued by EPA for alleged Clean Air Act violations. Through careful planning and consideration, Westar installed controls that allowed for economical compliance with the Consent Decree, as well as future air regulations including the Mercury and Air Toxics Standards (MATS), Cross-State Air Pollution Rule (CSAPR) and Regional Haze.

Regional Haze Rule

In 1999, EPA finalized the Regional Haze Rule. Under the Regional Haze Rule, states are required to develop plans to reduce the formation of human-made haze in national parks and wilderness areas. The goal of the Regional Haze Rule is to return these areas to their natural visibility conditions by 2064. Provisions in the Rule require certain industrial facilities to install Best Available Retrofit Technology (BART) to reduce haze forming pollutants (i.e. NO_x, SO_2 and Particulate Matter). Through the Regional Haze process, it was determined that emissions from Westar and KCP&L facilities contributed to visibility impairment at nearby wilderness areas. In 2007, both Westar and KCP&L entered into agreements with the State of Kansas to satisfy their obligations under the Regional Haze Rule. These agreements required the addition of SO_2, NO_x and particulate matter controls at Jeffrey, Lawrence and Tecumseh Energy Centers and at La Cygne Generating Station. These add-on controls included SCR, Low NO_x Burners, FGD systems, fabric filter baghouses and rebuilt electrostatic precipitators.

Mercury and Air Toxics Standards (MATS) Rule

In 2012, EPA finalized air toxic standards for coal-fired electric generating units. These standards are known as the Mercury and Air Toxics Standards (MATS) Rule. The MATS Rule required Westar and KCP&L to reduce mercury, particulate matter and SO_2 emissions from Jeffrey, Lawrence and Tecumseh Energy Centers and La Cygne Generating Station. While the SO_2 and particulate matter limitations were met utilizing the add-on controls previously installed to meet the obligations of the Jeffrey NSR Consent Decree and Regional Haze Rule, activated carbon injection (ACI) was added to each unit to meet the MATS mercury emission reduction requirements.

Cross-State Air Pollution Rule

The Cross State Air Pollution Rule was finalized in 2010 and required the reduction of NO_x and SO_2 emissions from affected sources. To comply on the Rule's initial implementation date, Kansas was required to reduce emissions significantly more than neighboring states. If the Flue Gas Desulfurization System hadn't already been in place because of the Jeffrey Energy Center NSR Consent Decree and Regional Haze Rule, the Kansas SO_2 reduction requirements would have been much higher and expensive to comply with. Kansas was required to reduce NO_x by approximately 36%, as compared to the modest reductions required by other neighboring

states. Please refer to Tables 1 and 2 in Exhibit 42 for the required SO_2 and NOx state-wide % reductions.

Exhibit 42 – State by State Comparison of SO2 and NOx Reductions Required Under CSAPR

Table 1 State by State Comparison of SO_2 CSAPR Percent Reductions			
	2010 Emissions	2012 Allocations	% reduction required to comply from 2010 to 2011
AR	67,084	Not Subject	N/A
CO	45,862	Not Subject	N/A
IA	104,650	107,085	-2.33%
KS	**45,251**	**41,980**	**7.23%**
MO	236,217	207,466	12.17%
NE	64,184	68,162	-6.20%
OK	85,135	Not Subject	N/A

Table 2 State by State Comparison of NO_x CSAPR% Reductions			
	2010 Emissions	2012 Allocations	% reduction required to comply from 2010 to 2011
AR	18,299	15,110	17.43%
CO	54,876	Not Subject	N/A
IA	44,443	38,335	13.74%
KS	**48,947**	**31,354**	**35.94%**
MO	58,364	52,400	10.22%
NE	37,417	30,039	19.72%
OK	34,917	36,567	-4.73%

Billions of dollars in capital expenditures for environmental retrofits in states dependent on coal-based generation, such as Kansas, had the impact of reducing emissions but also raised electric utility prices. States with a high concentration of natural gas in the generation mix benefited from not having to make the same kinds of significant investments to comply with these environmental mandates. Other states like Oklahoma seem to have taken a higher-risk approach by "rolling the dice" and didn't make environmental investments, likely hoping pending regulation wouldn't be approved. Regardless of the intent, these states benefited greatly from the 2016 election of President Trump and the resulting change in policy within federal environmental agencies.

In total, federal environmental mandates, FERC regulated transmission, and changes in fuel expenses are responsible for approximately 60% of the increases Westar and KCP&L customers have seen during the past 10 years. Exhibits 43 and 44 illustrate these environmentally

mandated investments, which comprised about one cent of the current retail rate for KCP&L-KS and Westar customers in 2017.

Exhibit 43 – KCP&L-KS Estimated Revenue Requirement Impact of Environmental Investments

KCP&L-KS
Estimated Revenue Requirement (RR) Impact of Environmental Investments

Air Quality Control System (AQCS) Plant Investment	Total Plant Investment ($ million)	Estimated RR ($ million)	RR per Retail kWh (cents/kWh)*
Iatan 1&2	$ 305.9	$ 28.2	0.45
LaCygne 1&2	$ 286.5	$ 32.9	0.53
Montrose 2&3	$ 7.5	$ 0.8	0.01
Total	$ 600.0	$ 62.0	0.99

** RR per retail kWh estimated using 2017 total retail sales volume of 6,245,053 MWh.*

The $600 million of plant in service is the KCP&L-KS allocated share of the $1.3 billion total for KCP&L Kansas and Missouri. The $1.3 billion total investment at KCP&L (KS & MO) represents 27% of the $4.8 billion total electric plant investment and 39% of the $3.3 billion of total production investment for 2008 through 2017.

Exhibit 44 – Westar Estimated Revenue Requirement Impact of Environmental Investments

Westar Energy
Estimated Revenue Requirement (RR) Impact of Environmental Investments

Air Quality Control System (AQCS) Plant Investment	Total Plant Investment ($ million)	Estimated RR ($ million)	RR per Retail kWh (cents/kWh)*
Environmental Cost Recovery Rider	$ 1,217	$ 120.8	0.63
LaCygne	$ 601	$ 74.9	0.39
Total	$ 1,818	$ 195.7	1.01

** RR per retail kWh estimated using 2017 total retail sales volume of 19,290,184 MWh.*

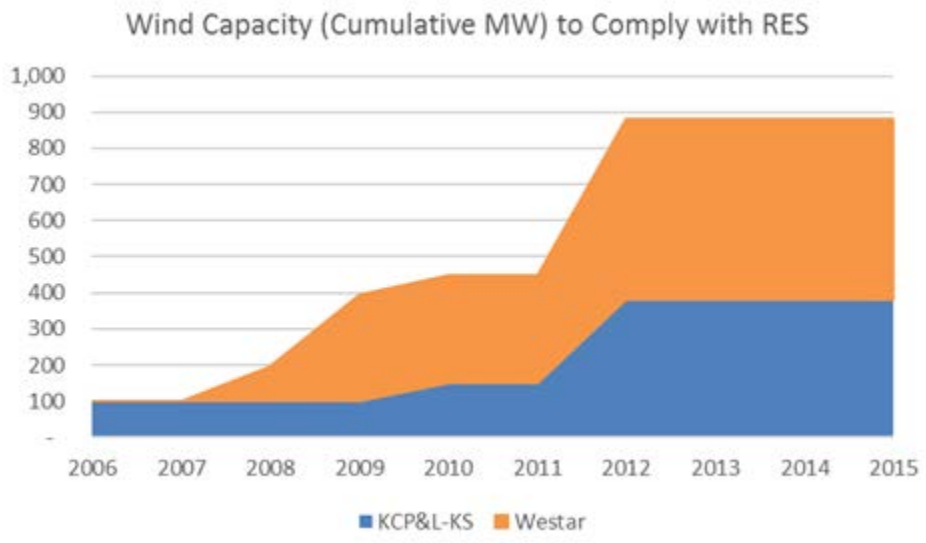
The $1.8 billion investment at Westar represents 27% of the $6.6 billion total electric plant investment and 47% of the $3.8 billion of total production investment for 2008 through 2017.

B. Impact of State Environmental Regulations

In addition to federally mandated environmental regulations, the State of Kansas has also imposed mandates for renewable energy. Some Company investments and costs were driven by state legislative mandates on renewable energy, even though the renewable generation resource may not have been economical at the time.

In Kansas, a renewable energy mandate existed for several years during this period, until the Legislature repealed it in 2015. Exhibit 45 illustrates investments (both wind ownership and power purchase agreements) made to comply with the Kansas Renewable Portfolio Standard mandate during the time it was in effect.

Exhibit 45 – Wind Capacity to Comply with Renewable Energy Standard



It should also be noted that for some other states that may have had similar state mandates to Kansas, general taxpayers, not retail customer, pay for a state subsidy for wind. For example, in Iowa, the Iowa Code Chapter 476B and 476C established a state production tax credit of one and one-half cents per kilowatt-hour for wind energy.

C. Emissions Reductions

Although Kansas customers have been impacted by increased rates resulting from the federal and Kansas environmental mandates, they are benefitting from reduced emissions resulting in cleaner air. Exhibits 46 and 47 below illustrate how KCP&L and Westar lead peer companies in significant reductions in sulfur dioxide and nitrogen oxide emissions.

Exhibit 46 – SO_2 Emissions Rates for Study Peer Group, 2007-2017

Westar and KCP&L SO_2 emissions rates 80% lower than Group Average

SO2 Emissions (lb/MWH)	*2007*	*2017*	*'17 vs '07*
ALLETE (Minnesota Power)	6.4	0.7	-89%
Black Hills Power, Inc.	2.5	1.3	-48%
El Paso Electric Company	0.2	0.0	-98%
Empire District Electric Company	14.5	0.5	-97%
Entergy Arkansas, Inc.	2.0	1.1	-44%
Entergy Texas, Inc.		1.5	
Interstate Power and Light Company	9.2	1.6	-83%
Kansas City Power & Light Company	**3.7**	**0.3**	**-91%**
KCP&L Greater Missouri Operations Company	8.0	2.0	-75%
MidAmerican Energy Company	5.0	1.1	-78%
Northern States Power Company - MN	2.5	0.3	-87%
NorthWestern Corporation	7.6	0.2	-97%
Oklahoma Gas and Electric Company	4.0	3.0	-24%
Otter Tail Power Company	7.6	4.3	-43%
Public Service Company of Colorado	4.1	0.7	-83%
Public Service Company of Oklahoma	4.6	1.6	-65%
Southwestern Electric Power Company	3.8	2.5	-33%
Southwestern Public Service Company	3.7	4.3	16%
Union Electric Company	6.1	3.0	-52%
Westar Energy	**5.2**	**0.3**	**-94%**

Source: EPA CEMS Database (Continuous Emission Monitoring Sytem) and EIA 923

Comparison with Study Peer Group	***2007***	***2017***
Group Average	5.3	1.5
KCP&L vs Average	-30%	-78%
Westar vs Average	-1%	-80%

Exhibit 47 – NOx Emissions Rates for Study Peer Group, 2007-2017

Westar and KCP&L NO_X emissions rates 20% and 50% lower than Group Average

NOx Emissions (lb/MWH)	*2007*	*2017*	*'17 vs '07*
ALLETE (Minnesota Power)	4.2	0.9	-78%
Black Hills Power, Inc.	1.8	1.8	-1%
El Paso Electric Company	1.3	0.8	-43%
Empire District Electric Company	5.1	0.7	-86%
Entergy Arkansas, Inc.	0.9	0.6	-38%
Entergy Texas, Inc.		1.2	
Interstate Power and Light Company	3.8	1.1	-71%
Kansas City Power & Light Company	**2.1**	**0.5**	**-77%**
KCP&L Greater Missouri Operations Company	5.6	1.2	-78%
MidAmerican Energy Company	1.8	0.8	-56%
Northern States Power Company - MN	2.7	0.5	-80%
NorthWestern Corporation	2.3	0.2	-93%
Oklahoma Gas and Electric Company	3.3	1.2	-63%
Otter Tail Power Company	6.8	2.3	-67%
Public Service Company of Colorado	3.4	0.8	-76%
Public Service Company of Oklahoma	3.5	1.6	-55%
Southwestern Electric Power Company	2.0	1.4	-31%
Southwestern Public Service Company	2.2	1.4	-35%
Union Electric Company	1.0	0.9	-18%
Westar Energy	**2.9**	**0.8**	**-72%**

Source: EPA CEMS Database (Continuous Emission Monitoring Sytem) and EIA 923

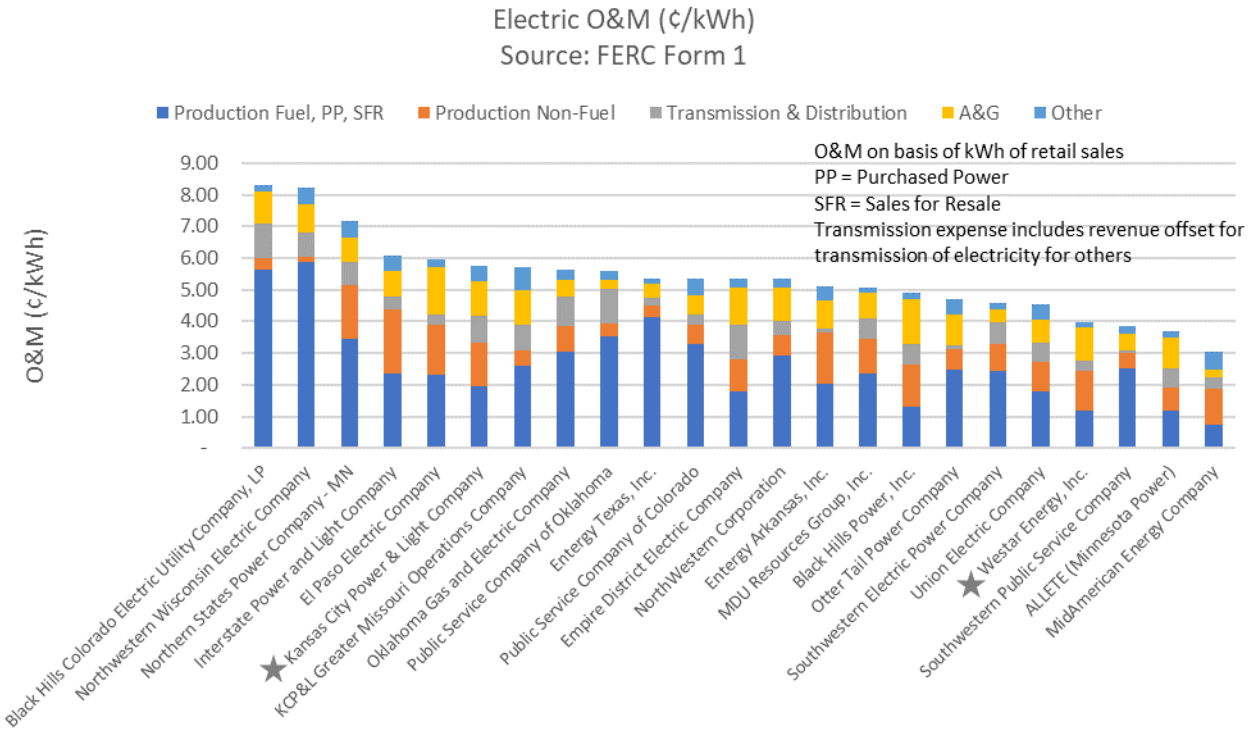
Comparison with Study Peer Group	***2007***	***2017***
Group Average	3.0	1.0
KCP&L vs Average	-29%	-53%
Westar vs Average	-3%	-20%

7. Operations & Maintenance (O&M) Spending

A. Comparison of Results with Peer Companies

When looking at the information on O&M spend by MWh (see Exhibit 48 below), both KCP&L and Westar are at consistent levels within their peer groups. Analyzing data by a MWh basis assists in comparing data across companies (MWh data has not been weather normalized).

Exhibit 48 – Electric O&M per MWh of Retail Sales



B. Drivers for Cost Differences

Generation capacity and production mix can have a significant impact on O&M costs. Generally, companies that have a large generation fleet will have the O&M costs associated with that generation, but they benefit from less variable prices when compared to purchasing power on a short-term basis. Types of fuel used for generation also factor into O&M costs. For example, coal-based generation has higher O&M costs than gas-based generation.

Geography can also cause differences in O&M. Rural areas often have higher costs to serve than urban areas, due to the size of the service area. The size of the service area contributes to more miles of lines to serve customers.

Economies of scale also play a part in comparing companies. A smaller company, when compared to a larger company, will have higher O&M costs on a MWh basis because they have the same needs for back-office systems and other items that cost the same regardless of the size of a company.

Administrative and General (A&G) expenses are the costs not directly associated with generating, transmitting or delivering power to customers. These costs are incurred by utilities to provide support to the operations of the Company. These costs include, but are not limited to, regulatory, finance, accounting, information technology, human resources, and legal labor and non-labor expenses.

Total A&G per retail kWh is 1.1 cents and 1 cent for KCP&L and Westar, respectively. Slower growth in A&G expenses, including salaries and wages, by Westar and KCP&L, as compared to the peer group average, in recent years is a mitigating factor in current rates. As the companies have worked to contain cost increases, the percentage of A&G to total operating cost is lower today than 10 years ago.

Comparing A&G costs across utilities is challenging, because the recording of expenses to A&G by utilities is subjective and open to interpretation under the FERC Uniform System of Accounts. Not every cost is recorded to the same FERC account for every utility. For example, one utility might record compensation to a FERC *A&G* account where another utility made the interpretation to record the same expense to a FERC *operations* account. In addition, a FERC Form 1 comparison does not consider that utilities engage in different activities, such as energy efficiency programs. It is common for a company to undertake initiatives that other utilities don't for various reasons. Differences in state or local policies, management decisions on the level of support for initiatives like customer programs, or other issues that may be utility specific drive cost variances that are difficult to identify without having an insight into the operations of those utilities. Such initiatives require administrative support that other utilities would not incur and would not be recorded on FERC Form 1.

An example would be KCP&L's energy efficiency programs, which have provided significant benefits and cost savings to customers. At the same time, the energy efficiency programs require administrative and management support. Depending on the programs in place or energy efficiency strategy of the utility, a utility may require more administrative and management support based on the number of products and services it offers. Another example is the provision of solar rebates by a utility. In these examples, KCP&L reports administrative support costs for energy efficiency and solar rebate programs in its FERC Form 1, whereas a utility that does not have extensive energy efficiency or solar rebate programs would record little or no costs in this area.

Other types of initiatives that vary by amount for utilities are Federal and State environmental and safety regulations. These mandated requirements impact utilities differently. A good example would be costs to comply with Nuclear Regulatory Commission ("NRC") regulations. Utilities with ownership in nuclear generation will have O&M costs to comply with NRC requirements, but utilities with no ownership in nuclear generation will not. Because of this differing impact, utilities need different levels of support to ensure compliance with the regulations mandated by Federal and State governments.

Facility agreements also can impact classification of costs. For example, KCP&L leases the headquarters at 1200 Main Street. Therefore, KCP&L records its jurisdictional share of lease expense to FERC account 931. Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri") and Empire own their corporate headquarters, and the costs of those buildings are included in rate base. In addition, because Ameren Missouri and Empire rate base their corporate headquarters, Ameren Missouri and Empire earn a return on the investment. Ameren Missouri and Empire are required by the FERC Uniform System of Accounts to record depreciation expense on their headquarters building in FERC account 403, which is not a component of A&G. KCP&L is required to record the lease expense to FERC Account 931 as prescribed by the FERC Uniform System of Accounts.

The amortizations of regulatory assets and liabilities are mandated by each company's regulatory commissions and are outside of the Companies' control. When these types of costs are deemed prudent for recovery or refund, the Commission determines the time period to recover or refund these costs. As the recovery of these assets is determined in separate rate cases, the time period to recover these costs varies among utilities. The difference in time recovery would impact the amount of A&G expense that a company recognizes in a given year.

Additionally, pension costs for ratemaking purposes, upon which recovery from customers is based, includes various provisions to protect customers from fluctuations in capital market returns and discount rates. The asset value for purposes of determining the pension cost for ratemaking purposes is based on a five-year smoothing of gains and losses. Unrecognized actuarial gains or losses are amortized over a 10-year period. Thus, customers are not immediately impacted by swings in asset values and discount rates. Further, KCP&L and Westar fund the pension trusts each year for the greater of the current pension cost for ratemaking purposes or the amount necessary under the Pension Protection Act of 2006 (PPA) to avoid benefit restrictions. Impacts to other utilities would depend on their specific situations and the regulatory treatment in those states.

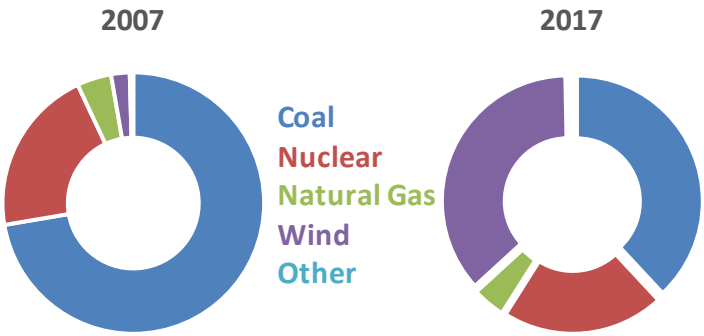
It should also be noted that the O&M costs identified in the study for Westar and KCP&L do not reflect the Kansas portion of an estimated $160 million in future annual merger savings or the estimated $8.8 million of non-fuel O&M cost savings to Kansas customers from the retirement of KCP&L's Montrose Generating Station. This means that KCP&L's and Westar's relative O&M costs should continue to improve over the next five to ten years relative to other utilities in the study group and improve overall rate competitiveness for Kansas.

8. Generation Capacity & Production Mix

A. Overview on Generation Capacity Mix of Peer Companies

Kansas has relied heavily on coal as a fuel for electricity generation, which historically has been very economic for customers. However, this reliance on coal has changed dramatically in the past 10 years. Based on EIA data, net generation from coal decreased from 72.3% to 38.1% of the Kansas total from 2007 to 2017. This 34% drop in coal's share of generation was replaced almost entirely by wind, which moved from 2.3% to 36.5%. See Exhibit 49.

Exhibit 49 – Kansas Net Generation by Fuel Source, 2007 vs 2017

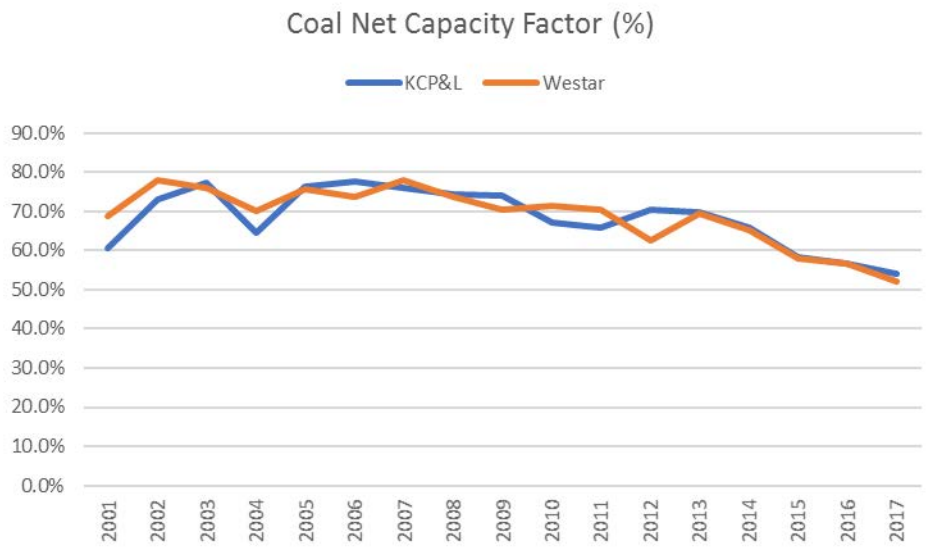


Year	Coal	Nuclear	Natural Gas	Wind	Other
2007	72.3%	20.7%	4.3%	2.3%	0.4%
2017	38.1%	20.9%	4.2%	36.5%	0.3%
Change	-34.3%	0.2%	0.0%	34.2%	-0.1%

Source: EIA-906, EIA-920, and EIA-923

The impact of wind on KCP&L and Westar coal generation is illustrated in Exhibit 50, and shows the coal net capacity factor declining over the period from the mid-to-high 70s to the low 50s as utilities throughout the SPP Market dispatch their generation resources on an economic basis (lowest production cost units run first).

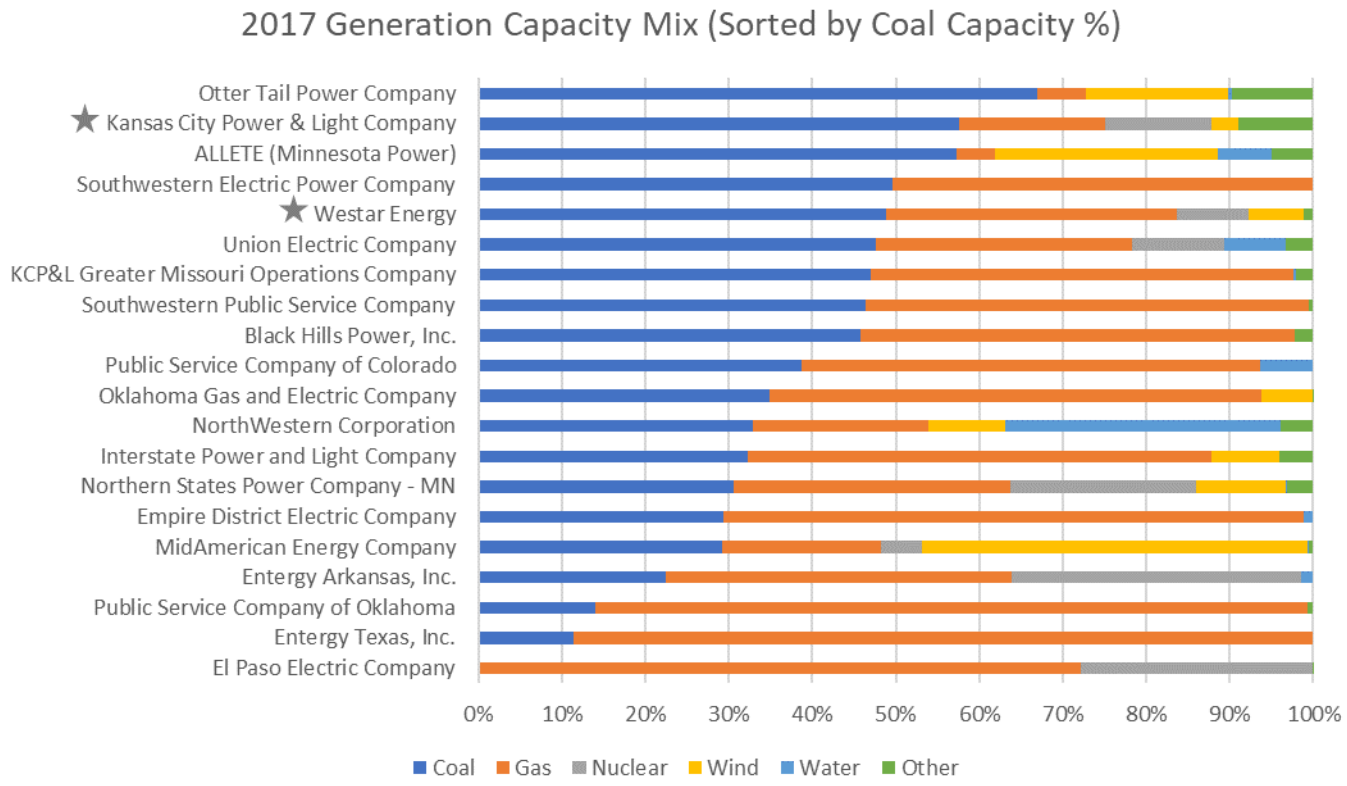
Exhibit 50 – Coal Net Capacity Factor for KCP&L and Westar, 2001-2017



Source: EIA-860

Historically, Westar and KCP&L customers have benefited from low-cost coal as a fuel source. For many years, customers have benefited from having baseload coal-based generation capacity. In the last few years, the economics have changed somewhat, where surrounding state fuel costs have gone down. The replacement of coal-based energy has coincided with a drop in natural gas prices and a resultant decline in market energy prices that has eroded margins for energy. The lower revenue from coal-based energy sales has reduced the benefit that Kansas customers enjoyed for decades and contributed to disproportionate price increases for Kansas utilities compared to neighboring and regional states with lower investments in coal-based generation capacity. On the other hand, utilities that have relied heavily on gas-based generation have seen the direct benefit from lower gas prices. Exhibit 51, which does not account for wind power purchase agreements (PPAs), illustrates the high concentration of coal-based capacity for KCP&L and Westar relative to other companies.

Exhibit 51 – Generation Capacity Mix, 2017



Source: EIA-860

When wind PPAs are included, the generation capacity mix changes significantly for both KCP&L and Westar. While the wind ownership percentage is in single digits excluding PPAs, adding PPAs to the mix pushes the wind percentage of total generation capacity to 19% for KCP&L and 22% for Westar. Exhibits 52 and 53 show the 2017 generation capacity mix for the companies with wind PPAs included. As an indication of the growth in wind, these percentages in 2007 were only 3% for KCP&L and less than 1% for Westar.

Exhibit 52 – 2017 KCP&L Generation Capacity with Inclusion of Wind PPAs

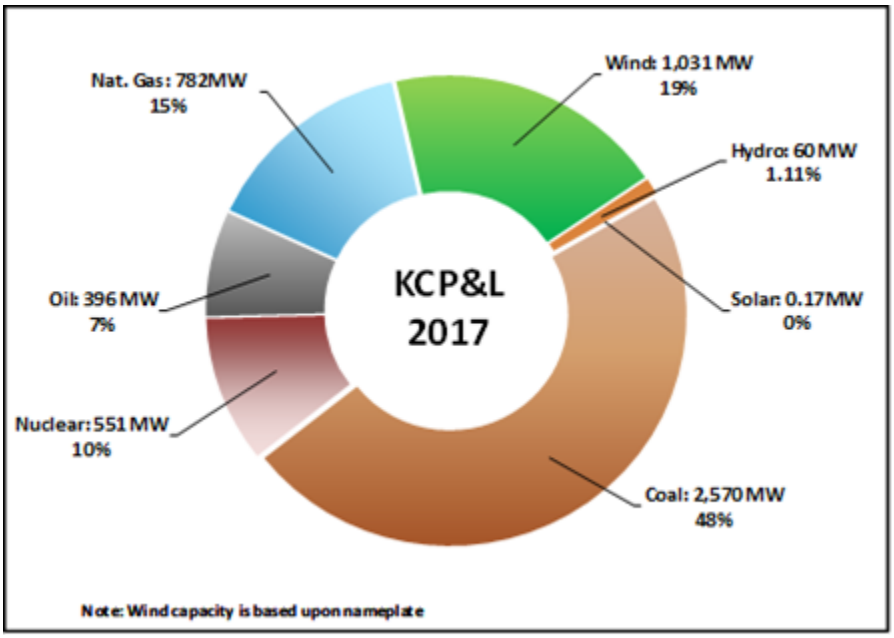
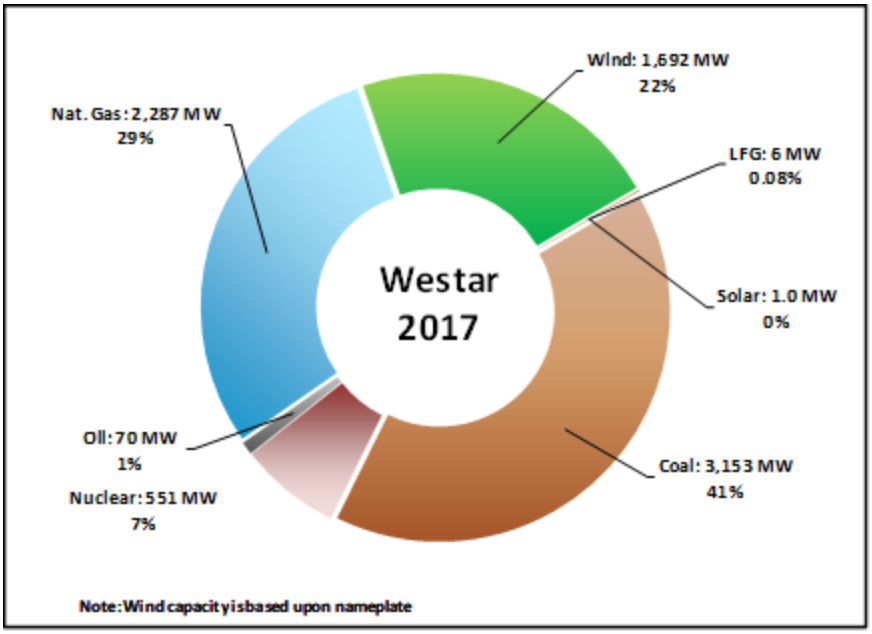


Exhibit 53 – 2017 Westar Generation Capacity with Inclusion of Wind PPAs



9. Customer Sales Volume Mix

A. Customer Trends

As shown in Exhibits 24 and 25, total retail sales volume declined 5.5% for KCP&L-KS and 4.1% for Westar from 2007 to 2017. These rates of decline are higher than most of the companies in the study peer group, many of which experienced growth. While declining sales places pressure on rates due to fixed costs recovery over lower volumetric sales, another important factor to consider in comparing average prices is the customer volume mix. Residential, commercial, and industrial customers have different load profiles (maximum hourly usage and average hourly usage) and service requirements, which produces differences in the cost to provide service. In general, residential customers are more costly to serve, followed in order by commercial then industrial customers. While industrial customers may use large quantities of electricity at fairly constant levels supplied at higher voltages from the transmission grid, residential and commercial customers use much lower quantities with more variable demand at lower voltages that require additional equipment.

Recognizing the potential price impact of customer types, Exhibit 54 presents the retail sales volume mix by customer sector and average sale per customer within each sector for the study peer group. The electricity volume for the combined peer group is spread evenly across customer classes with 31% residential, 37% commercial, and 31% industrial. However, the volume mix at the individual utility level varies greatly, with residential sales ranging from 11% to 67% of total volume, commercial sales from 14% to 73%, and industrial sales from 0% to 74%. Westar's volume mix is somewhat evenly distributed among the customer classes at 32% residential, 39% commercial and 29% industrial. However, KCP&L-KS, located in a mostly suburban area, is heavily concentrated in residential (43%) and commercial (52%) with a small component industrial (5%).

Exhibit 54 – 2017 Retail Volume Mix by Sector and Average Sales per Customer

Source: EIA-861 Bundled Retail Sales

	Total Retail Electric Volume (MWh)	State	Retail Customers (2017)	2017 Volume Mix			2017 Average Sales per Customer (kWh/mo)		
				Res	Com	Ind	Res	Com	Ind
1	*ALLETE (Minnesota Power)*	*MN*	145,857	11%	14%	74%	689	4,634	1,431,152
2	*Black Hills Colorado Electric Utility Company, LP*	*CO*	96,118	32%	45%	23%	602	5,991	623,220
3	*Black Hills Power, Inc.*	*SD*	69,364	34%	52%	13%	751	4,960	3,263,000
4	*El Paso Electric Company*	*TX*	318,055	35%	50%	16%	632	7,157	2,037,385
5	*Empire District Electric Company*	*AR*	4,536	23%	22%	55%	879	3,941	873,657
6	*Empire District Electric Company*	*KS*	9,667	46%	26%	28%	1,030	3,310	102,685
7	*Empire District Electric Company*	*MO*	152,951	39%	39%	22%	1,006	5,414	262,432
8	*Empire District Electric Company*	*OK*	4,680	32%	40%	28%	1,046	5,467	294,528
9	*Entergy Arkansas, Inc.*	*AR*	708,855	35%	29%	36%	1,029	5,356	26,783
10	*Entergy Texas, Inc.*	*TX*	446,771	32%	27%	42%	1,219	7,957	113,747
11	*Interstate Power and Light Company*	*IA*	489,605	24%	29%	47%	725	4,074	373,823
12	***Kansas City Power & Light Company***	***KS***	**254,913**	**43%**	**52%**	**5%**	**1,001**	**9,330**	**26,609**
13	*Kansas City Power & Light Company*	*MO*	284,495	30%	52%	18%	822	11,161	131,811
14	*KCP&L Greater Missouri Operations Company*	*MO*	326,777	43%	41%	16%	983	6,850	433,439
15	*MDU Resources Group, Inc.*	*ND*	92,862	37%	54%	10%	805	6,535	167,288
16	*MDU Resources Group, Inc.*	*SD*	8,576	46%	48%	5%	863	2,871	81,396
17	*MidAmerican Energy Company*	*IA*	680,025	25%	21%	54%	792	4,078	578,426
18	*MidAmerican Energy Company*	*SD*	4,963	24%	20%	56%	1,142	4,461	501,322
19	*Northern States Power Company - MN*	*ND*	93,955	34%	49%	17%	777	6,909	1,268,566
20	*Northern States Power Company - MN*	*SD*	92,931	35%	48%	18%	755	7,025	1,353,007
21	*Northern States Power Company - MN*	*MN*	1,279,507	28%	44%	27%	615	7,956	1,337,681
22	*NorthWestern Corporation*	*SD*	63,337	35%	45%	20%	905	4,439	441,160
23	*Northwestern Wisconsin Electric Company*	*MN*	86	67%	33%	0%	499	670	
24	*Oklahoma Gas and Electric Company*	*AR*	66,826	27%	36%	38%	1,016	7,023	211,130
25	*Oklahoma Gas and Electric Company*	*OK*	771,427	34%	41%	25%	1,027	7,996	54,799
26	*Otter Tail Power Company*	*MN*	60,858	20%	42%	38%	914	7,269	7,482,826
27	*Otter Tail Power Company*	*ND*	58,710	33%	64%	3%	1,089	7,295	2,117,208
28	*Otter Tail Power Company*	*SD*	11,479	27%	73%	0%	1,089	9,554	
29	*Public Service Company of Colorado*	*CO*	1,459,117	32%	45%	23%	610	5,054	1,585,343
30	*Public Service Company of Oklahoma*	*OK*	550,022	33%	36%	31%	1,048	7,507	76,182
31	*Southwestern Electric Power Company*	*AR*	118,885	29%	35%	36%	903	6,145	190,328
32	*Southwestern Electric Power Company*	*TX*	185,031	29%	32%	40%	1,125	6,013	54,496
33	*Southwestern Public Service Company*	*TX*	269,339	17%	25%	58%	914	4,964	4,510,393
34	*Union Electric Company*	*MO*	1,215,790	40%	46%	14%	1,000	7,624	91,367
35	***Westar (KGE/KPL)***	***KS***	**706,788**	**32%**	**39%**	**29%**	**834**	**7,211**	**102,236**

A review of the average use per customer yields similar findings, with a wide range from high to low for all customer classes. The range for the industrial class is especially large. For companies that have industrial sales, KCP&L-KS has the absolute lowest sales per customer average of 26,609 kWh/month; Westar is somewhat higher at 102,236 kWh/month. For comparison, the simple average for the group is 976,000 kWh/month, with many companies well above one million and the highest at almost 7.5 million kWh/month.

The effect of customer mix is evident in Exhibit 55, which is sorted on the 2017 total retail average price from low to high. The companies with the 10 lowest prices all have industrial sales volumes that are higher than the 31% average for the study group. Additionally, many of these 10 companies have experienced sales growth over the 2007-2017 period. Finally, five of the 10 companies have a significant percentage of generation from gas. Although an assessment of the contribution of each of these factors is beyond the scope of this study, the shared characteristics of the lowest-priced utilities is noteworthy.

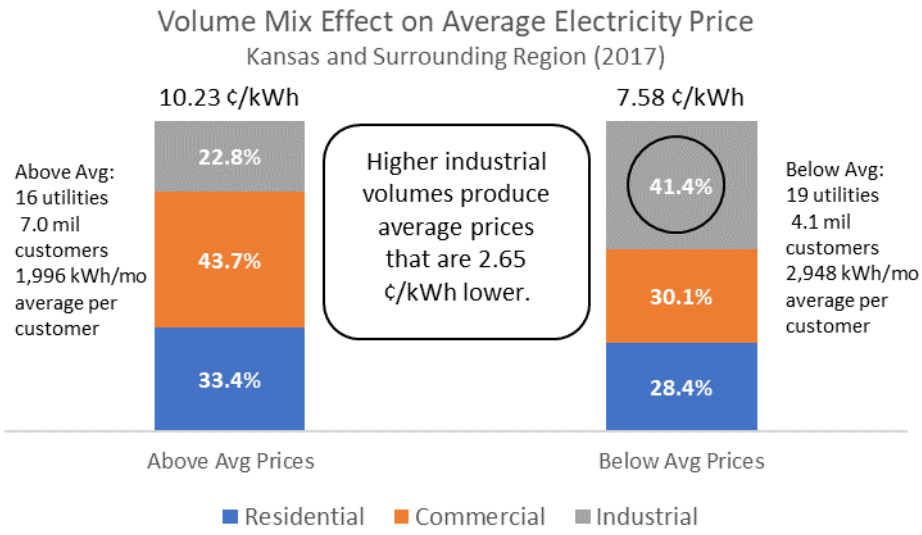
Exhibit 55 – Average Retail Price vs Total Sales Growth, Industrial Volume, and Generation from Gas

	Company	State	Total Retail Customers (2017)	2007 Total Retail Average Price (c/kWh)	2017 Total Retail Average Price (c/kWh)	2007 Total Retail Sales Volume (MWh)	2017 Total Retail Sales Volume (MWh)	2007-2017 Sales Volume Change (%)	2017 Industrial Sales Volume (%)	2017 Avg Volume per Industrial Customer (kWh/mo)	2017 Gas Net Generation (%)
1	*MidAmerican Energy Company*	*SD*	4,963	5.24	6.03	206,753	235,790	14.0%	56.1%	501,322	
2	*Southwestern Public Service Company*	*TX*	269,339	6.32	6.65	13,135,966	13,853,436	5.5%	58.2%	4,510,393	21.1%
3	*Oklahoma Gas and Electric Company*	*AR*	66,826	5.88	7.08	2,815,272	2,550,850	-9.4%	37.6%	211,130	
4	*MidAmerican Energy Company*	*IA*	680,025	5.97	7.21	18,800,640	22,365,099	19.0%	54.5%	578,426	1.1%
5	*Public Service Company of Oklahoma*	*OK*	550,022	6.87	7.51	17,910,740	18,026,293	0.6%	31.4%	76,182	48.0%
6	*ALLETE (Minnesota Power)*	*MN*	145,857	5.46	7.55	9,001,242	8,997,352	0.0%	74.4%	1,431,152	0.1%
7	*Entergy Texas, Inc.*	*TX*	446,771	8.54	7.63	15,522,096	18,058,445	16.3%	41.6%	113,747	79.0%
8	*Southwestern Electric Power Company*	*TX*	185,031	6.22	7.64	7,358,465	7,034,954	-4.4%	39.6%	54,496	18.8%
9	*Southwestern Electric Power Company*	*AR*	118,885	5.93	7.64	4,252,085	3,775,037	-11.2%	36.1%	190,328	18.8%
10	*Otter Tail Power Company*	*MN*	60,858	6.46	7.66	2,131,175	2,598,516	21.9%	38.0%	7,482,826	
11	*Otter Tail Power Company*	*SD*	11,479	6.70	7.68	395,644	428,605	8.3%	0.0%		
12	*Oklahoma Gas and Electric Company*	*OK*	771,427	6.93	7.84	22,155,927	23,730,041	7.1%	24.5%	54,799	37.4%
13	*Otter Tail Power Company*	*ND*	58,710	7.06	8.12	1,597,012	1,787,863	12.0%	2.8%	2,117,208	
14	*Entergy Arkansas, Inc.*	*AR*	708,855	7.13	8.33	21,370,955	20,888,404	-2.3%	36.0%	26,783	33.2%
15	*Empire District Electric Company*	*OK*	4,680	7.58	8.64	141,646	149,056	5.2%	28.5%	294,528	
16	*Empire District Electric Company*	*AR*	4,536	6.73	8.90	153,061	170,908	11.7%	55.2%	873,657	
17	*Union Electric Company*	*MO*	1,215,790	5.72	9.32	38,827,452	31,597,238	-18.6%	14.1%	91,367	0.0%
18	*Public Service Company of Colorado*	*CO*	1,459,117	7.51	9.41	28,085,887	28,628,813	1.9%	22.5%	1,585,343	39.2%
19	*Northern States Power Company - MN*	*ND*	93,955	6.58	9.43	2,209,458	2,207,483	-0.1%	16.6%	1,268,566	
20	*KCP&L Greater Missouri Operations Company*	*MO*	326,777	7.13	9.63	8,129,074	7,931,919	-2.4%	16.3%	433,439	-0.5%
21	*MDU Resources Group, Inc.*	*ND*	92,862	7.28	9.83	1,517,297	2,073,148	36.6%	9.7%	167,288	
22	*NorthWestern Corporation*	*SD*	63,337	7.56	9.94	1,351,987	1,557,326	15.2%	20.4%	441,160	
23	*MDU Resources Group, Inc.*	*SD*	8,576	8.83	10.09	134,535	145,591	8.2%	5.4%	81,396	
24	*Interstate Power and Light Company*	*IA*	489,605	7.36	10.14	15,085,720	14,393,847	-4.6%	46.8%	373,823	36.5%
25	*Northern States Power Company - MN*	*SD*	92,931	7.28	10.26	1,942,445	2,111,376	8.7%	17.7%	1,353,007	
26	***Westar (KGE/KPL)***	***KS***	**706,788**	**6.03**	**10.32**	**20,124,164**	**19,290,184**	**-4.1%**	**29.5%**	**102,236**	**1.3%**
27	*El Paso Electric Company*	*TX*	318,055	10.44	10.45	5,434,767	6,198,304	14.0%	15.8%	2,037,385	33.9%
28	*Empire District Electric Company*	*KS*	9,667	8.42	10.55	249,745	219,420	-12.1%	28.1%	102,685	
29	*Northern States Power Company - MN*	*MN*	1,279,507	7.76	10.84	32,490,770	29,746,784	-8.4%	27.2%	1,337,681	12.2%
30	*Empire District Electric Company*	*MO*	152,951	8.03	11.74	4,223,934	3,976,153	-5.9%	22.2%	262,432	
31	***Kansas City Power & Light Company***	***KS***	**254,913**	**6.74**	**11.84**	**6,606,722**	**6,245,053**	**-5.5%**	**4.7%**	**26,609**	**0.3%**
32	*Kansas City Power & Light Company*	*MO*	284,495	6.65	12.08	8,980,212	8,289,616	-7.7%	18.3%	131,811	0.3%
33	*Black Hills Power, Inc.*	*SD*	69,364	7.76	12.34	1,485,977	1,479,837	-0.4%	13.2%	3,263,000	
34	*Black Hills Colorado Electric Utility Company, LP*	*CO*	96,118	NA	12.94	NA	1,901,236		22.8%	623,220	
35	*Northwestern Wisconsin Electric Company*	*MN*	86	13.07	14.23	551	562	2.0%	0.0%		

Source: EIA-861 Bundled Retail Sales

Utilities with the lowest average prices all had significant industrial volumes. In fact, as Exhibit 56 illustrates, the difference in industrial sales between higher and lower price utilities is quite dramatic, with the lower-price utilities having industrial sales that are nearly 20 percent higher (41.4% vs. 22.8%) than those of higher-priced utilities. On an average price basis, this translates into lower-priced utilities coming in at 7.58 cents/kWh versus 10.23 cents/kWh for higher-priced utilities, a difference of 2.65 cents/kWh. Notably, KCP&L-KS serving a largely suburban area has an understandly low industrial volume of only 4.7%, which contributes to its higher average retail price.

Exhibit 56 – Sales Volume Mix Effect on Average Retail Electricity Price



Note: Data from study group of 35 utilities serving 11.1 million retail customers with average usage of 2,347 kWh/month, a weighted-average price of 9.00 ¢/kWh, and an average volume mix of 31.1% residential, 37.4% commercial, and 31.4% industrial.

B. Customer Mix and Load Profile Rate Impacts

Complexities in making rate comparisons across jurisdictions include not having comparable billing determinants and other jurisdictional differences; having each of the rate comparisons be limited as a basis for direct comparison; and having simplistic comparisons that are likely to lead to inaccurate conclusions. Customer characteristics such as usage levels and load factor significantly affect the overall bill impact of different rates. For example, KCP&L-MO industrial customers on average use five times the MWh that KCP&L-KS industrial customers do. With a declining block rate structure, the average rate for these KCP&L-MO customers will include many kWh at the much lower block rates, resulting in lower average rates for KCP&L-MO industrial customers. Industrial customers for Westar and KCP&L have considerably lower rates than the average customer because the fixed cost to serve industrial customers can be recovered from greater sales volumes. The largest industrial customers see the lowest rates due to this economy of scale.

Two overarching factors that create differences in rate levels between jurisdictions are differences in the regulatory environment (state statutes, rules and regulations, regulatory environment and Commission decisions) and differences in customer characteristics. When it comes to customer characteristics, billing determinants (which are used to design rates that recover approved costs), customer class load factors, and demographics of customer mix differ among utilities. Many of the peer utilities in this study that have some of the lowest average rates also have the highest mix of industrial customers. MidAmerican South Dakota and Iowa have over 50% industrial customers, and ALLETE Minnesota Power has almost 75% industrial mix. This is compared to Westar with 29% and KCP&L-KS with 5%.

Exhibit 57 – Retail Price Index (Customer Class Average / Total Retail Average)

	Retail Price Index (Class/Total Retail Avg Price)	State	Total Retail Customers (2017)	2007 Residential Price Index	2007 Commercial Price Index	2007 Industrial Price Index	2017 Residential Price Index	2017 Commercial Price Index	2017 Industrial Price Index
1	*ALLETE (Minnesota Power)*	*MN*	145,857	1.41	1.26	0.88	1.43	1.30	0.88
2	*Black Hills Colorado Electric Utility Company, LP*	*CO*	96,118				1.24	0.99	0.69
3	*Black Hills Power, Inc.*	*SD*	69,364	1.16	1.03	0.65	1.12	1.01	0.63
4	*El Paso Electric Company*	*TX*	318,055	1.16	1.03	0.67	1.24	0.96	0.58
5	*Empire District Electric Company*	*AR*	4,536	1.25	1.11	0.82	1.40	1.09	0.80
6	*Empire District Electric Company*	*KS*	9,667	1.07	1.09	0.81	1.06	1.12	0.79
7	*Empire District Electric Company*	*MO*	152,951	1.13	1.00	0.76	1.19	0.97	0.71
8	*Empire District Electric Company*	*OK*	4,680	1.05	1.14	0.84	1.14	1.01	0.83
9	*Entergy Arkansas, Inc.*	*AR*	708,855	1.25	0.96	0.77	1.25	1.01	0.75
10	*Entergy Texas, Inc.*	*TX*	446,771	1.18	1.03	0.82	1.36	1.04	0.70
11	*Interstate Power and Light Company*	*IA*	489,605	1.47	1.09	0.71	1.51	1.10	0.67
12	***Kansas City Power & Light Company***	***KS***	**254,913**	**1.11**	**0.93**	**0.82**	**1.13**	**0.91**	**0.84**
13	*Kansas City Power & Light Company*	*MO*	284,495	1.22	0.98	0.72	1.21	0.98	0.72
14	*KCP&L Greater Missouri Operations Company*	*MO*	326,777	1.19	0.92	0.68	1.17	0.94	0.70
15	*MDU Resources Group, Inc.*	*ND*	92,862	1.08	0.99	0.78	1.10	0.98	0.72
16	*MDU Resources Group, Inc.*	*SD*	8,576	1.09	0.94	0.77	1.07	0.96	0.77
17	*MidAmerican Energy Company*	*IA*	680,025	1.43	1.08	0.67	1.46	1.10	0.75
18	*MidAmerican Energy Company*	*SD*	4,963	1.39	1.29	0.79	1.33	1.19	0.79
19	*Northern States Power Company - MN*	*ND*	93,955	1.11	0.99	0.79	1.12	0.99	0.78
20	*Northern States Power Company - MN*	*SD*	92,931	1.24	0.92	0.78	1.19	0.95	0.76
21	*Northern States Power Company - MN*	*MN*	1,279,507	1.27	0.97	0.78	1.27	1.00	0.72
22	*NorthWestern Corporation*	*SD*	63,337	1.10	1.01	0.71	1.11	1.05	0.71
23	*Northwestern Wisconsin Electric Company*	*MN*	86	0.98	1.04		1.01	0.99	
24	*Oklahoma Gas and Electric Company*	*AR*	66,826	1.23	1.04	0.83	1.25	1.05	0.78
25	*Oklahoma Gas and Electric Company*	*OK*	771,427	1.19	0.99	0.75	1.29	0.95	0.67
26	*Otter Tail Power Company*	*MN*	60,858	1.15	1.03	0.79	1.33	1.10	0.71
27	*Otter Tail Power Company*	*ND*	58,710	1.06	0.98	0.85	1.09	0.96	0.84
28	*Otter Tail Power Company*	*SD*	11,479	1.16	0.96	0.71	1.22	0.92	
29	*Public Service Company of Colorado*	*CO*	1,459,117	1.20	0.99	0.73	1.21	1.01	0.69
30	*Public Service Company of Oklahoma*	*OK*	550,022	1.18	1.02	0.79	1.35	0.99	0.64
31	*Southwestern Electric Power Company*	*AR*	118,885	1.25	1.01	0.84	1.24	1.00	0.81
32	*Southwestern Electric Power Company*	*TX*	185,031	1.22	1.01	0.83	1.27	1.02	0.78
33	*Southwestern Public Service Company*	*TX*	269,339	1.32	1.17	0.79	1.67	1.21	0.72
34	*Union Electric Company*	*MO*	1,215,790	1.20	0.99	0.72	1.20	0.91	0.73
35	***Westar (KGE/KPL)***	***KS***	**706,788**	**1.22**	**1.00**	**0.75**	**1.29**	**0.97**	**0.72**

Source: EIA-861 Bundled Retail Sales

10. Future Plans for Rate Stability

The benefits of size and scale that will come from the merger of Westar and GPE are not reflected in the numbers presented in this study for Westar and KCP&L. As a combined company operating under Evergy, KCP&L, KCP&L Greater Missouri Operations ("GMO") and Westar now comprise one of the larger companies among the peer group. Evergy has a plan to ultimately achieve rates that will once again be below the national average.

The companies operate in an environment challenged by increasing costs and flat to declining customer usage, which puts significant upward pressure on rates. A number of characteristics of the KCP&L and Westar combination – including good strategic and cultural fit, joint plant ownership, contiguity of service territories, and complementary operational strengths – present opportunities for savings, service enhancements and economic development over the long term. With the merger and 2018 rate reviews completed, KCP&L and Westar have already begun passing merger savings on to customers in Kansas.

With the merger, KCP&L and Westar have a reduced need for capital investment and have reduced their capital forecast by over a billion dollars in the first five years. The Companies have also agreed to a five-year rate moratorium in Kansas. This means that Kansas customers will have base rate stability through 2023.

In the first five years after the 2018 merger, more than $200 million in savings are guaranteed for Kansas customers. This includes nearly $31 million in up-front bill credits, nearly $46 million in annual bill credits, and about $30 million annually in merger-related rate reductions.

With the benefits of the merger, the companies expect to ramp up to $160 million per year in merger savings, which will ultimately benefit customers in future rate reviews.

Both Westar and KCP&L recently completed rate reviews in the second half of 2018. These have resulted in rate reductions of $66 million and $10.7 million, respectively. In addition, tax bill credits associated with the Federal Tax Cuts and Jobs Act for Westar and KCP&L customers are being provided in the amount of $50.1 million and approximately $36.9 million, respectively.

11. Conclusion

Kansas rates are at the national average. Following the completion of the previous build cycle in the 1980s and leading up to 2007, KCP&L and Westar had relatively low and stable rates for many years. Both Westar and KCP&L have been in another major build cycle over the past 10 years, which required significant capital investments, much of which were driven by the need for baseload generation and compliance with federal and state mandates. These large investments, mostly to comply with federal and state mandates, are now complete and are already reflected in rates, while many neighboring states have yet to make similar investments. While that build cycle has come to an end, this significant increase in net plant, accompanied by major shifts in reduced customer demand and changes in electricity production and energy markets in general have contributed to relatively higher rate increases in Kansas after a long period of rate stability and rate decreases. Even so, over the past 30 years, electricity costs have risen less than the rate of inflation and remain a modest slice of household expenditures (approximately 2.4%). The management of controllable costs, like O&M expenses that have been actively managed and controlled by both companies over the last ten years, have provided a significantly positive impact. Furthermore, merger savings will continue to be unlocked because of the benefits of size and scale of combining the two companies.

In addition to the rate reduction from the most recent rate reviews for Westar and KCP&L-KS, the five-year rate freeze on base rates that others in the study group have not committed to will close the gap in rates between some of the peer companies and Westar and KCP&L-KS. Merger savings will also significantly reduce the need for increases at the end of the five-year Kansas base rate moratorium period. In addition, both Westar and KCP&L currently project capital investment over the next five years substantially less than many of their peers. As a result of the merger and investments previously made by Westar and KCP&L on behalf of their customers, the two companies are well positioned to bring rate stability and more competitive rates for Kansas customers for the foreseeable future.

12. Appendix

Appendix A – KCP&L Rate Change History

History of KCP&L-Kansas Rate Changes

Energy Efficiency Rider	Requested Increase (Decrease)	Commission Approved Increase (Decrease)
To recover the cost of Commission -Approved EE Programs		
08-KCPE-802-TAR	$ 4,096,185	$ 4,096,185
09-KCPE-770-TAR	$ 2,513,546	$ 2,513,546
10-KCPE-636-TAR	$ 2,602,933	$ 2,481,791
11-KCPE-665-TAR	$ (522,768)	$ (522,768)
12-KCPE-729-TAR	$ (2,377,285)	$ (2,377,285)
13-KCPE-584-TAR	$ (3,196,567)	$ (4,183,872)
14-KCPE-442-TAR	$ (1,180,187)	$ (1,180,187)
15-KCPE-448-TAR	$ -	$ -
16-KCPE-439-TAR	$ -	$ -
17-KCPE-446-TAR	$ -	$ -
18-KCPE-420-TAR	$ -	$ -

Ad Valorem Tax Rider	Requested Increase (Decrease)	Commission Approved Increase (Decrease)
To recover the cost of Ad Valorem Taxes pursuant to 66-117(f)		
12-KCPE-452-TAR	$ 3,686,584	$ 3,686,584
13-KCPE-415-TAR	$ 1,309,192	$ 1,309,192
14-KCPE-288-TAR	$ (1,420,113)	$ (1,420,097)
15-KCPE-260-TAR	$ 2,250,931	$ 2,250,931
16-KCPE-296-TAR	$ 455,248	$ 455,248
17-KCPE-259-TAR	$ (3,252,099)	$ (3,252,099)
18-KCPE-258-TAR	$ 3,266,283	$ 3,266,283

Transmission Delivery Charge	Requested Increase (Decrease)	Commission Approved Increase (Decrease)
To recover the cost of increased investments in transmission assets to improve reliability pursuant to K.S.A. 66-1237		
15-KCPE-116-RTS	14,924,412	14,924,412
17-KCPE-116-TAR	$ 918,382	$ 662,080
17-KPCE-440-TAR	$ 7,242,932	$ 6,954,579
18-KCPE-403-TAR	$ 9,262,289	$ 7,853,648

General Rate Cases	Requested Increase (Decrease)	Commission Approved Increase (Decrease)
07-KCPE-905-RTS	$ 47,060,873	$ 28,000,000
09-KCPE-246-RTS	$ 71,630,000	$ 59,000,000
10-KCPE-415-RTS	$ 55,225,000	$ 21,846,202
12-KCPE-764-RTS	$ 63,550,528	$ 33,156,017
14-KCPE-272-RTS	$ 12,113,071	$ 11,535,857
15-KCPE-116-RTS	$ 56,278,815	$ 40,125,928
17-KCPE-201-RTS	$ (2,829,191)	$ (3,557,588)
18-KCPE-480-RTS	$ 26,165,358	$ (3,916,417)

Appendix B – Westar Rate Change History

History of Westar Rate Changes

Energy Efficiency Rider	Requested Increase (Decrease)	Commission Approved Increase (Decrease)
To recover the cost of Commission-Approved EE Programs		
11-WSEE-032-TAR	$ 5,832,635	$ 5,830,491
12-WSEE-063-TAR	$ 4,938,954	$ 4,900,718
13-WSEE-033-TAR	$ 1,138,247	$ 1,138,247
14-WSEE-030-TAR	$ (1,347,309)	$ (1,347,309)
15-WSEE-021-TAR	$ (4,979,035)	$ (5,006,999)
16-WSEE-021-TAR	$ 672,052	$ (814,186)
17-WSEE-014-TAR	$ (756,229)	$ (756,229)
18-WSEE-024-TAR	$ 591,704	$ 591,704
19-WSEE-013-TAR	$ 462,251	$ 451,415

Ad Valorem Tax Rider	Requested Increase (Decrease)	Approved Increase (Decrease)
To recover the cost of Ad Valorem Taxes pursuant to 66-117(f)		
07-WSEE-838-TAR	$ (4,145,811)	$ (4,149,363)
08-WSEE-510-TAR	$ (3,817,594)	$ (3,845,984)
09-WSEE-461-TAR	$ (4,314,250)	$ (7,309,297)
10-WSEE-362-TAR	$ (4,783,674)	$ (4,407,775)
11-WSEE-415-TAR	$ 190,302	$ 746,312
12-WSEE-407-TAR	$ 6,643,522	$ 6,622,206
13-WSEE-382-TAR	$ 21,893,561	$ 21,812,232
14-WSEE-267-TAR	$ 12,679,470	$ 12,679,470
15-WSEE-227-TAR	$ 6,916,376	$ 4,936,010
16-WSEE-268-TAR	$ 5,009,738	$ 5,026,824
17-WSEE-228-TAR	$ (27,015,302)	$ (26,817,308)
18-WSEE-234-TAR	$ (226,009)	$ (248,409)
19-WSEE-217-TAR	$ 6,067,980	$ 6,264,802

Transmission Delivery Charge	Requested Increase (Decrease)	Approved Increase (Decrease)
To recover the cost of FERC regulated investments in transmission assets		
08-WSEE-511-TAR	$ (7,316,035)	$ (7,316,035)
09-WSEE-008-TAR	$ 6,132,929	$ 6,132,929
09-WSEE-598-TAR	$ 31,764,530	$ 31,764,530
10-WSEE-507-TAR	$ 6,417,044	$ 6,401,496
11-WSEE-599-TAR	$ 17,352,206	$ 17,352,206
12-WSEE-651-TAR	$ 36,724,491	$ 36,724,491
13-WSEE-507-TAR	$ 9,132,896	$ 11,751,527
14-WSEE-393-TAR	$ 43,581,221	$ 43,581,221
15-WSEE-366-TAR	$ 7,224,212	$ 7,224,212
16-WSEE-375-TAR	$ 25,349,548	$ 25,349,548
16-WSEE-375-TAR**	$ (18,263,254)	$ (18,263,254)
17-WSEE-377-TAR	$ 12,673,550	$ 12,739,494
18-WSEE-355-TAR	$ 31,456,832	$ 31,456,832
18-WSEE-355-TAR**	$ (20,178,144)	$ (20,178,144)

** Indicates Supplemental Filings to pass along cost decreases

General Rate Cases	Requested Increase (Decrease)	Approved Increase (Decrease)	
08-WSEE-1041-RTS	$ 151,323,377	$ 130,000,000	*
09-WSEE-925-RTS	$ 19,700,000	$ 17,116,219	
12-WSEE-112-RTS	$ 90,832,779	$ 50,000,000	*
13-WSEE-629-RTS	$ 31,700,000	$ 30,687,487	
15-WSEE-115-RTS	$ 143,799,844	$ 78,000,000	*
17-WSEE-147-RTS	$ 17,445,707	$ 16,366,511	
18-WSEE-328-RTS	$ 68,200,652	$ (50,311,893)	

*This excludes revenue associated with Ad Valorem Taxes and ECRR because those revenues are included above.

Appendix C – KCP&L-KS Energy Cost Adjustment History

Kansas City Power & Light Energy Cost Adjustment (ECA)
in cents/kWh

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Jan	0.682	1.328	1.245	0.99	1.561	2.022	1.945	2.071	1.906	1.673
Feb	0.73	1.203	1.246	1.018	1.57	2.453	2.41	2.07	1.869	1.651
Mar	0.917	1.067	1.334	1.226	1.537	2.469	2.435	2.638	1.845	1.631
Apr	0.786	1.114	0.824	1.837	1.749	2.11	2.384	2.86	1.814	2.087
May	0.541	1.098	0.831	1.353	1.876	1.939	1.962	2.475	1.831	2.112
Jun	0.974	1.423	1.114	1.445	2.037	1.974	1.781	2.258	1.845	2.19
Jul	1.916	1.343	1.434	1.853	2.14	1.991	2.126	2.266	2.144	2.454
Aug	1.809	1.308	1.412	1.506	2.102	1.982	1.884	2.235	2.097	2.251
Sep	0.992	0.999	1.014	1.362	2.037	1.9	1.928	2.192	2.136	2.32
Oct	0.898	1.146	0.554	2.356	2.168	1.71	1.897	1.954	2.32	2.176
Nov	1.106	1.13	0.62	2.366	2.177	1.73	1.894	1.982	2.093	2.244
Dec	1.33	1.149	0.672	2.423	2.237	1.818	1.879	2.07	1.769	2.225

Appendix D – Westar Retail Energy Cost Adjustment History

Westar Retail Energy Cost Adjustment (RECA) History
in cents/kWh

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2007												
North	1.4198	1.522	1.6154	1.3646	1.8859	1.859	2.2163	1.596	1.4653	1.3154	1.4018	1.3121
South	0.7237	0.8074	0.7324	0.8031	1.0382	1.4287	2.1532	1.711	0.9264	0.7805	0.7851	0.863
2008												
North	1.3206	1.2075	1.6146	2.5018	2.3888	2.9452	3.1322	4.1941	2.2577	2.2176	2.1483	1.9161
South	0.8274	0.7846	1.7593	2.3133	1.2014	1.6858	2.7181	2.9727	1.0537	0.6442	0.8513	0.7097
2009												
North	2.1396	2.3434	2.2694	2.6965	2.6965	2.6965	2.2299	2.2299	2.2299	2.069	2.069	2.069
South	0.7379	0.8665	1.1574	1.5619	1.5619	1.5619	1.4774	1.4774	1.4774	1.3807	1.3807	1.3807

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
2010	1.6159	1.867	2.0347	1.7202
2011	1.7923	2.1404	2.1671	1.9168
2012	1.9281	2.3244	2.0809	2.1187
2013	2.3293	2.1786	2.121	2.1055
2014	2.196	2.4476	2.5158	2.5527
2015	2.2222	2.1201	1.794	1.7161
2016	1.9107	2.1717	1.7649	1.8164
2017	2.0114	2.2246	2.2076	2.0945

Appendix E – All Sector Average Retail Price of Electricity 2007 and 2017

	All Sector Average Retail Price (cents/kWh)	State	Total Retail Customers (2017)	2007 Total Retail Average Price (c/kWh)	2017 Total Retail Average Price (c/kWh)	2007 Ranking (Low to High)	2017 Ranking (Low to High)	2007-2017 Average Price CAGR (%)	2007 Total Retail Sales Volume (MWh)	2017 Total Retail Sales Volume (MWh)	2007-2017 Sales Volume Change (%)
1	*ALLETE (Minnesota Power)*	*MN*	145,857	5.46	7.55	2	6	3.3%	9,001,242	8,997,352	0.0%
2	*Black Hills Colorado Electric Utility Company, LP*	*CO*	96,118	NA	12.94		34		NA	1,901,235	
3	*Black Hills Power, Inc.*	*SD*	69,364	7.76	12.34	27	33	4.8%	1,485,977	1,479,840	-0.4%
4	*El Paso Electric Company*	*TX*	318,055	10.44	10.45	33	27	0.0%	5,434,767	6,198,304	14.0%
5	*Empire District Electric Company*	*AR*	4,536	6.73	8.90	14	16	2.8%	153,061	170,907	11.7%
6	*Empire District Electric Company*	*KS*	9,667	8.42	10.55	30	28	2.3%	249,745	219,420	-12.1%
7	*Empire District Electric Company*	*MO*	152,951	8.03	11.74	29	30	3.9%	4,223,934	3,976,153	-5.9%
8	*Empire District Electric Company*	*OK*	4,680	7.58	8.64	26	15	1.3%	141,646	149,055	5.2%
9	*Entergy Arkansas, Inc.*	*AR*	708,855	7.13	8.33	20	14	1.6%	21,370,955	20,888,407	-2.3%
10	*Entergy Texas, Inc.*	*TX*	446,771	8.54	7.63	31	7	-1.1%	15,522,096	18,058,445	16.3%
11	*Interstate Power and Light Company*	*IA*	489,605	7.36	10.14	23	24	3.3%	15,085,720	14,393,847	-4.6%
12	***Kansas City Power & Light Company***	***KS***	**254,913**	**6.74**	**11.84**	**15**	**31**	**5.8%**	**6,606,722**	**6,245,054**	**-5.5%**
13	*Kansas City Power & Light Company*	*MO*	284,495	6.65	12.08	12	32	6.2%	8,980,212	8,289,428	-7.7%
14	*KCP&L Greater Missouri Operations Company*	*MO*	326,777	7.13	9.63	19	20	3.0%	8,129,074	7,931,919	-2.4%
15	*MDU Resources Group, Inc.*	*ND*	92,862	7.28	9.83	22	21	3.0%	1,517,297	2,073,146	36.6%
16	*MDU Resources Group, Inc.*	*SD*	8,576	8.83	10.09	32	23	1.3%	134,535	145,591	8.2%
17	*MidAmerican Energy Company*	*IA*	680,025	5.97	7.21	6	4	1.9%	18,800,640	22,365,098	19.0%
18	*MidAmerican Energy Company*	*SD*	4,963	5.24	6.03	1	1	1.4%	206,753	235,790	14.0%
19	*Northern States Power Company - MN*	*ND*	93,955	6.58	9.43	11	19	3.7%	2,209,458	2,207,483	-0.1%
20	*Northern States Power Company - MN*	*SD*	92,931	7.28	10.26	21	25	3.5%	1,942,445	2,111,402	8.7%
21	*Northern States Power Company - MN*	*MN*	1,279,507	7.76	10.84	28	29	3.4%	32,490,770	29,746,782	-8.4%
22	*NorthWestern Corporation*	*SD*	63,337	7.56	9.94	25	22	2.8%	1,351,987	1,557,326	15.2%
23	*Northwestern Wisconsin Electric Company*	*MN*	86	13.07	14.23	34	35	0.9%	551	562	2.0%
24	*Oklahoma Gas and Electric Company*	*AR*	66,826	5.88	7.08	4	3	1.9%	2,815,272	2,547,850	-9.5%
25	*Oklahoma Gas and Electric Company*	*OK*	771,427	6.93	7.84	17	12	1.2%	22,155,927	23,730,041	7.1%
26	*Otter Tail Power Company*	*MN*	60,858	6.46	7.66	10	10	1.7%	2,131,175	2,598,516	21.9%
27	*Otter Tail Power Company*	*ND*	58,710	7.06	8.12	18	13	1.4%	1,597,012	1,787,862	12.0%
28	*Otter Tail Power Company*	*SD*	11,479	6.70	7.68	13	11	1.4%	395,644	428,606	8.3%
29	*Public Service Company of Colorado*	*CO*	1,459,117	7.51	9.41	24	18	2.3%	28,085,887	28,628,812	1.9%
30	*Public Service Company of Oklahoma*	*OK*	550,022	6.87	7.51	16	5	0.9%	17,910,740	18,026,293	0.6%
31	*Southwestern Electric Power Company*		118,885	5.93	7.64	5	9	2.6%	4,252,085	3,775,037	-11.2%
32	*Southwestern Electric Power Company*	*TX*	185,031	6.22	7.64	8	8	2.1%	7,358,465	7,034,954	-4.4%
33	*Southwestern Public Service Company*	*TX*	269,339	6.32	6.65	9	2	0.5%	13,135,966	13,853,432	5.5%
34	*Union Electric Company*	*MO*	1,215,790	5.72	9.32	3	17	5.0%	38,827,452	31,597,238	-18.6%
35	***Westar (KGE/KPL)***	***KS***	**706,788**	**6.03**	**10.32**	**7**	**26**	**5.5%**	**20,124,164**	**19,293,184**	**-4.1%**

Appendix F – Residential Average Retail Price of Electricity 2007 and 2017

	Residential Average Price (cents/kWh)	State	Residential Retail Customers (2017)	2007	2017	2007 Ranking (Low to High)	2017 Ranking (Low to High)	2007-2017 CAGR (%)	2007-2017 Sales Volume Change (%)	2017 Avg Volume per Residential Customer (kWh/mo)	2017 Avg Customer Bill ($/mo)	2017 Avg Bill Ranking (Low to High)
1	*ALLETE (Minnesota Power)*	*MN*	122,295	7.70	10.80	11	16	3.4%	-3.9%	689	$ 74.38	3
2	*Black Hills Colorado Electric Utility Company, LP*	*CO*	84,101	NA	16.05		35			601	$ 96.43	16
3	*Black Hills Power, Inc.*	*SD*	56,312	8.97	13.86	24	30	4.4%	2.1%	749	$ 103.84	21
4	*El Paso Electric Company*	*TX*	282,153	12.16	12.96	33	26	0.6%	30.5%	632	$ 81.94	4
5	*Empire District Electric Company*	*AR*	3,743	8.42	12.44	20	25	4.0%	-2.0%	879	$ 109.36	26
6	*Empire District Electric Company*	*KS*	8,196	8.99	11.20	25	21	2.2%	-14.4%	1,030	$ 115.39	31
7	*Empire District Electric Company*	*MO*	129,017	9.10	13.96	28	31	4.4%	-9.2%	1,006	$ 140.44	35
8	*Empire District Electric Company*	*OK*	3,762	7.95	9.83	14	7	2.2%	-16.9%	1,046	$ 102.83	20
9	*Entergy Arkansas, Inc.*	*AR*	591,111	8.93	10.43	23	12	1.6%	-5.5%	1,029	$ 107.32	24
10	*Entergy Texas, Inc.*	*TX*	390,771	10.09	10.35	31	11	0.3%	8.3%	1,219	$ 126.16	33
11	*Interstate Power and Light Company*	*IA*	403,160	10.83	15.27	32	34	3.5%	-9.4%	725	$ 110.71	27
12	***Kansas City Power & Light Company***	***KS***	**224,985**	**7.45**	**13.39**	**9**	**28**	**6.0%**	**-7.8%**	**1,001**	**$ 134.01**	**34**
13	*Kansas City Power & Light Company*	*MO*	251,503	8.08	14.64	15	33	6.1%	-6.9%	822	$ 120.31	32
14	*KCP&L Greater Missouri Operations Company*	*MO*	286,870	8.49	11.24	21	22	2.8%	-6.2%	994	$ 111.75	29
15	*MDU Resources Group, Inc.*	*ND*	78,564	7.83	10.76	13	15	3.2%	32.0%	805	$ 86.63	9
16	*MDU Resources Group, Inc.*	*SD*	6,532	9.59	10.82	29	17	1.2%	6.1%	865	$ 93.65	14
17	*MidAmerican Energy Company*	*IA*	583,485	8.51	10.55	22	13	2.2%	1.6%	792	$ 83.54	6
18	*MidAmerican Energy Company*	*SD*	4,044	7.30	8.03	3	1	1.0%	37.4%	1,142	$ 91.70	11
19	*Northern States Power Company - MN*	*ND*	80,799	7.31	10.58	4	14	3.8%	-0.3%	777	$ 82.17	5
20	*Northern States Power Company - MN*	*SD*	80,991	9.04	12.21	27	24	3.1%	14.0%	755	$ 92.15	12
21	*Northern States Power Company - MN*	*MN*	1,140,536	9.84	13.79	30	29	3.4%	-7.8%	615	$ 84.75	7
22	*NorthWestern Corporation*	*SD*	50,248	8.33	11.04	19	18	2.9%	8.1%	905	$ 99.92	17
23	*Northwestern Wisconsin Electric Company*	*MN*	63	12.81	14.32	34	32	1.1%	2.7%	499	$ 71.43	2
24	*Oklahoma Gas and Electric Company*	*AR*	55,622	7.26	8.86	2	3	2.0%	-6.4%	1,016	$ 90.05	10
25	*Oklahoma Gas and Electric Company*	*OK*	660,803	8.23	10.12	17	8	2.1%	2.5%	1,027	$ 103.92	22
26	*Otter Tail Power Company*	*MN*	48,477	7.43	10.15	7	10	3.2%	-3.0%	914	$ 92.78	13
27	*Otter Tail Power Company*	*ND*	45,688	7.45	8.84	8	2	1.7%	7.3%	1,089	$ 96.30	15
28	*Otter Tail Power Company*	*SD*	8,736	7.74	9.35	12	4	1.9%	0.7%	1,089	$ 101.75	19
29	*Public Service Company of Colorado*	*CO*	1,244,432	9.00	11.35	26	23	2.3%	2.3%	610	$ 69.20	1
30	*Public Service Company of Oklahoma*	*OK*	472,622	8.10	10.12	16	9	2.3%	-0.3%	1,048	$ 106.04	23
31	*Southwestern Electric Power Company*	*AR*	100,296	7.39	9.48	6	5	2.5%	-3.1%	899	$ 85.23	8
32	*Southwestern Electric Power Company*	*TX*	149,890	7.61	9.70	10	6	2.5%	-4.7%	1,123	$ 108.99	25
33	*Southwestern Public Service Company*	*TX*	210,819	8.32	11.11	18	19	2.9%	-7.2%	914	$ 101.51	18
34	*Union Electric Company*	*MO*	1,053,590	6.88	11.19	1	20	5.0%	-11.3%	1,000	$ 111.89	30
35	***Westar (KGE/KPL)***	***KS***	**616,198**	**7.36**	**13.32**	**5**	**27**	**6.1%**	**-7.7%**	**832**	**$ 110.89**	**28**

Appendix G – Commercial Average Retail Price of Electricity 2007 and 2017

	Commercial Average Price (cents/kWh)	State	Commercial Retail Customers (2017)	2007	2017	2007 Ranking (Low to High)	2017 Ranking (Low to High)	2007-2017 CAGR (%)	2007-2017 Sales Volume Change (%)	2017 Avg Volume per Commercial Customer (kWh/mo)
1	*ALLETE (Minnesota Power)*	*MN*	23,172	6.90	9.84	17	23	3.6%	-2.9%	689
2	*Black Hills Colorado Electric Utility Company, LP*	*CO*	11,960	NA	12.76		34			601
3	*Black Hills Power, Inc.*	*SD*	13,048	8.02	12.48	27	33	4.5%	11.0%	749
4	*El Paso Electric Company*	*TX*	35,862	10.81	10.08	33	25	-0.7%	14.0%	632
5	*Empire District Electric Company*	*AR*	784	7.47	9.70	23	21	2.6%	3.9%	879
6	*Empire District Electric Company*	*KS*	1,422	9.20	11.84	32	32	2.6%	-6.8%	1,030
7	*Empire District Electric Company*	*MO*	23,655	8.01	11.42	26	30	3.6%	-3.6%	1,006
8	*Empire District Electric Company*	*OK*	906	8.60	8.73	30	15	0.1%	63.1%	1,046
9	*Entergy Arkansas, Inc.*	*AR*	94,320	6.87	8.41	15	12	2.0%	-2.6%	1,029
10	*Entergy Texas, Inc.*	*TX*	50,489	8.80	7.92	31	9	-1.0%	11.3%	1,219
11	*Interstate Power and Light Company*	*IA*	84,944	8.05	11.18	28	29	3.3%	10.8%	725
12	***Kansas City Power & Light Company***	***KS***	**29,000**	**6.26**	**10.73**	**5**	**27**	**5.5%**	-0.6%	**1,001**
13	*Kansas City Power & Light Company*	*MO*	32,031	6.52	11.81	9	31	6.1%	-6.0%	822
14	*KCP&L Greater Missouri Operations Company*	*MO*	39,659	6.57	9.09	11	16	3.3%	2.9%	994
15	*MDU Resources Group, Inc.*	*ND*	14,198	7.19	9.69	20	20	3.0%	40.8%	805
16	*MDU Resources Group, Inc.*	*SD*	2,036	8.33	9.64	29	19	1.5%	12.0%	865
17	*MidAmerican Energy Company*	*IA*	94,785	6.44	7.94	7	10	2.1%	-8.5%	792
18	*MidAmerican Energy Company*	*SD*	897	6.78	7.17	14	2	0.6%	29.8%	1,142
19	*Northern States Power Company - MN*	*ND*	13,133	6.55	9.35	10	17	3.6%	-0.5%	777
20	*Northern States Power Company - MN*	*SD*	11,916	6.68	9.75	13	22	3.8%	7.9%	755
21	*Northern States Power Company - MN*	*MN*	138,466	7.55	10.80	24	28	3.6%	-5.2%	615
22	*NorthWestern Corporation*	*SD*	13,030	7.67	10.41	25	26	3.1%	9.0%	905
23	*Northwestern Wisconsin Electric Company*	*MN*	23	13.59	14.05	34	35	0.3%	0.5%	499
24	*Oklahoma Gas and Electric Company*	*AR*	10,824	6.13	7.42	4	3	1.9%	2.9%	1,016
25	*Oklahoma Gas and Electric Company*	*OK*	101,773	6.89	7.46	16	4	0.8%	16.5%	1,027
26	*Otter Tail Power Company*	*MN*	12,370	6.63	8.46	12	14	2.5%	0.8%	914
27	*Otter Tail Power Company*	*ND*	13,020	6.92	7.80	18	7	1.2%	19.0%	1,089
28	*Otter Tail Power Company*	*SD*	2,743	6.45	7.08	8	1	0.9%	23.3%	1,089
29	*Public Service Company of Colorado*	*CO*	214,345	7.46	9.47	22	18	2.4%	-0.6%	610
30	*Public Service Company of Oklahoma*	*OK*	71,199	7.00	7.47	19	5	0.7%	1.9%	1,048
31	*Southwestern Electric Power Company*	*AR*	17,993	5.96	7.72	2	6	2.6%	-5.4%	899
32	*Southwestern Electric Power Company*	*TX*	30,885	6.29	7.82	6	8	2.2%	-2.2%	1,123
33	*Southwestern Public Service Company*	*TX*	58,372	7.37	8.02	21	11	0.8%	-8.6%	914
34	*Union Electric Company*	*MO*	158,126	5.68	8.46	1	13	4.1%	-1.9%	1,000
35	***Westar (KGE/KPL)***	***KS***	**85,953**	**6.01**	**10.04**	**3**	**24**	**5.3%**	-2.4%	**832**

Appendix H – Industrial Average Retail Price of Electricity 2007 and 2017

	Industrial Average Price (cents/kWh)	State	Industrial Retail Customers (2017)	2007	2017	2007 Ranking (Low to High)	2017 Ranking (Low to High)	2007-2017 CAGR (%)	2007-2017 Sales Volume Change (%)	2017 Avg Volume per Industrial Customer (kWh/mo)
1	*ALLETE (Minnesota Power)*	*MN*	390	4.81	6.61	7	14	3.2%	1.1%	1,431,152
2	*Black Hills Colorado Electric Utility Company, LP*	*CO*	58	NA	8.92		32			645,478
3	*Black Hills Power, Inc.*	*SD*	5	5.02	7.84	12	26	4.6%	32.2%	3,263,017
4	*El Paso Electric Company*	*TX*	40	6.97	6.11	32	11	-1.3%	10.4%	2,037,385
5	*Empire District Electric Company*	*AR*	9	5.51	7.11	22	21	2.6%	22.4%	873,648
6	*Empire District Electric Company*	*KS*	50	6.80	8.28	31	29	2.0%	12.9%	102,683
7	*Empire District Electric Company*	*MO*	280	6.08	8.38	28	30	3.3%	-3.5%	262,432
8	*Empire District Electric Company*	*OK*	12	6.37	7.20	29	22	1.2%	12.4%	294,528
9	*Entergy Arkansas, Inc.*	*AR*	23,424	5.48	6.22	21	12	1.3%	1.4%	26,784
10	*Entergy Texas, Inc.*	*TX*	5,510	6.97	5.37	33	5	-2.6%	27.2%	113,747
11	*Interstate Power and Light Company*	*IA*	1,501	5.21	6.83	17	16	2.7%	-9.8%	373,823
12	***Kansas City Power & Light Company***	***KS***	**928**	**5.52**	**9.89**	**23**	**33**	**6.0%**	**27.7%**	**26,609**
13	*Kansas City Power & Light Company*	*MO*	960	4.81	8.67	6	31	6.1%	13.3%	131,811
14	*KCP&L Greater Missouri Operations Company*	*MO*	248	4.82	6.74	8	15	3.4%	-4.7%	433,439
15	*MDU Resources Group, Inc.*	*ND*	100	5.66	7.10	24	20	2.3%	32.5%	172,461
16	*MDU Resources Group, Inc.*	*SD*	8	6.79	7.84	30	28	1.5%	-4.0%	81,406
17	*MidAmerican Energy Company*	*IA*	1,755	4.01	5.42	1	6	3.1%	47.3%	578,426
18	*MidAmerican Energy Company*	*SD*	22	4.15	4.78	3	1	1.4%	2.3%	501,322
19	*Northern States Power Company - MN*	*ND*	24	5.17	7.34	14	23	3.6%	1.4%	1,268,566
20	*Northern States Power Company - MN*	*SD*	23	5.71	7.80	25	25	3.2%	1.5%	1,353,007
21	*Northern States Power Company - MN*	*MN*	504	6.05	7.84	27	27	2.6%	14.0%	1,337,681
22	*NorthWestern Corporation*	*SD*	60	5.40	7.01	18	19	2.6%	50.8%	441,160
23	*Northwestern Wisconsin Electric Company*	*MN*	-	NA	NA					
24	*Oklahoma Gas and Electric Company*	*AR*	379	4.87	5.51	9	8	1.2%	20.5%	210,470
25	*Oklahoma Gas and Electric Company*	*OK*	8,851	5.21	5.28	16	4	0.1%	-0.2%	54,799
26	*Otter Tail Power Company*	*MN*	11	5.07	5.44	13	7	0.7%	92.6%	7,482,826
27	*Otter Tail Power Company*	*ND*	2	5.97	6.83	26	17	1.4%	38.5%	2,117,208
28	*Otter Tail Power Company*	*SD*	-	4.74	NA		5		-100.0%	
29	*Public Service Company of Colorado*	*CO*	339	5.46	6.53	20	13	1.8%	6.4%	1,585,342
30	*Public Service Company of Oklahoma*	*OK*	6,201	5.45	4.82	19	3	-1.2%	0.3%	76,182
31	*Southwestern Electric Power Company*	*AR*	596	4.95	6.10	10	10	2.1%	21.1%	191,650
32	*Southwestern Electric Power Company*	*TX*	4,256	5.17	5.99	15	9	1.5%	-5.9%	52,941
33	*Southwestern Public Service Company*	*TX*	149	5.00	4.78	11	2	-0.4%	17.9%	4,510,393
34	*Union Electric Company*	*MO*	4,072	4.11	6.84	2	18	5.2%	54.5%	91,344
35	***Westar (KGE/KPL)***	***KS***	**4,637**	**4.55**	**7.45**	**4**	**24**	**5.0%**	**-2.2%**	**102,590**