

Jay Scott Emler
Chairman, Kansas Corporation Commission
1500 SW Arrowhead Road
Topeka, KS 66604-4027

RE: Docket 16-KCPE-593-ACQ

Dear Chairman Elmer,

My name is Sandy McCrea and I'm employed by Graybar Electric as a Lighting Business Development Manager. I considerate it a privilege to provide comment on the pending acquisition of Westar Energy by Great Plains Energy, and the specific reason for being here is to share with you my thoughts on investing in Energy Efficiency and why this acquisition would be a benefit to the Kansas community served by Westar and KCP&L.

First off I want to state that I accept a premise, that this acquisition would not affect the excellent existing service provided by both entities represented, and in fact, it would improve operations. Those improvements would be more efficient processes through production economies of scale, where savings can be passed on to customers. With that being said, I will focus on my involvement with the current Missouri and proposed Kansas Energy Efficiency Investment Act (MEEIA/KEEIA) and convey the benefit of such programs. These programs provide financial incentives for customers to implement Energy Efficiency upgrades. Graybar is uniquely positioned to comment on this subject because we are an active MEEIA KCP&L Trade Ally, and within Graybar, Westar Energy happens to be the largest single customer within our district.

A recent visit to the Database of State Incentives for Renewables and Efficiency (DISRE) listed only 2 states that did not have a dedicated Lighting Efficiency Rebate program. Those two states were Alaska and Kansas. It is a fact that many KCP&L Kansas customers are frustrated and perplexed as to why they cannot participate in a program similar to the Missouri Energy Efficiency Investment Act, a program that provides financial incentives for energy efficiency upgrades. It is my hope that this acquisition comes to fruition, and when it does, that it affords Kansas consumers, businesses and communities the same benefits that Missourians enjoy through their MEEIA program.

With Graybar, my particular responsibility is to promote lighting sales, and as an end result, lighting efficiency. The importance of the Missouri Energy Efficiency Investment Act is enormous, and I would expect a similar program in Kansas to likewise benefit consumers, business and the generator. As a Lighting Certified specialist, I have been in the lighting profession for over 25 years, and am exposed to many different utility lighting rebate programs. I would rate the current MEEIA program as an excellent utility incentive program example.

What impact does lighting efficiency have? Relative to electric generation, lighting consumption impacts three major areas, ENERGY, ECONOMICS AND ENVIORNMENT. I will briefly touch on these 3 sectors.

ENERGY

The U.S. Energy Information Administration (EIA) estimates that in 2015, about 404 billion kilowatt hours (kWh) of electricity were used for lighting by the residential sector and the commercial sector in the United States. This was about 10% of total U.S. electricity consumption and within commercial

buildings, lighting accounts for 18% of electricity consumed, which is the second largest energy consumer after heating, ventilation, and air conditioning (HVAC) systems

New LED (light emitting diodes) lighting technologies are many times more efficient than traditional technologies such as HID, Fluorescent and Incandescent, and lighting efficient upgrades using LEDs can result in substantial net energy use reduction. A 2008 study for the U.S. Department of Energy (DOE) revealed that using LEDs for niche purposes where currently feasible would save enough electricity to equal the output of 27 coal power plants

Energy.gov states that widespread use of LED lighting has the greatest potential impact on energy savings in the United States. By 2027, widespread use of LEDs could save about 348 TWh (Terawatt hour) of electricity: A Terawatt is equal to 1,000,000 megawatts and the 348 TWh is the equivalent annual electrical output of 44 large electric power plants (1000 megawatts each), and a total savings of more than \$30 billion at today's electricity prices.

Customer ECONOMICS

Looking into the details of LED lighting upgrades, a typical project would be to replace a HID 400w high bay fixture with an equivalent light output LED fixture. The wattage savings would be about 280 watts, or 60% of the existing HID wattage. When you operate 100) 400w HID fixtures that have been upgraded to LED, at a modest 3120 hours a year (12 hours per day for 5 days a week), it provides an electric savings to the customer of 60% or a little over \$800 per month, and saves 28 kilowatts of power. The simple payback on this installed project would be around 5 years. Not a bad investment but in the corporate world not something to rave about. Now in contrast, if current MEEIA incentives are applied to this identical model, it provides a simple payback of under 2 years. This is now an investment worth doing immediately.

As stated, LED technology delivers enormous savings but also provides longer life, which lowers maintenance costs. It increases the quality of light, improves working/safety conditions and elevates employee comfort and productivity levels. Lastly, in conditioned spaces, HVAC operation is improved due to lower heat levels.

Community ECONOMICS

The American Council for an Energy-Efficient Economy reports that money saved on lower utility bills creates economic growth, jobs, and opportunity. Various studies indicate that each \$1 spent on energy efficiency results in \$5 to \$7 of local economic growth. This comes in the form of new jobs via engineering, construction, installation, and maintenance.... jobs that cannot be exported. Energy savings driven by sound incentive and rebate programs gives consumers and businesses more choices and disposable income, which are very good things.

ENVIRONMENT

Regarding climate change, one can glean various comments from many different opinionated sources, here are some from McKinsey & Company, the Sierra Club and others.....

“The cheapest megawatt hour is the one never generated.”

“CO2 emissions in the U.S. have fallen in large part because cleaner fuels are being used to generate power. Natural gas produces roughly half of the emissions as coal power, while several renewable technologies – notably, solar and wind – produce little or no emissions in generation.”

Excerpted from a Jeffrey C Peters article in The Conversation...."In 2015, the Obama administration finalized the EPA Clean Power Plan (CPP), which aims to reduce carbon dioxide emissions from the electricity sector in 2030 by 32 percent compared with 2005 levels. Although tied up in the courts, the CPP has not yet come into force. But even though its future is at risk, one thing is clear: Market forces are already largely achieving the CO2 emissions cuts targeted with the regulation. The U.S. Energy Information Administration estimates that 2015 CO2 emissions in the electricity sector were 21 percent lower than 2005 levels – about two-thirds toward the Clean Power Plan goal. This is without any national CPP implementation outside of expectations of future enforcement and with little effect on real electricity retail prices."

Those comments appear to be good news even though much ado has been made about global warming, (now referred to as climate change for various reasons). Let's revisit a simple science school fact..... humans exhale carbon dioxide (CO2) and plants need to absorb it to live. According to a Nature World News article by Jenna Lacurci, "climate models have grossly underestimated plant life ability to absorb more CO2. As CO2 builds up in the atmosphere, plants thrive and become larger and that contributes to the photosynthesis cycle of turning sunlight into energy, with the plant waste product being oxygen". Humans just happen to need oxygen to survive. But regardless of how you feel about man-made climate change, it is evident that being good stewards of our resources is a virtuous thing.

In closing, there is no doubt we are blessed with abundant resources, especially inexpensive coal and natural gas. So why not extend those resources by implementing reasonable energy efficiency technologies, while at the same time, lowering all potentially harmful emissions.

A recognized way to do that, which is a win/win for the ENVIRONMENT, ENERGY, and the ECONOMY, is a sustainable Energy Efficiency Incentive program.

Respectfully,

Sandy Michael McCrea, LC
Graybar Electric
Kansas City, MO