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Proponent Testimony SB 437

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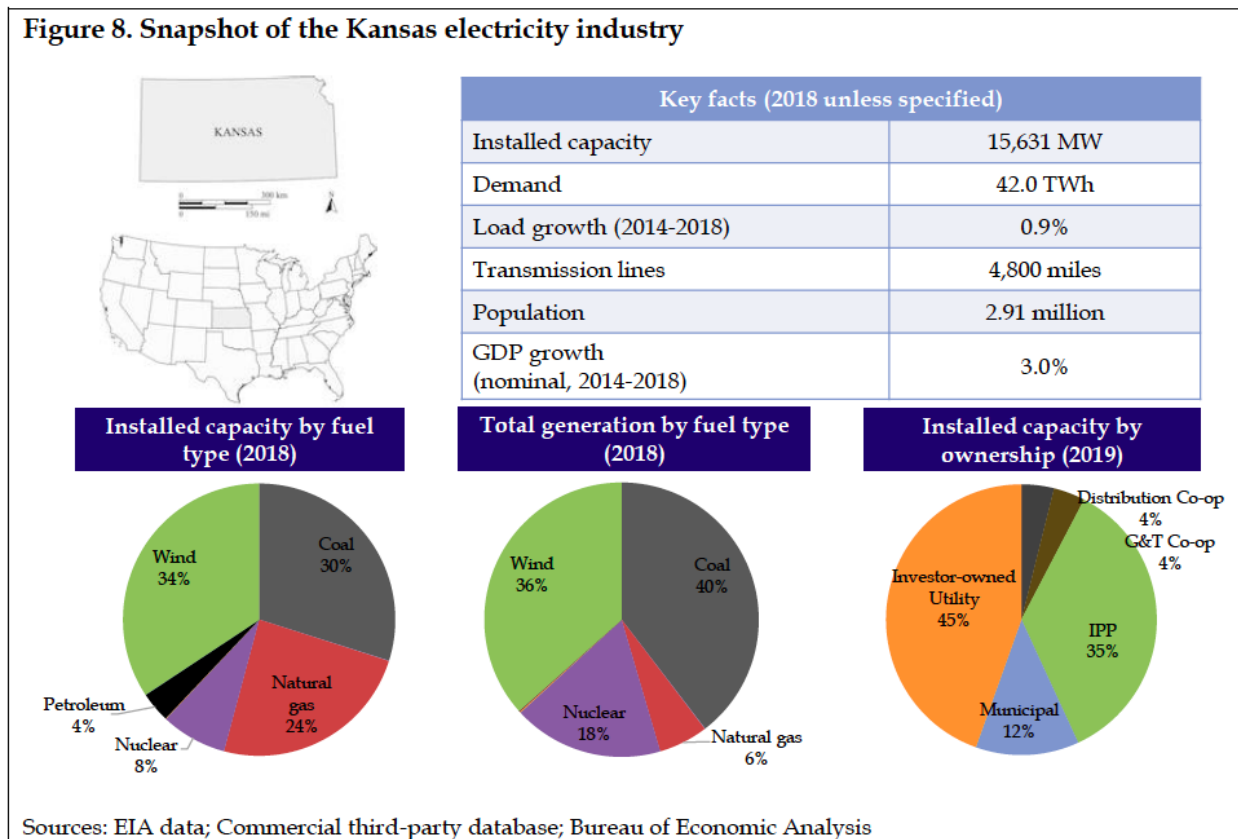
Climate + Energy Project on behalf of the Clean Energy Business Council

Good afternoon Chairman Masterson, and committee members. Thank you for allowing me to present testimony in support of SB 437. The Climate + Energy Project has been a strong advocate for renewable energy and energy efficiency in Kansas since 2007. In 2016 we created the Clean Energy Business Council which represents more than 20 clean energy businesses and organizations across the state.

The world is engaged in a profound transition in the way we use energy. The era of carbon-intensive energy derived from the burning of fossil fuels is coming to an end, and a cleaner, more reliable energy future based on renewables like wind and solar will be the new normal. In Kansas, our electric generation includes over 15.6 GW of installed capacity as of the end of 2018, with coal, gas, and wind as the dominant generation fuels and technologies. As of 2018, coal-fired generation capacity comprised 30% and gas-fired generation was 24%. Wind energy made up 34%, more than ten percent higher than the global average for renewable energy.

How long this energy transition will take is still a matter of fierce debate. A new report from the World Economic Forum's Global Future Council on Energy, *The Speed of the Energy Transition*¹ offers compelling evidence that stakeholders in the global energy system must prepare for change urgently, because it is coming fast.

Figure 8. Snapshot of the Kansas electricity industry



¹ <https://www.weforum.org/whitepapers/the-speed-of-the-energy-transition>

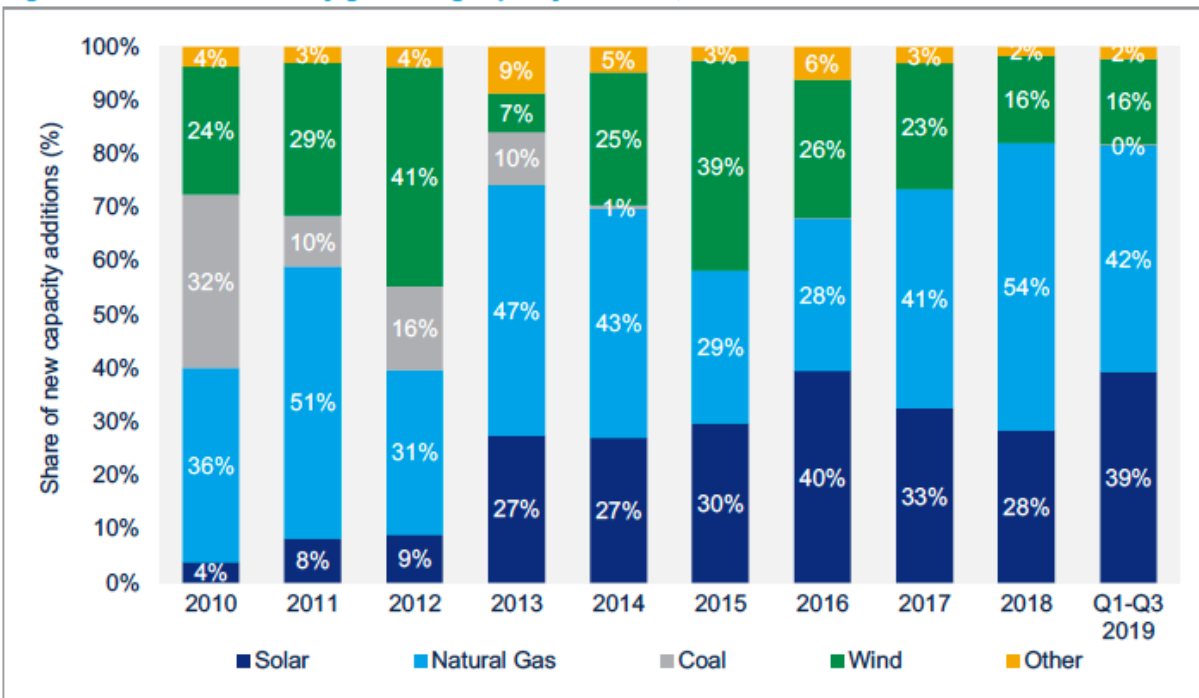
The report, examines a key question: will the energy transition be gradual or rapid? A gradual transition means that oil, gas, and coal remain the dominant energy sources even as renewable energy supply increases at a steady but linear rate.

A rapid transition, means that renewables like wind and solar quickly start to supplant fossil fuels as their supply increases at an exponential rate, following the familiar S-curve growth pattern of new technologies like personal computers and mobile phones. It means that renewables supply all the net growth in global electricity demand, displacing oil, gas, and coal —with demand for fossil fuels peaking this decade.

The Kansas wind industry is not only a major economic development driver for the state but a key factor in our declining carbon emissions, avoiding more than 9 million metric tons of carbon annually. Our power sector emissions have reduced 40% over the past 20 years, primarily due to investments in wind energy. Emissions from our transportation and industry sectors have remained relatively stable.

Despite a top ten solar resource with more sunny days than Florida, Kansas has just under 30 MW of installed solar power. Wood McKenzie’s 4th quarter solar market report projects utility PV capacity will more than double in the next five years. Kansas is poised to grow our utility PV market as more cities and businesses push utilities for additional renewable energy options.

Figure 2.1 New U.S. electricity-generating capacity additions, 2010-Q3 2019



Source: Wood Mackenzie Power & Renewables, FERC (for category "All other technologies")

The question of the timing of the energy transition is a critical one: either the tipping point is right before our eyes as we’ve experienced here in Kansas, or it is far into the future, beyond the planning horizon of most companies. If stakeholders, whether they are governments setting policy, or utilities making investment decisions, assume a gradual transition while the trajectory is actually a rapid one, they will end up making the wrong decisions. Kansans will bear the costs of uneconomic investments and even more stranded high-carbon assets.

According to the evidence outlined in *The Speed of the Energy Transition*, we’re clearly experiencing a rapid energy transition scenario. The question will be whether Kansas utilities will continue their investments in the lowest cost resource, or try to retire coal assets in favor of more expensive gas plants.

According to a July, 2019 Forbes article² *Cheap Clean Energy Makes New Natural Gas A Risky Bet Utility Regulators Should Avoid*, new natural gas rarely makes economic sense, even without considering externalities like greenhouse gas emissions. Solar-plus-storage is now competitive with new natural gas-fired power plants on energy, capacity, and other grid services. Investment firm Lazard pegs the cost of new combined cycle natural gas generation at \$41-74 per megawatt-hour (MWh). The same report finds unsubsidized solar costs at \$36-46/MWh and wind costs at \$29-56 (significantly lower with federal tax credits).

As clean energy advocates, we believe this bill could have lasting beneficial effects on both utility scale and distributed renewable energy as we transition to clean energy at a more rapid pace. Kansas has first-hand experience with the economic and environmental benefits from clean energy and there is an appetite for more from businesses, cities and Kansas citizens. We are encouraged that not only can renewable energy investments be made with savings from ratepayer backed bonds, but the bill implicitly calls out investments in least-cost supply side and demand side resources.

Despite passing the Kansas Energy Efficiency Investment Act five years ago, Kansas remains 48th on the American Council for a Clean Energy Economy's energy efficiency scorecard. As electricity costs rise, we must find ways to finance energy efficiency programs for low and moderate income Kansans. SB 437 would at least add one tool that could be used to that end.

We support securitization, with appropriate open and transparent processes managed by the Kansas Corporation Commission.

Some additional resources regarding securitization can be found here.

<https://energynews.us/2018/10/02/west/how-refinancing-could-help-retire-colorado-coal-plants-sooner/>

<https://www.forbes.com/sites/energyinnovation/2018/12/12/from-coal-to-clean-how-utilities-can-manage-the-inevitable-financial-transition/#fb7e49e79e1a>

<https://energyinnovation.org/publication/managing-the-utility-financial-transition-from-coal-to-clean-2/>

² <https://www.forbes.com/sites/energyinnovation/2019/07/10/utility-regulators-should-avoid-risky-bets-on-new-natural-gas/#3bff6cd974fa>