

Before the Senate Utilities Committee
Presented by Zack Pistora, Kansas Sierra Club
Neutral Testimony on SB 349
February 15th, 2022



Chairman Thompson and Honorable Members of the Committee,

Thank you for the opportunity to provide remarks on SB 349, which would effectually limit retail electric rate increases to 1% annually, with certain exceptions for fuel adjustment costs, ad valorem taxes, rate increases based on reliability needs, credit rating impacts, and so on.

The Kansas Chapter of Sierra Club, with nearly 5000 members across the state, has been quite involved in the energy discussion for many years, as energy generation has a major environmental impact. Furthermore, as we have seen the electric rates rise due to continued rate recovery of the billions invested into technology to help clean dirty coal plants, we are sensitive to the dramatic rise in electric rates for our largest public utility, Eversource, in the last decade, especially on low-income customers.

However, while the spirit of the bill is well-intentioned, Sierra Club does not have an established position on fair rate increases and we need additional time for analysis and modeling to assess the bill's ramifications for the clean and just energy transition we need. Furthermore, while Sierra Club is sentimental to keeping rates low and if done right, Kansas can have a future with low rates if utilities and KCC go in the right direction of clean energy solutions cutting coal dependence, there is no clear policy pathway toward that particular goal, nor does it account for the appropriate investments to reduce electric bills for vulnerable Kansans in the near-term. For those reasons, the **Kansas Sierra Club stands neutral on SB 349 today.**

Sierra Club has not had a chance to include this 1% annual rate cap in full capacity utility planning models, so we cannot yet support this bill with confidence that it won't hinder short term investments such as energy efficiency that would relieve the already much-too-high energy burden that has been placed on Kansans in low-income households. However, if Eversource is held accountable in its upcoming IRP update to current best practice planning methods for affordable and reliable energy, Kansas will achieve very low rates for energy burdened customers through portfolios of cheap, resilient clean energy sources.

We want to present you with more considerations to help guide you in your evaluation of this proposal.

Clean Energy has been the most cost-effective energy generation resource for many years, and will only get cheaper and more reliable in years to come. Eversource's previous iterations, Westar and KCP&L made bad investment decisions in the last decade's rate cases to upgrade coal plants that have been becoming less cost effective and less used and useful since the 1990s (the utility also invested significantly in transmission at that time, but those expenditures ended up having a good return on investment). Eversource has wasted billions of dollars of ratepayer money on coal plants over the last decade, which raised customer rates too quickly. Coal plant investments have not paid off for customers. The ability granted by the legislature in 2021 for the utility to close and securitize coal plants has the potential to reduce customer costs by over a billion dollars if it is done over the next few years. The savings from removing these harmful coal plants from ratepayers would allow Eversource's credit markets to reinvested in cheap demand response, energy efficiency, storage, and distributed or utility scale renewables, meeting this bill's cost reduction goals. Below we include the background information to show that a clean energy transition and closure of all coal plants this decade is the only way for Eversource to meet this bill's rate reduction goals.

In 2019's "Kansas Pays the Price", the Sierra Club highlighted the worsening economics of Eversource's Kansas coal plants, finding that the utility lost \$267 million from 2015 to 2018. The coal plants that Eversource has not committed to taking offline are projected to cost ratepayers \$847 million above the market price for energy. Eversource has since

been forced to assess the economics of its coal plants and face the fact that Evergy has dispatched its coal plants at times when the cost of operating the coal plant was far greater than the energy market price, thereby wasting customers' money. Evergy's coal fleet has continued to operate less and less, a sign of its declining competitiveness. The capacity factor for Evergy's Kansas coal fleet, or the ratio of how much electricity the coal plants produced as compared to the maximum possible production, fell from 70 percent in 2010 to 50 percent in 2018, further to 40 percent in 2020, and that trajectory continues.

High energy prices in Kansas were predominantly due to overinvestment into coal plants with expensive retrofits rather than phasing out and replacing those plants, and overuse of in-state coal power, rather than opting for cheaper wholesale energy on the regional power market. Knowing what's causing the problem is a good first step, but we also need to know how to fix it. The Kansas Legislature's Studies of Retail Rates of Kansas Electric Public Utilities by AECOM and LEI are very important, and their findings are consistent with ours. Another piece of the solution puzzle was brought through the utility integrated resource planning process last year. Intervenors showed how Evergy could lower rates and create a reliable grid in the Evaluation of Triennial Resource Planning Filing of Evergy Metro and Evergy Kansas Central Prepared by Energy Futures Group and The Council for the New Energy Economics in Docket No. 19-KCPE-096-CPL, November 2021.

In a parallel study with similar findings, Sierra Club's 2021 "Kansas Pays the Price Volume 2" proved that, with gas markets so volatile, expensive, and unreliable, cost reductions can only be assured through securitization and closure of coal plants, and reinvestment in much cheaper and more reliable demand response, storage, efficiency and renewables. Evergy should seek to replace all of its coal capacity with clean energy sources. Our models, as well as full reliability focused capacity modeling within the IRP docket, demonstrate that it is possible to replace all of Jeffrey and La Cygne coal with only clean energy resources, while maintaining affordable and reliable power for Evergy's customers.

Here's how it works:

Using Rocky Mountain Institute's Clean Energy Portfolio (CEP) algorithm, we optimized a portfolio of wind, solar PV, battery storage, energy efficiency, and demand response to meet both the energy and capacity requirements of the Jeffrey and La Cygne coal plants. Once the algorithm has identified a portfolio that can both meet the top 50 hours of demand in a year as well as the monthly energy requirements of the coal plant, it calculates the cost of building and operating that portfolio. The cost is recalculated for all hypothetical construction years from 2019 to 2030. Our Sources and Methodology section at the end of this report outlines these calculations in more detail. When the cost of building and operating the CEP falls below the cost of operating the coal plant, then there can be a "no regrets" decision to retire the coal plant and build the CEP in its place, regardless of how much remaining debt remains on the coal plant.

It's basic economics: when the total cost of a new plant becomes less than the marginal cost of an existing plant, then the new plant represents the least-cost pathway, regardless of any sunk costs. At that point (the "stranding year"), the existing plant becomes a stranded asset. The "stranding year" occurs when the cost of building and operating the CEP will become less than the base operating cost of the coal plant. Using this principle and the results of the CEP algorithm, we found that the stranding years for Jeffrey and La Cygne coal plants could occur as soon as 2025 and 2028, respectively. We tested the CEP algorithm with and without demand-side management (DSM) technologies, acknowledging that it takes time for the utility to grow its energy efficiency and demand response programs and that there is still a large, untapped potential for growth in these areas. However, DSM programs can help to further minimize costs for customers and play a key role in an affordable clean energy transition. Ramping up energy efficiency programs (as we discuss in section 3) will reduce the number of solar and wind projects that need to be built, while implementing demand response programs will reduce the amount of battery storage that needs to be built.

Figure 4: Current supply and demand balance for Evergy's combined utilities

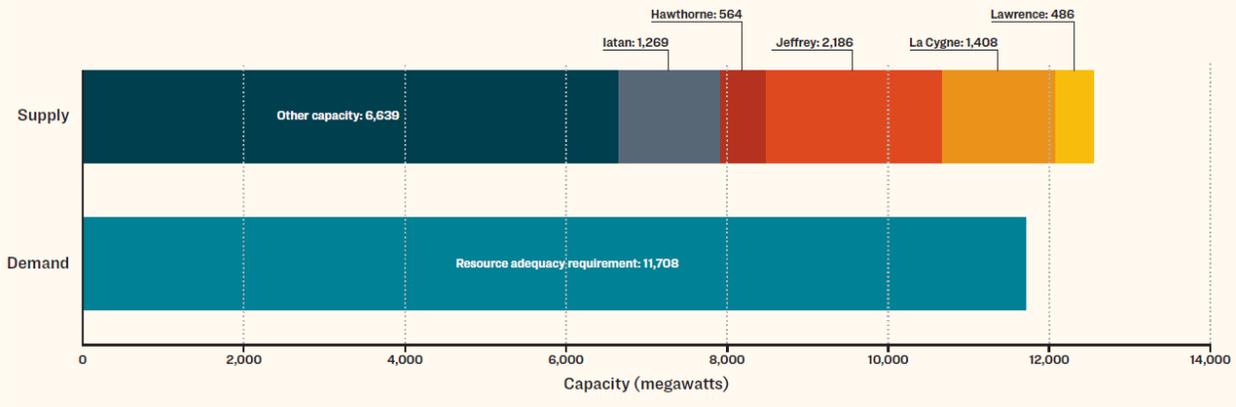


Figure 5: Comparison of Evergy's Jeffrey and La Cygne coal plants to clean energy portfolio replacements

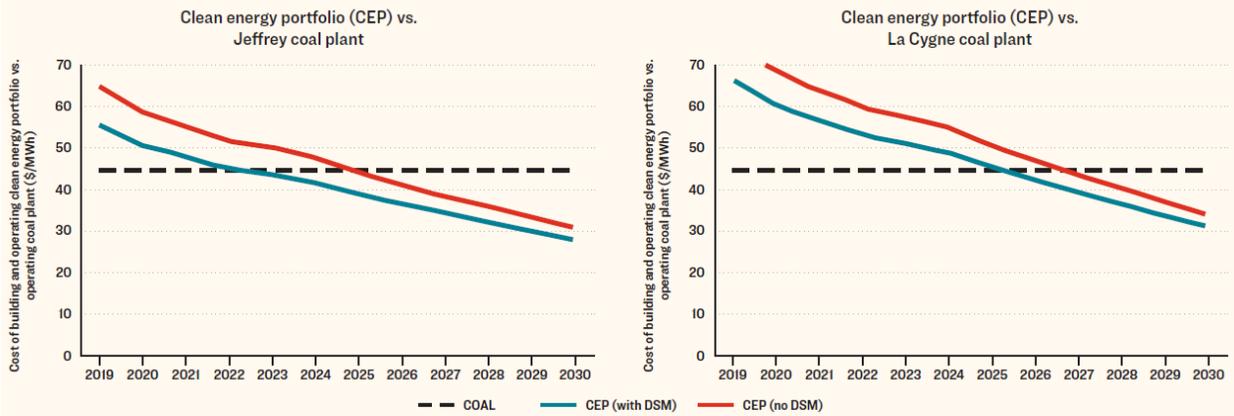


Table 1: Composition of clean energy portfolio to replace each coal plant by technology and capacity (in megawatts)

Clean energy portfolio with DSM	Solar	Wind	Battery Storage	Energy Efficiency	Demand Response
	Jeffrey	2,819	1,117	708	894
La Cygne	1,638	762	410	459	120
Total	4,457	1,879	1,119	1,353	306

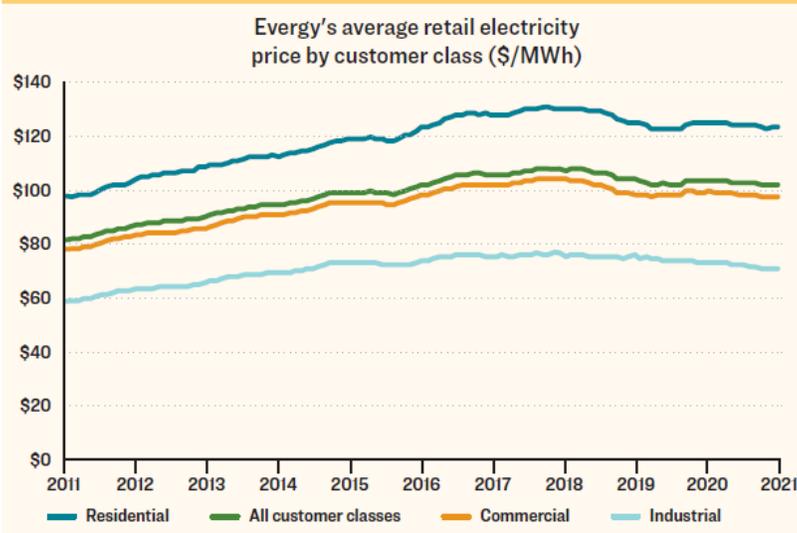
Clean energy portfolio without DSM	Solar	Wind	Battery Storage	Energy Efficiency	Demand Response
	Jeffrey	3,200	1,543	876	NA
La Cygne	1,811	952	495	NA	NA
Total	5,012	2,495	1,371		

If we start the process of securitization, reinvestment, and coal plant closures in 2022, the coal plants could be safely closed with no negative effects on the grid and hundreds of millions of dollars in savings available for customer rate reduction and low income programs alleviating cost and health burdens on Evergy's most vulnerable customers.

Given that Evergy has a large outstanding mortgage on its coal plants, the utility must acknowledge the dual reality that: 1) clean energy is the cheapest source of energy, and just as reliable as fossil resources; and 2) securitization of remaining coal plant debt can offer further savings for customers. Evergy's overreliance on coal should not be underestimated. Coal power accounted for 58 percent of Evergy's generation portfolio in 2019, compared to the nationwide average of 22 percent for the same year. Evergy has both a large amount of unpaid debt on its coal plants and an overreliance on coal for its earnings. Securitization, plant closure and capital recycling offer pathways to deal with the problems and reduce rates for Kansans.

RMI estimated that the savings from securitizing all of Evergy's remaining coal debt (across both its Missouri and Kansas service territories) would be **\$780 million** if the plants were retired in 2030, and \$1.7 billion if the plants were retired as soon as 2023. The total savings from securitizing the remaining coal debt for Jeffrey and La Cygne coal plants would range from \$333 million to \$869 million based on the 2023 to 2030 range of retirement dates.

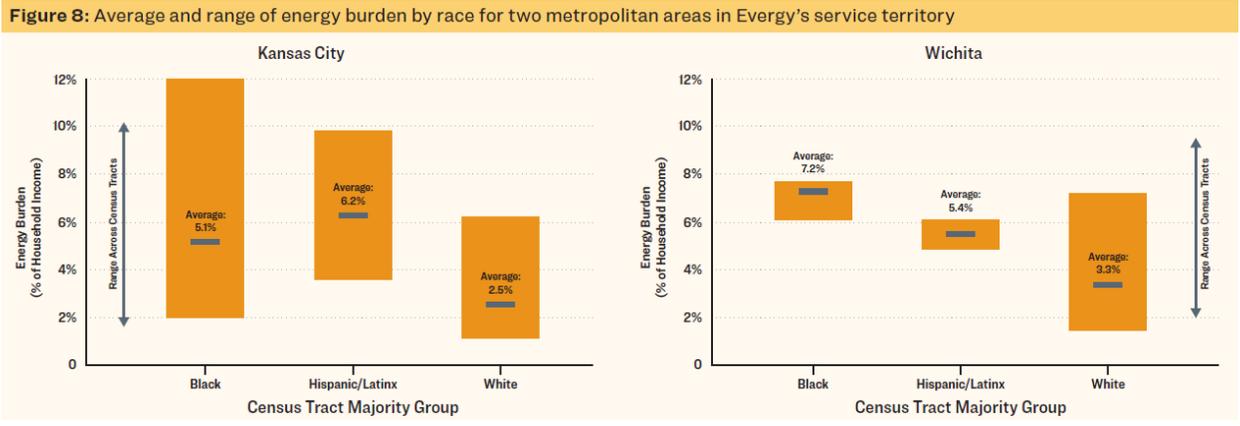
Figure 6: Evergy's average retail price of electricity by customer class



Now that Evergy has stabilized prices, the key is to keep them stable while transitioning from coal to clean energy. Securitization is one important tool for maintaining affordability. Addressing energy burden through targeted energy efficiency investment is another important tool that we turn our attention to in the next section. Further Investment in Energy Efficiency Is Needed to Help Address Energy Burden, a critical piece of an affordable, low-carbon transition, as it means that less clean energy must be built as we electrify parts of the economy. Higher levels of energy efficiency will make energy bills more affordable, and can also help create headroom for intelligent clean energy investments that can reduce customer costs even further before 2030.

“Energy burden” is a commonly used measure for affordability, defined as the proportion of household energy expenditures (electric, gas, and other heating fuel) to total household income. An energy burden greater than 6 percent of income is considered high, while an energy burden of greater than 10 percent is considered severe. A high energy burden can threaten a household's ability to pay for energy, and leads to an increased risk of disconnection, forcing some households to choose between paying energy bills and paying rent or buying food. New analysis by the Sierra Club, using Department of Energy and Census Bureau datasets, found that the energy

burden for metropolitan areas within Evergy’s service territory showed a stark divide by race, with Black and Hispanic households facing at least twice the average energy burden as that of white households in the Kansas City metropolitan area extending across both Kansas and Missouri.



For example,

majority Black and majority Hispanic census tracts in the Kansas City metropolitan area faced an average energy burden of 5.1 and 6.2 percent respectively, while majority white census tracts only faced a median energy burden of 2.5 percent. In Wichita, the largest metropolitan area wholly within the state of Kansas, the average was 7.2 percent and 5.4 percent for majority Black and Hispanic census tracts, respectively, compared to 3.3 percent for majority white census tracts.

Sierra Club knows we can reduce rates for vulnerable customers, and if this bill passes, we expect legislators to hold Evergy accountable to the economic reality that only clean energy savings and coal plant closure with no new gas can achieve additional customer savings by pursuing additional and robust energy efficiency measures in Kansas. Simply put, achieving lower load benefits customers by avoiding the need to maintain or build expensive generation resources.

Thank you for your consideration and service to Kansas.

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The Sierra Club is the largest grassroots environmental organization dedicated to enjoying, exploring, and protecting our great outdoors. The Kansas Chapter represents our state's strongest grassroots voice on environmental matters for more than forty years.