

Written testimony submitted in support of Kansas Senate Bill 124: Prohibiting the state corporation commission from authorizing certain charges for electric service.

Brent Ragsdale
17524 178th St
Tonganoxie KS 66086
bragsd1@gmail.com
913-568-1425

My name is Brent Ragsdale; I'm a lifelong Kansan and a mechanical engineer (BSME Kanas State University 1987). Since 2014 my wife Patti and I have lived in rural Leavenworth County, on a 10-acre property, in a custom home of our own design. One of our reasons for moving was to live a lower energy consumption lifestyle. The home that we built, at 2,000 ft², is two-thirds the size of the house we sold in Shawnee and consumes a fraction of the energy.

Our builder, Robson Custom Homes, specializes in well-insulated and air-tight homes constructed from structural Insulating Panels (SIPs.) Our SIPs house has 11-½" thick walls that are approximately R-65. It is a passive solar design meaning most of the windows face south and the eaves and awnings are designed to block the high-angle summer sun but not the low-angle winter sun. Our house also has a distinctive thermal-mass wall. When the sun shines we don't require much heat, even on the coldest days and nights.

We elected to go all-electric with our HVAC system even though it's typical in our area to use propane for heat. This makes Westar our only energy utility provider. Our house has a mini-split heat pump for both heating and cooling as well as a hydronic basement floor heat system. Our decision to avoid propane was based on our belief that humanity must stop burning hydrocarbons. Electrifying heat and building well-insulated and air-tight structures are two (of many) ways to begin to address the Earth's energy imbalance that is causing our planet to warm.

Our intent all along has been to add photo-voltaic solar panels to the roof of our house. In fact our builder installed a conduit between our utility room and attic for this purpose. We have been waiting

for solar panel prices to drop and for our savings to grow. Last summer we started looking into having a solar PV system installed and received a quote from SunSource Homes. At the same time we watched with dismay as the Kansas Corporation Commission considered, and then approved, changes that take away the payback on the investment for rooftop solar PV and even retroactively add financial penalties for having a solar PV system installed.

It is my understanding that the proposed SB 124 legislation, which creates the Energy Fairness Act, will prohibit investor-owned electric utilities in the state from charging a different rate for customers who generate a portion of their energy needs with renewables. I believe the current base rate covers distribution and infrastructure costs making the demand charge unnecessary. I'm strongly in favor of this legislation. Having such a law in place will allow residential consumers of electrical power to plan with known rules, which will greatly accelerate a transition to renewable forms of energy in our state.

I have another potential concern regarding our Westar bill. We also own a plug-in hybrid car. It's my commuter vehicle and has just enough battery capacity to get me to work, where I can charge it for the return trip. We haven't invested in a fast charger for home so it basically takes all night to charge my car in our home garage, but would only take 3 or 4 hours with a fast charger. Ideally, we would like to be able to let the power company determine when, between say 7 PM and 7 AM, the car is charged (assuming we have a fast charge system.) It seems to me that Kansas needs a *smart grid* capable of sending signals to smart loads. Such a system would likely have a variable rate based on real-time grid net capacity. Likewise, I wish we could have our hydronic floor heat and domestic hot water tanks (both electric) run when there is surplus (and less expensive) power being generated on the grid by wind and solar PV. I hope that policies in the future will allow this and not force customers to choose between say the benefits of a program for electric car owners or for those who have solar panels.

Kansas' adoption of wind energy has been admirable – way surpassing our renewable portfolio standards that we set 10 years ago. However, solar is lagging, especially compared to our neighboring states. Kansas is blessed with abundant wind and sunshine and we should harness both to our advantage as soon as possible. It is becoming clear that wind or solar *plus battery storage* are out competing coal and natural gas for new power plant projects in the US and elsewhere. There are even coal and nuclear plants that are being retired early based solely on the economic analysis of the current costs and benefits vs renewables. It is a shame that we made substantial investments in the recent past to cleaning up Jefferies Energy Center's emissions, which did nothing to reduce its CO2 output, but we did. The best we can do now, for ourselves and our plant, is to replace it, and all of the fossil –fueled power stations in our state, as soon as we can with renewables. Encouraging rooftop solar with our energy policy is a great start. Please pass Senate Bill 124.