

CURRENT

Fall 2023

For Our Member Systems, Employees and Friends

Kansans are unfairly shouldering transmission costs for energy exported out of state

Correcting Transmission Cost Disparity for Kansas Electric Co-op Members

by Sunflower Electric Power Corp., Midwest Energy, Inc., Kansas Electric Power Cooperative, Inc., and Kansas Electric Cooperatives, Inc. to inform electric co-op members of efforts to correct this inequity.

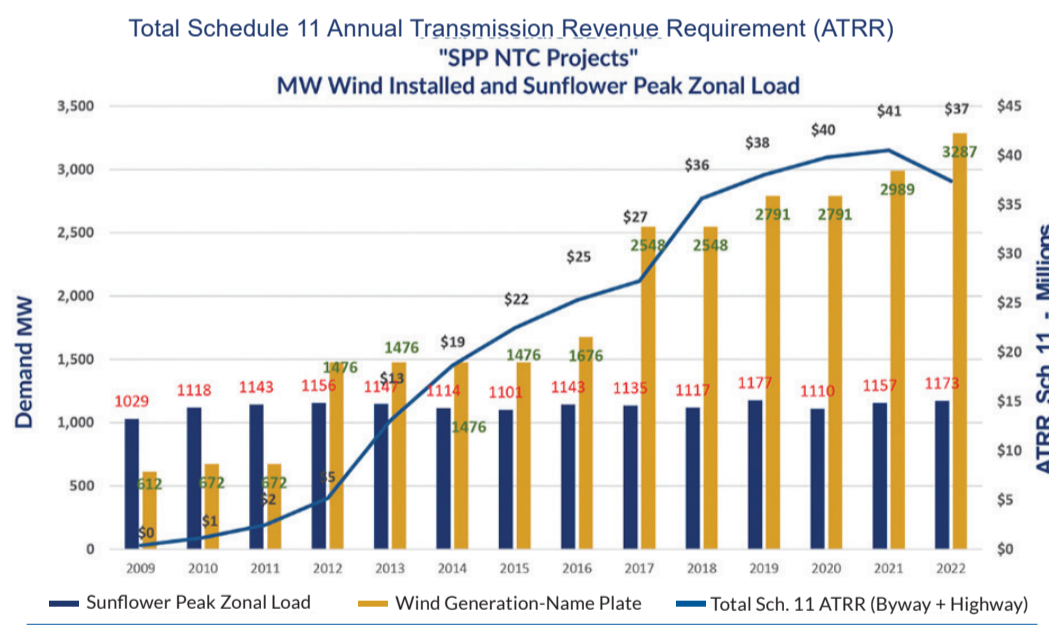
Our nation's electric grid is undergoing monumental change. From the types of resources we use (generation) to the way in which we get it (transmission), this change is happening on a grand scale and at lightning speed.

Over the last 20 years, the U.S. has experienced a fast and furious conversion from conventional generation of coal, natural gas, and diesel generators to renewable energy resources such as wind and solar. Government subsidies and the pursuit of cheaper forms of energy have fueled a dramatic growth in the wind industry. Kansas ranks in the top five of wind energy producing states, with production skyrocketing from approximately 40,000 megawatt hours (MWh) in 2001 to roughly 27,500,000 MWh produced in 2022.

While conventional generation was built relatively close to the customers it served, renewable generation is built where the fuel source is located — where the wind blows and the sun shines. This has created renewable rich areas over the past 10 years and Kansas is one of them.

Renewable Rich Areas and Transmission Costs

Renewable rich areas tend to have smaller amounts of load and less robust transmission systems, which limits the amount of renewable energy that can be harvested and exported to load centers. Because of the growth in wind generation and other renewables, there is an increased



need to build more transmission projects to minimize network congestion and enable renewable generation to be delivered to other parts of Kansas, or in some cases, out of state.

Transmission costs allocated to consumers inside renewable rich zones tend to be higher than other areas where renewables aren't as pervasive because rural areas have fewer customers over which to spread costs. The cost of these transmission facilities is disproportionately paid by those living in the areas where the generation is located, although the benefits are mostly for the region and not necessarily local consumers. Another cost consideration is that revenue distribution has not kept pace with actual power flows. Transmission revenue still goes to the utility where the power is used, not where it is generated.

Kansas Generation and Transmission Co-ops Experience Cost Disparity

The western area of the Southwest Power Pool (SPP)

illustrates the disparity between the location of needed transmission construction and the cost allocation of these new facilities. For example, Sunflower Electric Power Corporation, Hays, Kansas, is in the western part of SPP's territory and has about 3,491 MW of non-Sunflower renewable generation in its service area while its peak energy requirement is only 1,110 MW. Over the last eight years, the Sunflower zone exported over 63 million MWh of wind power to other zones and states in the SPP region, with a majority of the costs allocated to the Sunflower zone.

Similarly, in 2022, about 40% of the energy that moved on Midwest Energy's, Hays, Kansas, transmission system was delivered to its

THIS ISSUE

- Correcting Transmission Cost Disparity....1
- Correcting Cost Disparity continued.....2
- Sunflower Family Day3
- Co-op Careers4
- New Sunflower Board Members4

Correcting Transmission Cost Disparity for Kansas Electric Co-op Members *continued from pg. 1*

wholesale and retail customers while the other 60% moved off-system to renewable energy buyers elsewhere, with Midwest receiving no compensation for the use of its system.

Topeka-based Kansas Electric Power Cooperative (KEPCo) is a transmission-dependent utility, which means it does not own transmission facilities and instead utilizes the facilities of five Kansas transmission owners in the SPP to provide its members with transmission service. Over the past decade, KEPCo's transmission costs have more than doubled. This is, in large part, attributable to the cost allocation mismatch experienced by Sunflower and Midwest Energy

More transmission inside the renewable rich zones will be necessary to minimize congestion and provide for more renewable interconnections to harvest the cheap energy we have available. But allocating costs using the current cost allocation construct does not capture who truly benefits from facilities built inside the renewable rich zones. Bottom line: Kansans are unfairly shouldering the costs of exporting energy.

Transmission Expansion in Last 10 Years

Transmission expansion in western Kansas over the last decade resulted in the construction of more than 500 miles of new 115/138/345 kV transmission. In the central and eastern areas of the state, nearly 700 miles of transmission lines were built/rebuilt over the last 10 years, with approximately 20% built to accommodate SPP and other mandates and 80% built to replace aged, poor performing infrastructure. New transmission provides better system reliability to customers, significantly reduces SPP market prices, and provides cost-effective congestion relief that benefits all SPP members. However, a comparison of transmission rates among the 18 zones in SPP shows that Sunflower and Midwest Energy transmission rates are among the highest in SPP. This is due partly to the magnitude of SPP-driven transmission projects within those zones.

Wrongly allocating transmission costs to local customers inside renewable rich areas will negatively impact development of future needed transmission as states who are paying for transmission to benefit other states will resist new builds if the local customers must carry the burden for the rest of the region.

Searching for Solutions

Kansas ratepayers should not bear the costs of exporting these renewable resources out of state.

Kansas-based generation and transmission cooperatives (G&Ts) along with your local distribution electric cooperatives are currently working with state and national lawmakers, the Federal Energy Regulatory Commission (FERC), the SPP and others to move to a cost allocation methodology that corrects this inequity and follows the principle that the cost causer should be the cost payer.

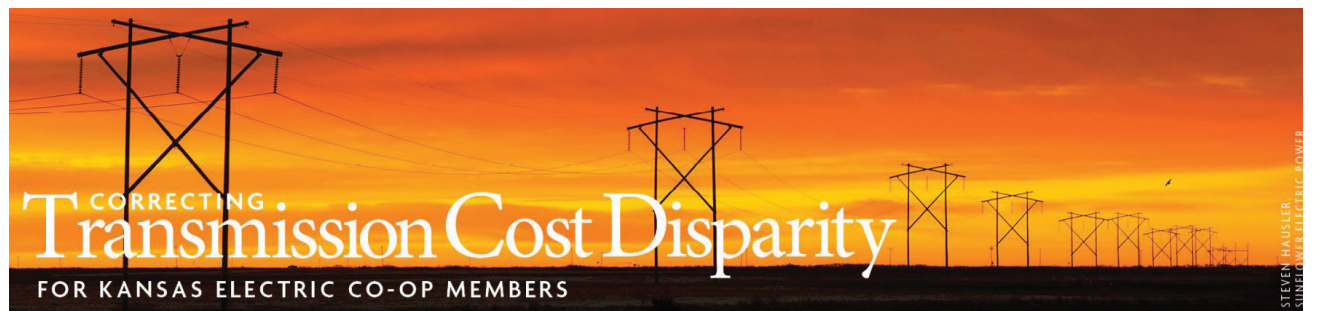
Did you know?

Kansas has become a net electric energy exporter. In 2021, generation exceeded retail sales by 140% (export margin).

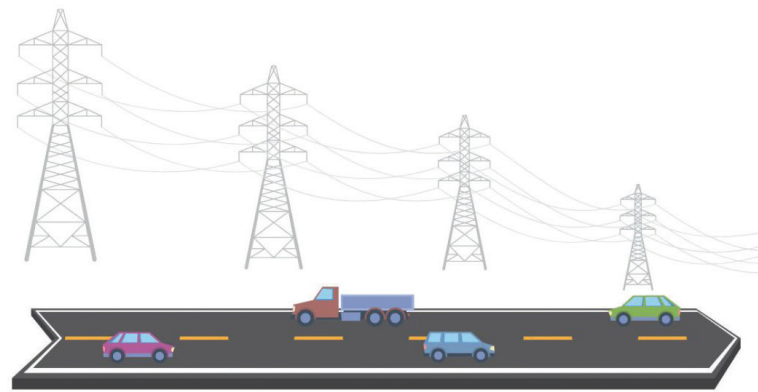
New methods must be developed to properly allocate transmission costs for resource rich zones as the current method lacks the flexibility to capture who truly benefits from facilities built inside those renewable rich zones. FERC must ensure that if the transmission upgrade is inside the renewable rich zone and the load being served or benefiting from the upgrade is outside that zone, the cost allocation of the upgrade should be allocated to a much larger region than the host zone.

Maintaining Reliability and Affordability

The transition to more renewable generation will continue to push the need for new and upgraded transmission infrastructure in Kansas. And as the power supply moves farther from the source of demand, it will be imperative to find cost allocation solutions that are equitable to customers who are currently paying the costs, without benefits, for exporting energy out of the state. Your Kansas-based G&T cooperatives and your local distribution cooperatives will continue to push for equitable cost allocation solutions to maintain reliable and affordable energy for Kansas electric cooperatives' consumer-members.



What Is Driving Transmission Needs & Costs?



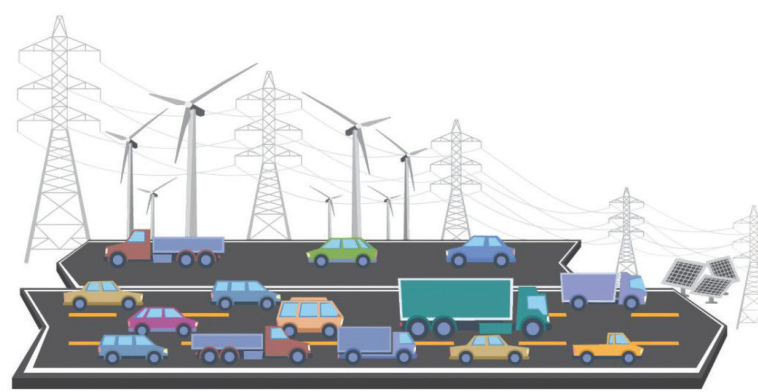
1960-2000

- ▶ “Transmission highway” initially built to serve local electricity needs (local loads).
- ▶ New generation built close to where the need for power was.
- ▶ Transmission infrastructure met the needs with spare “highway” capacity.
- ▶ “Transmission highway” paid for and maintained by local load.



2000-2010

- ▶ New generation (wind) goes online and connects to the “transmission highway” west of Salina.
- ▶ By 2010, most spare capacity fully being used.
- ▶ Western Kansas exporting energy to eastern Kansas.
- ▶ Energy exported outside of Kansas.
- ▶ “Transmission highway” still maintained by local load.



2010-2020+

- ▶ “Transmission highway” expanded to handle new generation, with rapid growth of wind generation west of Salina.
- ▶ Large energy exports from western Kansas to eastern Kansas.
- ▶ Significant energy exports outside Kansas.
- ▶ Transmission expansion funded mostly by local load.
- ▶ Independent power producers benefitting from transmission upgrades and the entire transmission system.

Our Mission:

To provide reliable, long-term power supply and transmission services to our members and the people they serve at the lowest possible cost consistent with sound business and cooperative principles.



On Sept. 22-23, Family Day was enjoyed at Sunflower's Holcomb Station by approximately 200 people beginning Friday evening and concluding Saturday afternoon.



Sunflower's Event Draws Staff and Families for a Day of Learning and Fun

Staff and family participated in 13 interactive booths to learn about many aspects of Sunflower's wholesale generation and transmission services, such as hotsticking and transmission voltages, Sunflower's vehicle fleet and heavy equipment, solar energy, purchasing, laboratory work, and CIP responsibilities. The sky view from the bucket manned by the transmission crew was a favorite of the brave-hearted, and all ages enjoyed John Vsetecka's four demonstrations about how energy works.

"My model of an electric transmission system had a power source with voltage and current meters, a manual disconnect switch, copper and aluminum conductors, porcelain insulators, and light bulbs," said Vsetecka, transmission technical services supervisor, who spent about 20 hours in 2019 building the models for his four demonstrations. "I explained how electric current flows freely through conductors but doesn't flow through insulators, and I demonstrated that air is the insulator in an air break disconnect switch. The current meter showed how adding more load (light bulbs) to a circuit increases the current flow (amps). Then I energized a small LED off a hair thin piece of wire, and when I connected a larger light bulb to the circuit, the thin wire instantly burned up. This illustrated the importance of using the correct wire size when designing a circuit."

Vicky Olvedo, safety specialist at Holcomb Station, was one of many employees who brought their family to the event.

"I loved having the opportunity to bring my family on site to show them a little about where mom works," Olvedo said. "My kids were fascinated by it all, the heavy equipment, different departments and getting a visual on how electricity is made. Their two biggest takeaways? No.1, 'It's so hot in the plant; how do people work in there?' No. 2, 'How does everyone remember where everything is? It's so big.'"

It's safe to say the many months of planning were worth it.

"The creativity each department put into their booth to make their presentation/activity relatable to all ages was very impressive," said Dawsena Miller, administrative services supervisor and member of the event's planning committee, "but seeing the excitement on the kids' faces and hearing the positive interactions between the workers and family members is really what made the extra time and effort worth every minute! Many employees were already talking about what activities to have "next time!"

Sunflower Welcomes Three New Board Members

Sunflower Electric Power Corporation seated Richard Jennison, representative for Lane-Scott Electric Cooperative, Dighton, Kan., as one of its 12 directors on August 16, 2023. In addition, Pioneer Electric Cooperative, Ulysses, Kan., and Southern Pioneer Electric Company, Liberal, Kan., selected Mike Brewer to serve as director and Jeff Moyer as an alternate to the Sunflower Board of Directors, both of whom were seated on October 18, 2023.

Each of Sunflower’s six member cooperatives—Lane-Scott Electric Cooperative, Pioneer Electric Cooperative, Victory Electric Cooperative, Western Cooperative Electric, Wheatland Electric Cooperative, and Prairie Land Electric Cooperative—has two representatives elected by local distribution cooperative members. Sunflower’s board meets monthly to strategize on the current and future operation of Sunflower and the best approaches to continue providing its members with reliable wholesale energy at the lowest possible cost.

Richard Jennison has been a member of the Lane-Scott Board of Trustees for 41 years, serving as president for 14 years and vice president for 25 years. He succeeded Paul Seib on the Sunflower Board of Directors, who recently retired after serving 44 years.

“Paul left some large shoes to fill, and I am honored to have been chosen to succeed him,” Jennison said.

A lifelong resident of rural Healy, Kan., in Lane County, he graduated from Healy High School and Kansas State University. Jennison and his wife, Diana, have three children.

Mike Brewer has served on the Pioneer and Southern Pioneer boards of trustees for nine years. Previously an alternate director for Sunflower, he succeeded Martie Floyd, who had served as director since 2019.

“It is a privilege and a blessing to represent Pioneer on the Sunflower Board of Directors,” Brewer said. “The energy industry is facing a period of dynamic changes, and I look forward to working with the board to address the many challenges affecting the power generation industry to ensure Sunflower’s members receive reliable power supply at the lowest cost possible—now and in the future.”

A native of Ulysses, Brewer is a semi-retired, self-employed farmer. After spending two years in the U.S. Army during the Vietnam War, he managed crop and livestock production operations and spent 13 years in the banking industry. In his career, he has also served on past boards of directors for Farm Bureau, Grant County Soil Conservation, Grant County Economic Development, Grant County Hospital, USD 214 School Board, among others. Brewer has two daughters and three grandchildren.

A trustee for Pioneer and Southern Pioneer since 2019, Jeff Moyer currently serves as vice president of Pioneer’s Board of Trustees.

“I am humbled and honored to be appointed as an alternate for the Sunflower board,” Moyer said. “I have learned there is always more to learn, and with the complex and rapidly changing environment of the electric industry it is paramount that we stay vigilant in serving the best interest of our

members. Sunflower is such an important part of the success of our region, the communities, and its members, and I look forward to working with a very talented and intellectual group of people to navigate the future.”

Born and raised in Ulysses and a graduate of Dodge City Community College and Kansas State University, Moyer is currently a pilot and aircraft mechanic for Moyer Aviation, Inc. In addition to being an active church member and elder, he has served as a Cub and Boy Scout leader for 13 years, where he currently serves as a committee member for the local Boy Scout Troop 186. Moyer and wife Artrisha have three children, Jazstyn, Jett, and Jyntri.



RICHARD JENNISON
Lane-Scott



MIKE BREWER
Pioneer, Southern Pioneer



JEFF MOYER
Pioneer, Southern Pioneer - alternate

SPOTLIGHT ON COOPERATIVE CAREERS
Building a Better Future: powering the lives and economy of our local communities
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“I love that we get to creatively market Sunflower to potential employees every day. We have so much to offer as a company! Sharing our culture and building professional relationships, internally and externally, to hire the right people for specific roles are incredibly satisfying,”

- Kelsi Pfannenstiel, talent acquisition specialist, right, with Michelle Bland, talent acquisition administrator

The Current is published three times per year for the member systems, friends and employees of Sunflower Electric Power Corporation.

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Our Members

