With an evolving generation resource mix in the ERCOT power region and major growth in consumer demand, it’s critical that electricity be delivered throughout the state in an efficient and cost-effective manner. One way to achieve this is by deploying additional high voltage power lines that move electricity from generation to consumers throughout the state. More transmission lines will ensure our grid maximizes the output of existing and future generation resources. With more efficient movement of power, the Texas grid will become more reliable, resilient, and will face fewer situations when consumers are unable to receive the lowest-cost power due to limited transmission line capacity. A practical example of this is found during Winter Storm Uri when more than 5,000 MW – enough to power about one million homes during that time – was stranded behind constrained transmission lines, undeliverable to consumers who desperately needed it.

Texas' current transmission infrastructure is deficient.

To keep up with increased demand, and to continue providing the lowest-cost generation to rate-payers, Texas must improve its transmission planning processes so that ERCOT is not regularly instructing power plants to reduce or halt output due to overloaded power lines.¹

Texas consumers are burdened with hidden costs associated with transmission constraints.

In 2022 alone, real-time congestion costs² exceeded $2.8 BILLION,³ which was a 33% increase over the prior year and nearly 200% more than five years ago. Increased costs such as this are alarming, particularly in a time when energy prices are skyrocketing due to geopolitical forces in Eastern Europe and out-of-market actions taken by regulatory agencies at the state and federal level. This is to say nothing of the fact that energy curtailment reduces the amount of lease payment income for landowners and tax revenue in rural communities for schools, infrastructure, and services.

ERCOT’s current transmission planning process is antiquated.

As it currently stands, ERCOT’s process for transmission planning is not keeping pace with the state’s economic and population growth and it is not consistent with planning in other power markets. To achieve more reliable delivery of power at the lowest possible cost, ERCOT needs a more holistic planning process that better captures system-wide benefits and a broader range of reliability benefits and cost savings to consumers.

¹ Generic Transmission Constraints (GTCs) are used by ERCOT to maintain appropriate voltage stability on the transmission system.
² Time period between February 14-19, 2021.
³ PUCT: “If the transmission lines necessary to deliver power from the lowest cost power plant [are] already at maximum capacity, then electricity must be purchased from a more expensive plant where transmission capacity is available to deliver the power where it is needed. This difference in the prices is the cost of transmission congestion.”

The Advanced Power Alliance is an industry trade association that promotes the development of advanced power solutions, such as wind, solar, hydrogen, and energy storage. The organization and its member companies are leading the effort to defend regulatory, tax, and siting policies that are equitable and technology neutral. Learn more at PowerAlliance.org or by contacting Judd.Messer@PowerAlliance.org.