

does not flow—all the time. The amount of wind-generated electricity averages 30% to 40% of capacity, so transmission lines moving the wind may be “underutilized” part of the time. Because management of the electric transmission system involves maintaining a balance of generation with demand (load), the on-again-off-again nature of wind-generated electricity adds to the complexity of load balancing. Some studies indicate that costs of integrating wind-generated electricity do not become significant until that source accounts for 15% to 30 % of the capacity.¹

Efficiently balancing the input and output on the transmission grid impacts cost. Although any new power source faces transmission constraint issues, wind power is especially handicapped because of the typical long distance from demand centers and the potential underutilization of expensive transmission facilities due to the variable output. Regulators like the Kansas Corporation Commission and the Southwest Power Pool consider the economic impact of decisions to expand transmission resources. That economic impact is ultimately felt in each home and business in the state.

All the Moving Parts

Harvesting and moving the electricity generated from Kansas’ abundant wind resource is not a simple process of adding a pipe

from west to east. A number of developers, utilities, planning and permitting entities, and all the state’s stakeholders are involved. Each has a unique perspective and role to play in meeting the state’s economic and energy needs.

About the Authors

The Kansas Electric Transmission Authority can be reached at keta@keta.org, or visit their website at <http://www.kansas.gov/keta> for more information.

¹ Southwest Power Pool (SPP), “Wind Integration,” http://www.spp.org/publications/SPP_Wind_Integration, © April, Access of May 11, 2008.

² Southwest Power Pool (SPP), “Wind Integration,” http://www.spp.org/publications/SPP_Wind_Integration, © April, Access of May 11, 2008.

³ Southwest Power Pool, 2008 SPP Strategic Plan, December 11, 2008, p. 10. Little Rock, Arkansas.

⁴ SPP, Wind Integration.

⁵ Id.

⁶ Id.

⁷ Winstar Energy, “Wichita to Reno County 345 kV Line Dedication,” State presentation, January 11, 2008.

⁸ Logan, Jeffrey and Sam Mark Kaplan, *Wind Power in the United States: Technology, Economic and Policy Issues*, Congressional Research Service, June 20, 2008.



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