Comparing Transmission Systems:
Nebraska and Texas

This paper looks briefly at electrical transmission systems in two states – Nebraska and Texas.

Nebraska has held down costs with a unique public system, while Texas has taken a go-slow approach in launching a pilot effort to deregulate its electricity market. Unlike California, Texas relies totally on internally generated power, and therefore its system falls outside the purview of the Federal Energy Regulatory Commission (FERC).

Nebraska

The electricity system in Nebraska is almost entirely public – the primary utility covers 91 of the 93 counties in the state.

Nebraska's rates are 22 percent below the national average.

Revenues from Nebraska's Public Power District (NPPD) come from wholesale power-supply agreements with communities, rural power districts and rural cooperatives that rely totally or partially on NPPD's electrical system.

The system uses a mix of generating facilities – nuclear, steam, hydroelectric, diesel and three units designed to meet peak demand. NPPD also purchases power from the federal Western Area Power Administration.

A control center is charged with obtaining power from the source of the "least cost" in Nebraska. Determining this source poses a smaller challenge in Nebraska than it would in California because the state of Nebraska controls all of the generation facilities.

Computer software facilitates this least-cost method, called an "economic dispatch system." The software creates an electronic cost curve designed to maintain the system at optimal cost-efficiency.

In contrast, in California, the highest bid sets the daily price for everyone.

Texas

Under the 1999 Texas Electric Choice Act, the state began its deregulation pilot program on June 1, 2001. When the pilot, which covers 5 percent of the state's consumers, is complete, the Texas Public Utility Commission (PUC) will determine whether the electric market is ready for competition.

If the results of the pilot suggest the state isn't ready, the law grants the Texas PUC the authority to delay competition until the state can successfully transition to a fully competitive market.

The Texas pilot imposes an "offer cap" that limits how much a buyer can pay for power.

Most of the wholesale power in Texas is sold under bilateral contracts – buyers and utilities contract with generators. There is no power exchange equivalent to the system created in California under electrical deregulation. Nor is the Texas power grid connected with the national grid, as California's grid is.

The Electric Reliability Council of Texas (ERCOT) determines the least-cost strategy for transmitting power from generator to purchaser, similar to the Nebraska system.

A contributing factor in California's energy crisis was the fact that the California independent system operator (Cal ISO) became the buyer of last resort, forcing the purchase of energy at exorbitant prices when supplies were scarce. Unlike Cal ISO, the ERCOT is not involved in purchasing.

The Texas PUC has released a publication titled: "Electric Choice: Texas is different from California". It can be found at http://www.powertochoose.org/residential/downloads/tx-ca_brochure.pdf

Prepared by Anna Ferrera
California Senate Office of Research
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