

ERCOT Transmission Planning Assessments

Assessing near-term transmission system needs

ERCOT continually studies the electric transmission system serving most of Texas to identify existing and potential constraints that could pose reliability concerns in the region. The [2017 Report on Existing and Potential Electric System Constraints and Needs](#) provides an assessment of the need for increased transmission and generation capacity for the next six years (2018-2023) in the ERCOT region. The annual report summarizes data included in other transmission planning studies and ERCOT's [Regional Transmission Plan \(RTP\)](#), which is submitted annually to the Public Utility Commission of Texas and the North American Electric Reliability Corporation.

Transmission Planning Highlights and Ongoing Improvements

The RTP identified 60 transmission projects, including about 190 miles of transmission upgrades and 140 miles of new circuit additions, to address reliability needs in the study timeframe. Of the total, 22 projects were identified in previous studies.

The top two congested constraints on the ERCOT system in 2017 were the North to Houston Import constraint and the Panhandle Export constraint.

Houston: Demand growth and generation retirements continue to contribute to transmission congestion in the Houston area. The 345-kV Houston Import Project, endorsed in 2014 and scheduled for completion in spring 2018, will import more power from the north to serve growing needs in the Houston area.

Panhandle: Two Panhandle transmission improvements are scheduled to be in service in early 2018 to help reduce congestion associated with moving large amounts of wind-generated power from the Panhandle to the load centers in the eastern part of the state. Future improvements likely will be needed as wind generation development continues in this area.

Freeport: Planned industrial facility additions, including the Freeport Liquefied Natural Gas facility, are expected to increase peak demand in the Freeport area from less than 800 MW in 2014 to nearly 2,300 MW by 2022. The Freeport Master Plan Project, endorsed by the ERCOT Board in December 2017, includes a new 345-kV line into the Freeport area. Short-term upgrades will occur by 2020, and the long-term improvements are expected to be in place by 2022.

West Texas: While a number of transmission additions and upgrades have taken place in West Texas over the past five years, more transmission is needed to keep up with increased load due to oil and gas activity and solar generation development in this area. Over the past two years, ERCOT has endorsed another nearly \$600 million of major transmission projects to serve this area.

Lower Rio Grande Valley: ERCOT continues to assess this growing area's electricity needs. The addition of two Static Var Compensators are expected to be in service in the Valley in late 2018 to help address load growth in this region.