

# Lone Star CREZ Transmission Line Construction

As part of a Competitive Renewable Energy Zone (CREZ) project, Lone Star Transmission is building more than 315 miles of new transmission lines to deliver wind-generated electricity to consumers throughout Texas. The project consists of three 345-kilovolt (kV) transmission line segments aligned through 13 counties. Once completed in 2013, it will be the longest CREZ line in Texas.

## PROJECT RESULTS

*Kleinfelder's proactive communication and collaboration with the project owner and its teaming partner has helped mitigate potential issues while keeping the project on budget and schedule. With an eye on safety, the project has remained injury-free. Landowner intrusion is being managed by limiting noise and maintaining a clean environment during field exploration activities.*



## RUGGED TERRAIN AND ACCESSIBILITY ISSUES

Since the transmission line crosses over 315 miles of terrain with more than 100 geologic formations, including expansive clays, foundation design parameters varied and required ongoing adjustment. The geotechnical investigation consisted of 440 borings, drilled primarily during summer months in extreme heat, posing safety concerns onsite. Due to landowner concerns and accessibility issues, borings could not be drilled in sequence and required extensive mobilization between boring locations.

## COMPREHENSIVE SITE INVESTIGATIONS

Kleinfelder conducted a site investigation to assess geologic conditions and provide geotechnical and design recommendations for foundation design. As Kleinfelder received access to boring locations, drilling teams were quickly mobilized. In addition, Kleinfelder provided construction oversight of the project, pooling experts from across the company to address challenges associated with the diverse geologic conditions. Through its new Power Delivery Services, Kleinfelder is now managing the owner's engineering contractor, overseeing all of the engineering efforts on the project.

### Location:

Texas (statewide)

### Owner:

Lone Star Transmission

