



## VEST & EL DORADO SUBSTATIONS

**Customer:** Undisclosed

**Country:** U.S.-Texas

**Site:** Kermit, Texas

### PROJECT DESCRIPTION

Booth provided full project management, design, material procurement, and construction oversight for two electrical infrastructure projects for two fracking sand mines. This involved the design of three (3) 138 to 13.2 kV Substations with two (2) separate Point-of-Deliveries and three transmission lines (one .5 miles, one 7 miles, one 10 miles), for sand mines in Texas oil field country. Project design included full electrical, structural and transmission design from the interconnecting utility up to the feeder exits, as well as a motorized air break switch that operated after the high-voltage breaker had cleared the fault for each substation.

Substations were set up for 13.2 kV generation as a means of backup to the utility feed. One POI consisted of two (2) banks, each having a radial feed to its own substation. Substation protection design utilized line differential, transformer differential and overcurrent elements. POI protection design utilized line differential, distance and overcurrent elements with provisions for reclosing based on type of fault.

Booth & Associates was responsible for electrical package, relay and equipment specifications, relay settings and commissioning documentation and implementation. Booth engineers commissioned each site and assisted during remote SCADA commissioning.



- » Voltage (kV): **138-13.2kV**
- » Start Date: **2018**- End Date: **2020**
- » Business Units Involved: **Booth & Associates**

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