



TPC SATISFIES ENERGY COMPANY'S NEED FOR A SAFE, DYNAMIC STORAGE & DEPLOYMENT SYSTEM



PROBLEM:

A leading energy company responsible for powering millions of homes and businesses across several Western and Midwestern states was looking for a better way to store and deploy medium voltage cables to be used for the maintenance and repair of utility-owned substations. In the event of unexpected damage and subsequent maintenance of a substation, medium voltage cables first needed to be delivered to a site and then deployed to connect with the mobile substation. The customer's existing method for storage & deployment consisted of a standard trailer from which cables could be deployed in just one direction – requiring the trailer to be parked in the exact orientation necessary to allow cable to pay off in the desired direction. Because space was often tight and/or visibility was poor when the need arose, feasibility was an ongoing issue as well as occasional damage to the trailer, equipment, and cables due to imperfect positioning of the trailer. Personnel were also at risk for injury due to the antiquated, labor-intensive methods that were being used to load, store, and deploy cable.

SOLUTION:

TPC's engineering team collaborated with the customer's engineering team to design an improved trailer system featuring a pivoting reel turret, which allows operators to pull up to the site from any direction, park the trailer, and then easily rotate the reel on the deck of the trailer to achieve the desired positioning. The reels themselves are powered by a gas engine and hydraulic valves, allowing operators to control the rotational speed and direction of the reels by simply engaging a lever. Heavy medium voltage cables are then deployed and retrieved with ease. TPC also provided all medium voltage cables required for the project. Cables were cut to desired length, terminated, electrically tested, and loaded onto the trailer, creating a solution that was ready for deployment from day one.

RESULT:

TPC engineered and delivered a system of superior quality and performance. The customer is now able to properly store medium voltage cables, efficiently deploy them when needed, and safely protect operators from harm and equipment from damage.

