



Power Circuit Monitoring

Czech Republic



Cable starting point



Cable enters the utility tunnel



Cable in utility tunnel

In 2009 Brugg Cables installed a new 110 KV power circuit within the city limits of Prague. To protect valuable assets and to gain experience applying Distributed Temperature Sensing (DTS) technology the end customer chose to equip the new circuit with a fiber optical sensor cable and permanently monitor the temperature profile with an AP Sensing Linear Heat Series instrument.

Approximately half of the power circuit is deployed in a utility tunnel and the other half is buried in tubes / trenches. Using AP Sensing's flexible DTS design, they defined 49 monitoring zones in-line with the varying installation conditions along the circuit.



Immediately after the system's commissioning a nearby heat pipe and a large road crossing were identified as hot spots on the DTS temperature profile.

The Linear Power Series provides continuous monitoring of high power cable temperatures, detecting hotspots, delivering operational status, condition assessment and power circuit rating data (Real Time Thermal Rating - RTTR, Dynamic Cable Rating - DCR).

