

DOKIE WIND FARM



HIGHLIGHTS

- New 144 MW Wind farm
- Outdoor 230 kV Substation, 35 kV collector lines, 230 kV transmission line
- P&C with redundant protection relays networked and utilizing IEC 61850
- Load flow, short circuit, & power quality system studies

PROJECT DESCRIPTION

Private 144 MW wind farm with 48 Vestas V90 wind turbines located in Peace River district of Northern BC. Lex engineered the six overhead 35 kV collector lines, the 35 kV to 230 kV collector and step-up substation, and 230 kV transmission line utility tie to the BC Hydro owned switching station. The substation consists of two 50 MVA transformers, 35 kV outdoor breakers, 24 MVAR Statcom, 35 kV indoor switchgear, separate control building housing the protection relays, SCADA system and a small office. The power system features a fully redundant set of protection relays networked together and uses the IEC 61850 communication protocol for power monitoring, communications, and fast bus tripping

LOCATION

Chetwynd, BC