

COMMISSIONING OF SUBSTATION TRANSFORMERS

VERICO



CLIENT:

UGL and TransGrid

LOCATION:

Collector Village
Southern Tablelands, NSW

PROJECT:

Verico performed the High Voltage testing portion of commissioning works for the Collector Wind Farm Transformers. This was done in accordance with the utilities requirements for newly installed electrical distribution equipment.

SUBSTATION COMMISSIONING

The Collector Wind Farm is a NSW Government granted development for a wind farm, located around 4km from Collector. The wind farm is one of the first in Australia to use the 4.2MW V117 Vestas turbines.

Construction work on the 226.8MW project started in May 2019 and is due to be fully operational in early 2021.

Consisting of fifty four wind turbines that will generate an average of 528GWh of power - an equivalent of 80,000 homes annual power consumption.

Verico deployed a team of HV Diagnostic Technicians and a fleet of service vehicles including its 200kV Test Unit to site as part of the commissioning plan.

HV commissioning works for the Collector Substation involved the testing of two 145MVA 330/132kV transformers.

HIGH VOLTAGE TESTING

Verico's task was to test the transformers to confirm both manufacturing and installation

specifications conform to relevant standards.

The testing included Applied Voltage and Induced Overvoltage Withstand tests, Partial Discharge, Insulation Resistance, Capacitance and Dielectric Dissipation Factor measurement, Frequency Domain Spectroscopy (FDS)/Polarisation Depolarisation Current (PDC) and Frequency Response Analysis.