Laplace
Solutions

CASE STUDIES

Case Study

Kilgallioch Windfarm Substation PLC & Remote Control Panels

Contact	Client	Kirby Group Engineering (End User: Scottish Power Renewables)
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Scope

Our Client, Kirby Engineering, on behalf Scottish Power Renewables, were required to provide a control system to monitor and control the HV infrastructure at Kilgallioch Wind Farm.

The specication required the design, build and commissioning of a PLC system to monitor and control the equipment associated with the HV infrastructure to 96 wind turbines. The PLC system was required to interface with each or the turbines as well as various other infrastructure components and the customer SCADA system.

Our solution was to provide a Laplace remote control panel at the base of each wind turbine to monitor and control the local HV switchgear. Within the main substation we provided a master PLC which communicated with each of the remote control panels. This PLC then provided the main interface to the customer SCADA system and was programmed to interact with each of the remote control panels based on the condition of the HV network and a set of user specic requirements. In additional to the customers SCADA system the PLC was programmed to interface with various building services and items of equipment within the substation utilizing interfaces such as hard wired signalling, IEC61850, Modbus and Ethernet/IP