

**SWANBANK POWER STATION**

**CS Energy**

**Project Overview:**

The project provided PLC control and monitoring for a Power Station start-up after a Blackout situation. The system integrated to a Honeywell DCS system providing the selection of power station auxiliary circuits available for the Essential Bus supply. The PLC controls and monitors the safe start-up of the Generator and subsequent Mains synchronisation of the Power Station.

**Details:**

The system consists of a SLC 5/04 CPU and associated digital and analogue I/O. The PLC connects to the Site DCS via a hardwire link of the necessary signals.

The total system consists of 180+ Real I/O controlling 4 off Generators and associated auxiliary equipment.

The main functions of the Blackstop SLC are:

- Generator test mode (maintenance)
- Detection of station blackout (bus under-voltage)
- Generator start-up
- Supply circuit breaker open/close control
- Supply selection for generator loads
- Generator/Main supply synchronisation

