

CLIENT

Scottish Water / Amey Black
and Veatch

PROJECT

Gorbals Pumping Station

LOCATION

Corselet Road, Darnley,
Glasgow, Scotland

SERVICES PROVIDED

- Outline and detailed design (Electrical and Civil)
- System studies (P28/P29/G5-4)
- 11kV contestable connection work
- On-site private 11kV infrastructure work
- Procurement of equipment
- Installation of 11kV switchgear
- Installation of step-down transformers
- Installation of 11kV cables
- Installation of control/metering cables
- Heavy lifting operations
- Protection design
- Testing and commissioning
- Preparation of hand back documentation

OVERVIEW

IUS completed the electrical construction works associated with the prestigious Gorbals Pumping Station project. The power for the three 1.2 MW pumps required a 3.6 MVA connection to the existing Scottish Power Energy Networks 11kV network. IUS was appointed to undertake the design and installation of the adoptable 11kV contestable elements of the connection works along with the client's 11kV infrastructure within the Pumping Station itself.

DESCRIPTION

The project involved the provision of a bespoke GRP enclosure to house the Distribution Network Operator (DNO) 5-panel 11kV switchboard, with the client's 11kV switchgear located within the fabric of the main Pump House, constructed by others. Two independent 3.6MVA circuits were provided from individual primary substations on the DNO 11kV network. One feeder for normal service conditions and one circuit for the security of supply in the event of a fault on the principal supply. Both 11kV cable routes to the Pumping Station involved extensive excavation over circa 7km, including under three railway bridges and over numerous road bridges. This required additional engineering solutions to negotiate. The IUS scope of works included interface with all stakeholders, most notably Network Rail, local councils, the DNO, SEPA, as well as Scottish Water. The private electrical infrastructure installed by IUS included an eight-panel 11kV switchboard, three 2MVA transformers, one 0.8MVA transformer, 11kV cabling, control/metering wiring, electrical protection, and substation ancillary equipment.