

HV CONTESTABLE CONNECTION MCGILL COACHES, FALKIRK

CLIENT

ZENOBE

LOCATION

Falkirk, Scotland

OVERVIEW

Zenobē (leader of the ScotZEB 2 consortium) is installing EV chargers to support the expansion of McGill's Buses' Midland Bluebird EV bus fleet at its depot in Larbert, Falkirk.

IUS, as an Independent Connections Provider (ICP), designed, supplied and installed a new 11kV supply to the McGill's facility to supply the new charging units. Scottish Power Energy Networks (SPEN) adopted the 11kV connection to the Ring Main Unit (RMU) with the Independent Distribution Network Operator (iDNO), Vattenfall, adopting the unit substation equipment, including the transformer and Low Voltage (LV) cabling to the client's switchboard.

SERVICES PROVIDED

- DNO and iDNO electrical design submission
- Design submission to include substation plinth and earthing system
- Excavations at the Point of Connection (POC)
- DNO cabling route in the carriageway
- Construction of 11kV plinth suitable for 11kV/433V transformer
- Supply and installation of an 11kV/433V 1.5MVA transformer and LV ACB unit
- 11kV underground cable ring circuit from the POC to the intake substation
- LV single-core cabling from a 2500A ACB cabinet to the client's metered incomer section of their EV switchboard.
- Substation GRP enclosure (TR20)



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THE PROJECT

IUS has a contestable connections framework agreement with Zenobē (leader of the ScotZEB 2 consortium), and the IUS design team engaged directly with our client as well as SPEN and Vattenfall to understand the system requirements and expectations for this new High Voltage and Low Voltage installation. With a POC located within the carriageway of Stirling Road, extensive negotiation was needed with the local council to coordinate the excavation work.

This work included duct and High Voltage (HV) cable installation and associated jointing at the point of connection. It was important to minimise the impact on traffic flow. The delivery programme was continually reviewed due to the prolonged wayleave and legal process. The IUS delivery team had to develop practical proposals and methodologies to allow the progress of the HV/LV installation without impacting the other works or the ongoing movement of buses in and around this fully active bus depot.

The installation of the LV bus charging units was completed by others and included being supplied by on-site generators. This required careful consideration as part of the testing and commissioning process to ensure compliance with IUS safety rules. The new system was successfully tested and energised, providing the required mains supply to allow Zenobē and their client to charge and operate their full EV bus fleet.

"Ever since we first engaged with the team on site at the start of the project, they have been professional, helpful, informative, and conscientious in everything they say and do. They went above and beyond, and it is no exaggeration to say that without their foresight and management of the situation under extreme pressure, we would not have energised the site and would not be where we are today."

Brian McCrear - Project Manager - Zenobē

