

PROJECT FACT SHEET

Customer:

Lendlease/Main Roads WA

Project:

Graham Farmer Freeway Tunnel HV RMU Replacements

Project Profile:

Collaborating successfully with our project partners, the Nilsen WA High Energy team safely delivered the High Voltage RMU Upgrade Project at Graham Farmer Freeway Tunnel.

Due to the age of the HV switchgear, the internal mechanisms would operate intermittently via the remote operation panel or from SCADA controls, which would then require the HV operator to stand directly in front of the switchgear to operate. Furthermore, there had been many additions and alterations to the electrical system over the years, which were not reflected in the electrical schematics, causing considerable difficulty for the Lendlease maintenance team when fault finding and carrying out routine works.

The Nilsen WA High Energy team were engaged to remove the existing RMUs and install new Schneider RM6 switchgear with remote switching capability from a newly wired Remote Operation Panel (ROP) and integration to the client's Supervisory Control and Data Acquisition (SCADA) system. In addition, the multiple relevant and redundant electrical schematics were reviewed, cut and compiled to create one Master document which was submitted to the client.

Works included:

- Removal and replacement of 4 x Schneider RM6 RMUs
- Remote Operation Panel (ROP) installation for each RMU
- Supervisory Control and Data Acquisition (SCADA) integration with HV switchgear
- New HV cables and terminations
- All HV switching and permitting performed by Nilsen WA High Energy team
- All testing and commissioning works completed by the Nilsen WA High Energy team
- Temporary closure of Perth's major Freeway Tunnel to enable delivery and removal of HV switchgear
- Compilation of all electrical schematics to create a Master document
- Engaging Nilsen South Australia Switchboards division to build the ROP promoted One Nilsen and further developed the partnership within the business.

Beginning works in September 2020, the project was completed in only six weeks. This involved working with many different parties, including network operator Western Power to coordinate isolations. Our client was especially appreciative as the works were completed without a single interruption to the power supply, meaning our client could continue business as usual during the upgrade.

Consistent, safe and operational electrical equipment is essential for our client and Nilsen are proud to have been able to provide this solution safely, incident-free, on time and on budget.

