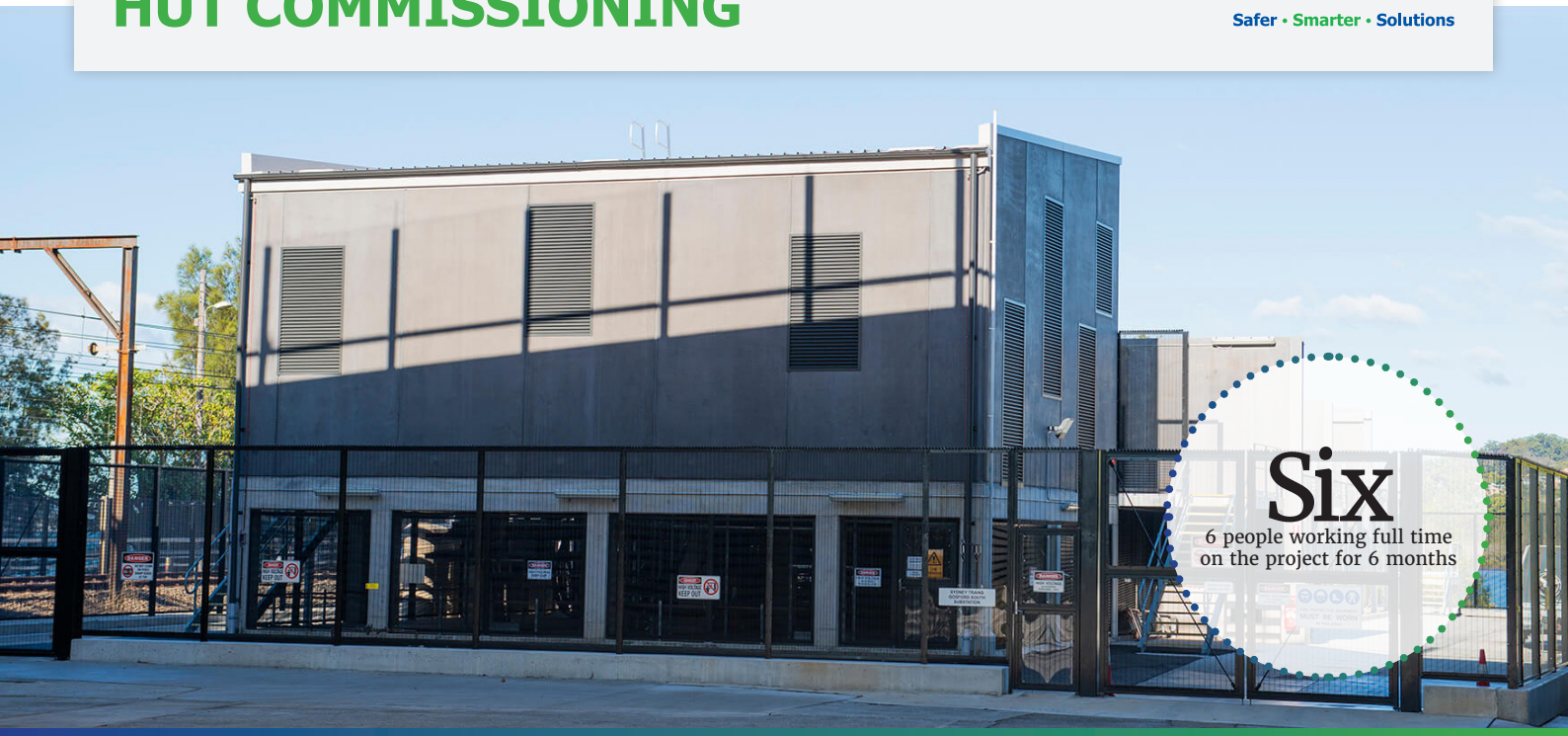
GOSFORD SOUTH SUBSTATION AND WYOMING SECTIONING HUT COMMISSIONING

EnerMech
Safer • Smarter • Solutions



The Gosford South Substation and Wyoming Sectioning Hut works comprised the construction of a new substation at Gosford South and a Sectioning Hut at Wyoming to replace the existing Gosford Substation. Enermech was engaged to manage the commissioning on this project.

Client: Zinfra

Year: 2017

Product/Service: M&EI - Commissioning and Testing

Scope of Work

Development and management of QA completions process for specialised traction equipment

Provision of highly competent multi-skilled personnel to perform testing and commissioning services

Commissioning
- 66kV Mitsubishi switchboard
- 1500V Hawker Siddeley switchboard
- 66/11kV power transformer
- 11/0.4kV distribution transformer
- 66/0.6kV traction transformer
- Rectifier
- Low voltage distribution board
- Automatic transfer switch
- Rail earth contractor / voltage limiting device
- Isolating rail connecting switches
- UPS Commissioning – including Battery discharge testing

Testing
- Circuit breaker timing
- Micom protection relay
- Microelettrica Scientifica protection relay
- Current transformer
- Voltage transformer
- High voltage cable
- Low voltage cable
- SCADA Testing with Sydney Trains

Test Equipment Used

- Omicron CCPC100
- Omicron CMC356
- Omicron CMLIB A
- Omicron CT analyser
- Omicron TD1
- Omicron Cibano 500
- AC Hi-pot tester
- 10kV I.R tester
- 200A Ductor tester
- 60kV VLF tester
- Battery discharge tester (Torkel)
- Process calibrators

Project Delivery

The new sectioning hut was built within the rail corridor close to existing Gosford Substation. The new substation and sectioning hut was designed, constructed and commissioned in close proximity to the existing live operating rail system and fully integrated with new system interfaces to existing electrical, telecommunications and civil infrastructure and installations.

The new 2 x 5MW rectifier 66kV substation will support the 1,500V traction power supply in the area and is required to run the new fleet on the Central Coast and Newcastle rail line.

EnerMech developed and implemented a comprehensive commissioning package that ensured the successful completion of the work to meet the expected power requirements of the future rail network.

Key Benefits

AEO accreditation and large range of HV testing equipment

Comprehensive commissioning package development and implementation

Seamless operations handover and technical support

Highly skilled and competent workforce and modern test equipment technology