CITY EAST
CABLE TUNNEL (CECT)

PROJECT
DETAILS

PROJECT LOCATION:
Corner of Albion & Riley Street, Surry Hills, Sydney, NSW

COMMENCEMENT DATE:
2012

COMPLETION DATE:
2015

TYPE OF CONTRACT:
HV and LV Electrical, Communications and SCADA

CONTRACT VALUE:
$8 Million +

PROJECT MANAGER:
Michael Dart

RAIL MANAGER:
Ray Khairallah

OVERVIEW
TRADE PACKAGE

The extent of the works described in this scope of works propose the construction of a 3.5-metre diameter tunnel that connects the existing City North substation in Sussex Street to a new substation in Riley Street, Surry Hills.

The awarding of the CECT contract follows Star E&I successful completion the Ausgrid's City West Cable Tunnel.

The contract client, Thiess Pty Ltd granted Star the role as M&E Contractor. Star Group is managing all services – including Mechanical-Ventilation, Fire and Hydraulic services

COMMERCIAL
FACTORS

The scope of works under this contract is the supply, installation & commissioning of all tunnel services for the City East Cable Tunnel (CECT).

These services include:

- Electrical- Lighting, Power & Switchboards
- Hydraulics
- Mechanical
- Tunnel Management Control System (TMCS)
- Fire Detection
- Communications
- Radio Communications (Installation Only)

STAR group

PROJECT **CHALLENGES**

- **Access**- There is only two access points to the 3.2KM Tunnel. Riley St & City North Substation
- **Distance**- All staff & materials are co-ordinated to minimise lost time due to the distances in getting to the work face
- High Level WH&S
- Co-ordination of subcontractors
- **Deliveries**- Two points of access to the tunnel and very limited space for storage
- Access and interfacing with existing CSCT & CWCT

PROJECT **SPECIFICS**

The City East Cable Tunnel (CECT) has been constructed from the proposed site of the Riley Street sub-transmission Station (STSS) to the existing City North Substation where the existing City West Cable Tunnel (CWCT) currently terminates. The CECT project also includes the extension to the existing City South Cable Tunnel (CSCT) from the existing Surry Hills shaft to the proposed site of the Riley Street STSS.

The CECT, CSCT and CWCT, when combined, will effectively form an enclosed underground ring network that links major Energy Australia (EA) substations within the Sydney CBD. The CECT and CSCT Extension will be unoccupied except for occasional access for maintenance and inspection.

The Services installed by Star will be fully automated and controlled in key locations.

These services include:

- Tunnel Lighting
- Sump Pump Control at two locations-CH 640 Sump & CH2150 Sump
- Mechanical- Fans will ventilate the tunnel from the Riley St end of the tunnel
- Interface with the fire detection- Detectors are located at key points within the tunnel & Riley St building

Star has also completed three cable ladders the full length of the CECT and the CSCT Extension. These will be used for the reticulation of power, lighting circuits and communications fibres that complete the full ring of the tunnel network.

STAR group