

# Delhi Metro Rail Corporation Limited (DMRC) Phase 1 Turnkey Electrification Solution

Electrification of overhead lines, substations and state-of-the-art SCADA solution

## Customer Benefits

- Efficient and seamless management, monitoring and control of various parameters of the power network
- High system reliability and space saving with compact gas and air insulated switchgear
- Efficient and low noise level power and traction transformers
- Enhanced equipment life and efficient management of spares inventory through Asset Management Services

## ABB Solution

- Traction electrification for line 1 - 45 Kms, 12 substations including 220/33/25 kV receiving cum traction substation
- SCADA systems for entire line 1
- Traction electrification for line 3 - 65 Kms, 28 substations including air insulated and gas insulated 66/33/25 kV receiving cum traction substation
- SCADA systems for entire line 3 including Asset Management Systems (AMS) and Building Management Systems (BMS)
- Civil work including OHE foundations and substation building
- Line 1 commissioned in 2003 and Line 3 commissioned in 2006



SCADA System and Control Room



25kV AC Flexible Over Head Electrification



25kV Traction substation, Feeding post and Pole mounted Interrupters



220/27.5kV Traction Transformers



## ABB's Railway Offerings

- Railway power supply substations – receiving substations, traction substations, auxiliary substations, AC overhead traction electrification
- Solutions for improved power quality- load balancers and filters, static var compensators and STATCON
- Railway power system studies
- Power, traction and EMU (electric multiple units) transformers
- Railway circuit breakers and interrupters
- SCADA for traction power control
- Protection and control terminals
- Auxiliary motors for locomotives with DC and AC traction
- Traction converters
- Turbochargers for diesel locomotives
- Surge arrestors for rail applications
- Building solutions for elevated and underground applications- electrical systems, fire suppression systems, hydraulic systems, environmental control systems, asset management and building management systems



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