PGCIL, Bhatapara, Chhattisgarh
400/220kV substation with automation

Substation for power evacuation up to 500 MW

Customer Benefits

- Facilitating reliable, secure and economic power transmission within and across central region.
- Load data communication facility with Mumbai Load Despatch Centre
- Substation to be remotely operated from Khumari substation located at a distance of 100 kms
- Substation automation system with IEC 61850 compliance
  - High system availability with redundancy
  - Guaranteed system openness for future expansion and integration

ABB Solution

- Turnkey 400kV / 220kV greenfield substation solution with 6 bays at 400 kV and 8 bays at 220kV including auxiliaries
- IEC 61850 compliant Sub-station Automation System. Panels installed in outdoor air-conditioned kiosks with 100% temperature control redundancy
- Outdoor kiosks installed in high voltage yard with reduced cabling
- Complete civil works including control room, fire fighting pump house, roads, fencing and foundations for 400 kV and 220 kV towers and equipment
- Substation commissioned in 2008
Benefits
- Fully interoperable system with IED 670 for protection and control
- Cost-efficient solution through full exploitation of IEDs' functional capability including GOOSE-based functionality
- High system availability with fully redundant operator workstations and independent gateways
- Guaranteed system openness for future hardware and functional extensions through high-quality engineering

ABB's Substation Offerings

ABB offers substation solutions for power transmission, distribution and substation automation and protection by:
- Delivery of turnkey AIS and GIS substations for utility and industrial applications
- Service, rehabilitation and upgradation of existing substations
- Substation automation systems; bay control, unit protection, power system monitoring and wide area system solutions