# Detailed scope of works and Technical Specification

**2X25 kV AT System Electrification of Bina – Katni - Anuppur section, 421 TKms, INDIA:-**

IRCON completed the work of 2 x 25 kV Railway Electrification of Anuppur – New Katni section of Indian Railways Network between June'91 to March'95. The work on the 421 TKM section with 16 stations had to be carried out under traffic blocks. In addition to Railway Electrification, complete work of four-nos. 220/2x25 kV Traction sub-stations and 12 nos. auto transformer on Bina – Katni section was carried out by IRCON. The Project involved complete Design, Supply, Erection, Testing and Commissioning of 2x25 kV polygonal type Overhead equipment 25 kV feeder wire based on SNCF/Japanese design for self-regulating Overhead Catenary system with steel masts. Close coordination and interfacing with Railway Authorities was maintained in planned way to avoid disruption to the heavy goods movement on the section. Main features of the Catenary system were:

- Swiveling type Cantilever assemblies with galvanized steel tubes.
- Three pulley type self regulating equipment
- Portals in station areas.
- 65 mm sq. cadmium copper Catenary wire
- 107 mm sq. electrolytic copper Contact wire
- 25 kV ACSR Feeder Wire
- Four nos. 220/2x25 kV Traction Sub-stations
- 12 nos. Auto Transformer Stations
- Disconnecting Switches

2x25 kV AC system was introduced on Indian Railways for the first time and the work was successfully executed by IRCON in close coordination with Japanese consultants.