Metro Rail: power supply, overhead equipment contract given

Staff Reporter

CHENNAI: The Chennai Metro Rail Limited (CMRL) on Tuesday awarded a contract worth Rs.305 crore for providing power supply and overhead equipment (OHE) to a consortium of Siemens AG, Germany, and Siemens Limited, India. The contract includes design, supply, installation, testing and commissioning of the entire array of power supply systems, a release said.

CMRL will receive power from the Tamil Nadu Generation and Distribution Corporation for a maximum demand of 60 MVA from three 110 kV sub-stations being set up by TANGEDCO at Koyambedu, Alandur and Chennai Central.

Under the power supply contract, three traction sub-stations would be set up to step-down the voltage from 110 kV to 25 kV AC single phase for use in the electric traction system. A uniform 25 kV AC traction power would be supplied to the train through the OHE to be installed along the track.

In the elevated corridor, catenary type OHE as used in Indian Railways would be installed. In tunnels, rigid contact systems are proposed to be deployed. CMRL has selected 25kV AC traction, in view of the energy efficiency, safety and reliability.

The contract also provides for setting up three auxiliary sub-stations at Koyambedu, Alandur and Chennai Central to step down the 110 kV to 33 kV for supply of power to stations, air-conditioning systems, tunnel ventilation systems, lighting and other utilities at the stations. The sub-stations would be gas insulated ones to ensure higher reliability and to make it maintenance friendly.

The 33 kV auxiliary power supply would be distributed through a ring main system to all stations for auxiliary power supply loads.

In the event of power failure, uninterrupted power supply would be ensured by feeding from adjacent sub-station for traction and other essential loads of the station. Further, each station would be equipped with standby diesel generators of adequate capacity as a backup power source.

The entire power supply system could be monitored and controlled through Supervisory Control and Data Acquisition system (SCADA). The remote operation would be managed from centralised operation control centre of CMRL located at Koyambedu.

Besides setting up these facilities, the contract provides for comprehensive maintenance till end of defect liability period of two years after the completion of the project.