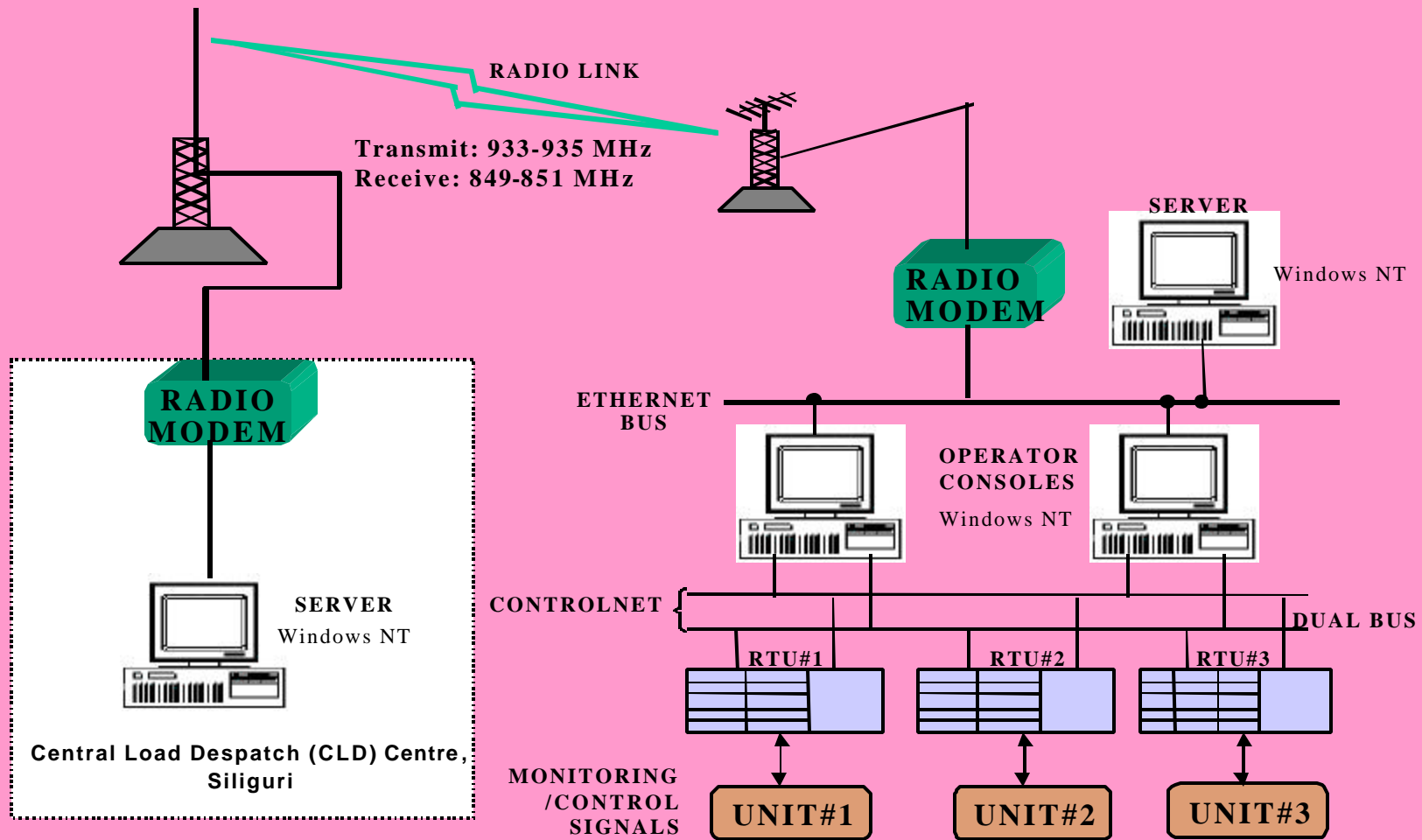


REMOTE MONITORING AND CONTROL SYSTEM FOR TEESTA CANAL FALL HYDEL PROJECT - POWER STATION 1

CDAC had received an order from M/s. West Bengal State Electricity Board (WBSEB) for the design, development and implementation of state-of-the-art SCADA system for their Teesta Canal Fall Hydel Project Power Station – 1 (3x7.5 MW) in Siliguri. The objective of the project is to monitor necessary plant parameters and implement computer control system in order to achieve efficient and economic operation of the plant. The total project value of this turnkey job is Rs. 166.7 lakhs.

The project envisages Data Acquisition of 900 input-output signals and PLC based automatic control at the Power Station level. Besides, the system facilitates remote monitoring & control of power plant from the Central Load Despatch Centre at Siliguri. System engineering & design, equipment supply, development and implementation of control schemes, development of radio modem based remote communication system and installation & commissioning are the major activities in the project.

SCADA SYSTEM CONFIGURATION FOR TCFHEP POWER STATION-1



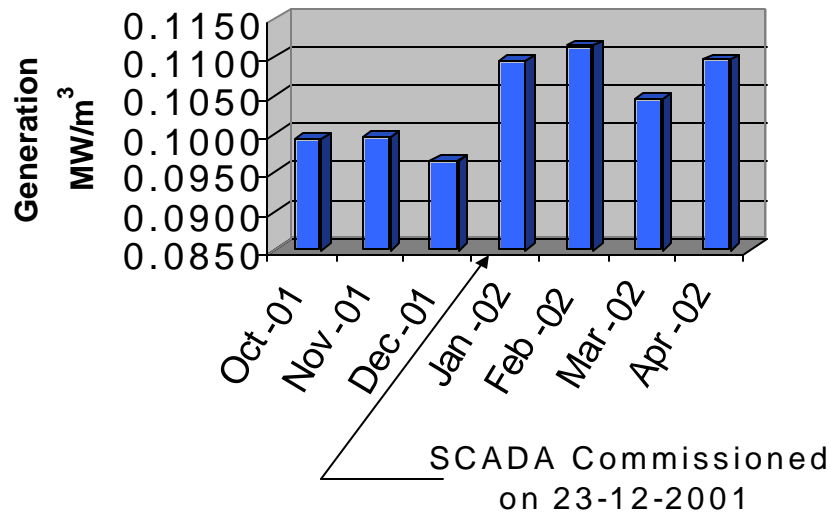
The project has been successfully commissioned and handed over to M/s.WBSEB on 23rd December, 2001.

BENEFITS

The SCADA system implemented at PS-I has achieved quite a lot of benefits to WBSEB. Following are the major benefits derived from the system:

1. Optimization of power generation
2. Complete process monitoring
3. Automatic control of Unit and Common auxiliaries
4. Desktop operation of Turbo-Generator system
5. Improved diagnostics
 - Detection of frequency of compressor switching
 - Detection of gas / air leakage in GCBs in switchyard
 - Detection of water leakage in shaft seal
 - Detection of leakage in oil system
 - Detection of faulty operation of idler valves of governor oil system
 - Detection of amount of choke in fall gate
6. Optimization of strainer operation
7. MIS-Reports

Improvement in Power Generation after SCADA Implementation



The above graph indicates that there is **9.9%** increase in power generation after SCADA implementation.