

Guidelines on Planning of Communication System for Inter-State Transmission System (ISTS)

1. Introduction

In order to achieve safe, secure, stable and reliable operation of the grid as well as its economical and integrated operation, communication system plays a critical role. The communication system may be treated as an integral part of the transmission system. Therefore, it is imperative to carry out the planning for Communication System in Power Sector.

For planning, and coordination for development of communication system for inter-State transmission system, Central Transmission Utility is designated as the nodal agency.

Ministry of Power has formulated this guidelines named as “Guidelines on Planning of Communication System for Inter-State Transmission System (ISTS)”. This guidelines defines the categories of Communication System Schemes for ISTS and their corresponding approval procedure.

2. Objective

Considering the critical role of Communication System in ISTS, a separate guidelines for its planning is essential. This guideline on Planning of Communication System for Inter-State Transmission System (ISTS) is being formulated with the objective to help in efficient, coordinated, smooth, economical and uniform planning of Communication System for ISTS.

3. Applicability

- i. This guideline shall come into force from the date of its issuance by the Ministry of Power.
- ii. The guidelines shall be applicable for communication system for ISTS only.

4. Categorization of Communication Schemes/Packages

Communication Schemes/Packages under this policy are categorized as Category (A) and Category (B). The description of categories is as under:-

Category (A): Communication system directly associated with new ISTS as well as incidental due to implementation of new ISTS elements (e.g. LILO of existing line on new/existing S/s where OPGW/terminal equipment are not available on the existing main line/substations etc.)

Category (B): Upgradation/modification of existing ISTS Communication system pertaining to following:

- Missing Links
- Redundancy/ System Strengthening
- Capacity upgradation (Terminal equipment)
- Completion of life of existing communication system elements
- Other standalone project e.g. Cyber Security, Unified Network Management System (UNMS)
- Adoption of New Communication Technologies

5. Procedure for approval of Communication Schemes/Packages

Category (A): As planning of ISTS Communication System is an integral part of planning of new Inter-State Transmission System, the requirement for communication system linked with new ISTS shall be included in new ISTS package and combined proposal shall be approved as per the directions contained in MoP office order dated 28.10.2021 regarding Re-constitution of the “National Committee on Transmission” (NCT).

Further, Communication requirements which are incidental due to implementation of new ISTS elements (e.g. LILO of existing line on new/existing S/s where OPGW/Terminal Equipment are not available on the existing main line/substations etc.) are also to be approved alongwith that of respective transmission system package.

Category (B):

Communication Schemes/Packages proposed by CTUIL for upgradation/modification of existing ISTS Communication System, standalone projects, adoption of new technologies shall be put up to RPC for their views. RPC to provide their views on the Schemes/Packages proposed by CTUIL within 45 days of receipt of the proposal from CTUIL.

The Schemes/Packages alongwith the views of RPC shall be approved by NCT.

6. Communication system shall be planned in accordance with Central Electricity Authority (Technical Standards for Communication System in Power System Operations) Regulations, Central Electricity Regulatory Commission (Communication System for inter-State transmission of electricity) Regulations, Manual of Communication System Planning in Power System Operation published by Central Electricity Authority and other relevant regulations/guidelines/orders/policies issued by Government of India for development of reliable communication system for the power system.
