

CENTRAL ELECTRICITY REGULATORY COMMISSION

(Communication System for inter-State transmission of electricity) Regulations, 2017, Dated: 15.05.2017

Sl. No.	Description	Summary
1.	Control Period	Nil
2.	Applicability	<ol style="list-style-type: none"> 1. These regulations shall apply to the communication infrastructure to be used for data communication and tele -protection for the power system at National, Regional and inter-State level and shall also include the power system at the State level till appropriate regulation on Communication is framed by the respective State Electricity Regulatory Commissions. 2. All Users, SLDCs, RLDCs, NLDC, CEA, CTU, STUs, RPCs, REMC, FSP and Power Exchanges shall abide by the principles and procedure as applicable to them in accordance with these regulations.
3.	Role of Central Electricity Authority (CEA)	<ol style="list-style-type: none"> 1. CEA shall formulate and notify technical standards, cyber security requirements in accordance with the Cyber security Policy of the Govt of India from time to time, protocol for the communication system for Power Sector within the country including the grid integration with the grid of the neighbouring countries . 2. CEA shall constitute and notify a Standing Committee for Communication System in Power Sector. The Standing Committee shall be responsible to: <ul style="list-style-type: none"> • prepare perspective plan for communication duly considering optimal utilization of transmission assets for communication purposes having regards to the transmission planning carried out by CEA through Standing Committee on Power System Planning. • carry out periodic review of the perspective plan. • monitor and facilitate timely completion of schemes and projects for improving and augmenting the associated communication system along with transmission system in the power sector.
4.	Role of CTU	<ol style="list-style-type: none"> 1. The CTU shall in due consideration of the planning criteria and guidelines formulated by CEA, be responsible for planning and coordination for development of reliable National communication backbone Communication System among National Load despatch Centre, Regional Load Despatch Centre(s) and State Load Despatch Centre(s) and REMCs along with Central Generating Stations, ISTS Sub -Stations, UMPPs, inter-State generating stations, IPPs, renewable energy sources connected to the ISTS, Intra-State entities, STU, State distribution companies, Centralised Coordination or Control Centres for generation and transmission. While carrying out planning process from time to time, CTU shall in addition to the data collected from and in consultation with the users consider operational feedback from NLDC, RLDCs and SLDCs. 2. The CTU shall also plan communication system for the cross border transmission system for cross border exchange of power. 3. CTU shall be the Nodal Agency for supervision of communication system in respect of inter-State communication system and will implement centralized supervision for quick fault detection and restoration. CTU shall prepare Procedure for same and submit to Commission for approval within 60 days of notification of these Regulations.

		4. The CTU shall provide access to its wideband network for grid management and asset management by all users.
5.	Role of National Power Committee (NPC) and Regional Power Committee (RPC)	<ol style="list-style-type: none"> 1. NPC shall be responsible for issuance of the guidelines with the approval of the Commission on "Availability of Communication System" in consultation with RPCs, RLDCs, CTU, CEA and other stakeholders within a period of two months from the date of notification of these regulations. 2. The RPC Secretariat shall certify the availability of communication equipment for CTU, ISGS, RLDCs, NLDC, SLDCs based on the data furnished by RLDC. 3. The RPC Secretariat shall be responsible for outage planning for communication system in its region.
6.	Role of NLDC	<ol style="list-style-type: none"> 1. The National Load Despatch Centre (NLDC) shall be responsible for preparation and issuance guidelines with the approval of the Commission on the "Interfacing Requirements" in respect of terminal equipment, RTUs, SCADA, PMUs, Automatic Generation Control (AGC), Automatic Meter Reading (AMR) Advanced Metering Infrastructure (AMI), etc. and for data communication from the User's point to the respective control centre(s) based on technical standards issued by CEA within 60 days of issuance of technical standards. 2. NLDC shall be responsible for integration of the Communication system at NLDC end for monitoring, supervision and control of Power System and adequate data availability in real-time within 60 days of the issue of the guidelines.
7.	Role of RLDCs	<ol style="list-style-type: none"> 1. The Regional Load Despatch Centre shall be nodal agency for integration and supervision of Communication System of the ISTS, ISGS, SLDCs and IPPs at RLDC end for monitoring, supervision and control of Power System and adequate data availability in real time. 2. RLDC shall collect and furnish data related to Communication System of various users, CTU, RLDC, STU and SLDC to RPCs. 3. RLDCs shall provide operational feedback to CTU.
8.	Role of SLDCs	<ol style="list-style-type: none"> 1. The State Load Despatch Centres shall be nodal agency for integration of Communication System in the intra-State network, distribution system and generating stations at SLDC end for monitoring, supervision and control of Power System and adequate data availability in real time. 2. SLDC shall provide operational feedback to CTU and STU.
9.	Role of STUs	<ol style="list-style-type: none"> 1. The STU shall be responsible for planning, coordination and development of reliable communication system for data communication within a State including appropriate protection path among State Load Despatch Centre, Area LDC, Sub-LDC and DISCOM LDC including Main and backup as applicable along with STU Sub-Stations, intra-State Generating Stations. 2. The STU shall discharge all functions of planning related to the State backbone communication system in consultation with Central Transmission Utility, State Government, generating companies and distribution companies in the State. 3. The STU shall also provide access to its wideband Network for grid management by all users.
10.	Role of Users	<ol style="list-style-type: none"> 1. The Users including renewable energy generators shall be responsible for provision of compatible equipment along with appropriate interface for uninterrupted communication with the concerned control centres and shall be responsible for successful integration with the communication system provided by CTU or STU for data communication as per guidelines issued by NLDC.

		<ol style="list-style-type: none"> 2. The Users shall also be responsible for expansion /up-gradation as well as operation and maintenance of communication equipment owned by them. 3. Users may utilize the available transmission infrastructure for establishing communication up to nearest wideband node for meeting communication requirements from their stations to concerned control centres.
11.	Periodic Testing of the Communication Systems	<ol style="list-style-type: none"> 1. All users that have provided the communication systems shall facilitate for periodic testing of the communication system in accordance with procedure for maintenance and testing to be prepared by CTU within 60 days of notification of Regulations and approved by Commission. 2. Testing process for communication network security should also be included even for third party system if exists in accordance with procedure for maintenance and testing to be prepared by CTU and approved by Commission.
12.	Periodic Auditing of Communication Systems	<ol style="list-style-type: none"> 1. The RPC Secretariat shall conduct performance audit of communication system annually as per the procedure finalised in the forum of the concerned RPC. Based on the audit report. 2. An Annual Report on the audit carried out by respective RPCs shall be submitted to the Commission within one month of closing of the financial year.
13.	Fault Reporting	<ol style="list-style-type: none"> 1. RLDC and SLDC in case of outage of telemeter data, or communication failure shall inform the respective user so that the user shall ensure healthiness of its communication system. In case outage pertains to fault in communication system of other user, the user shall lodge complaints for failure of the communication to the communication system owner for quick restoration. 2. The communication provider shall explore the possibility for route diversion on the existing facility in close co-ordination with concerned provider in case the fault restoration is prolonged. No separate charges shall be paid for such route diversion or channel re-allocation. However, such rerouting shall be discontinued once the original channel is restored.
14.	Communication System Availability	All users of CTU, NLDC, RLDCs, SLDCs, STUs shall maintain the communication channel availability at 99.9% annually with back up communication system, the availability of communication system should be 100%.
15.	Cyber security	<ol style="list-style-type: none"> 1. Communication infrastructure shall be planned, designed and executed to address the network security needs as per standard specified by CEA and shall be in conformity with the Cyber Security Policy of the Govt. of India, issued from time to time. 2. NLDC, shall monitor case of cyber security incidences and discuss them at RPC level and take necessary action as deemed fit. 3. RPC shall ensure that third party cyber security audits shall be conducted periodically (period to be decided at RPC) and appropriate measures shall be implemented to comply with the findings of the audits. The audits shall be conducted by CERT-In certified third party auditors.
16.	Guidelines or Procedures to be issued by different entities under these Regulations	<ol style="list-style-type: none"> 1. NLDC shall prepare Guidelines on "Interfacing Requirements" in terms of these Regulations. 2. CTU shall prepare Procedure on "Centralized supervision for quick fault detection and restoration" and on "Maintenance and testing of communication system" in terms of these Regulations. 3. NPC shall prepare Guidelines on "Availability of Communication system" in terms of these Regulations.

		<p>4. All the entities shall post the draft Guidelines/ Procedure on its website and invite comments from the general public and stakeholders and finalise the guidelines after considering the comments received from them.</p> <p>5. The entities, while seeking approval of the Commission, shall submit a statement indicating its views on the comments received from the general public and stakeholders.</p>
17.	Dispute Resolution	In case of any dispute in giving effect to these regulations, the affected party may approach the Commission with a proper application in accordance with Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 as amended from time to time.