

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड

(भारत सरकार का उद्यम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



पावरग्रिड

केन्द्रीय कार्यालय: "सौदामिनी" प्लॉट सं. 2, सेक्टर-29, गुडगाँव-122 001, (हरियाणा) दूरभाष: 0124-2571700-719, फैक्स : 0124-2571762,
"Saudamini" Plot No. 2, Sector-29, Gurgaon-122 001, (Haryana) Tel. : 0124-2571700-719, Fax : 0124-2571762, Web.: www.powergridindia.com

CIN : L40101DL1989GOI038121

Ref.: CC/RC/Communication System/Draft

Dated 08/11/2016

To,
The Secretary,
Central Electricity Regulatory Commission,
3rd & 4th Floor, Chandralok Building,
36, Janpath,
New Delhi-110001

Sub: - Draft CERC (Communication System for Inter-State transmission of Electricity) Regulations, 2016
- seeking comments/suggestion thereof

Dear Madam,

Kindly refer to CERC's public notice ref. L-1/210/2016/CERC dated 07th September 2016 vide which comments/suggestion were sought on the draft CERC (Communication System for Inter-State transmission of Electricity) Regulations, 2016.

The suggestions and comments of POWERGRID on various issues on draft regulation are hereby submitted in three hard copies.

Thanking you,

Yours faithfully,

(H. K. Mallick)

General Manager (Commercial & Reg. Cell)



**Comments on Draft CERC
(Communication System for Inter –
State Transmission of Electricity)
Regulations, 2016**

November 2016

- A. A comprehensive comments/deliberation on the relevant issues brought out in the draft CERC (Communication System for Inter - State Transmission of Electricity), Regulations, 2016 are brought-out herein below:

1. Regulation 2 "Definitions and Interpretations"

- "2(q) "Operation and maintenance expenses" or "O & M expenses" means the expenditure incurred on operation and maintenance of the communication system, or part thereof, and includes the expenditure on manpower, repairs, spares, consumables, insurance and overheads;"

Comments/Observations

In view of non-availability of any suitable product of insurance exclusively for the transmission line/overhead OPGW for communication, the transmission licensees have to adopt self-insurance. Further, self -insurance scheme is better than external insurance policy as the risk of loss can be mitigated internally out of the self-insurance reserve instead of following with the insurance companies for settlement of claim and also the funds remain available with the licensees except in case of high value equipments having higher risk perception.

Therefore, the definition of O&M expenses should include 'insurance as well as self- insurance'.

The Hon'ble Commission may therefore consider the minor modification:

Proposed change in the Regulation

"Operation and maintenance expenses" or "O & M expenses" means the expenditure incurred on operation and maintenance of the communication system, or part thereof, and includes the expenditure on manpower, repairs, spares, consumables, insurance or self- insurance and overheads;"

2. Regulation 7.2 "Role of CTU"

- "7.2(i) The CTU shall in due consideration of the planning criteria/philosophy and guidelines formulated by CEA, be responsible for planning and coordination for development of reliable national backbone communication system among National Load Despatch Centre, Regional Load Despatch Centre(s) and State Load Despatch Centre(s) along with Central Generating Stations, ISTS Sub-Stations, UMPPs, inter-State generating stations, IPPs, renewable energy sources connected to the ISTS, Centralised Co-ordination/Control Centres for generation and transmission."

Comments/Observations

For development of reliable backbone communication system, CTU shall be required to carry out planning process from time to time as per the requirement for Inter-State Transmission System and Inter-regional links for which the data of authenticated nature would be required to be collected from and in consultation with Users as well as operational feedback from NLDC, RLDC and SLDC.

Accordingly, the Hon'ble Commission may consider adding the following at the end of proviso 7.2(i):

Proposed change in the Regulation

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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/RLDC/SLDC.

Further, the responsibility to provide operational data may be added in the scope & role of NLDC/ RLDC/ SLDC under proviso 7.4, 7.5 and 7.6.

3. Regulation 7.2 "Role of CTU"

"7.2(ii) CTU shall also plan communication up to the national boundary for integration with the communication system for cross border exchange of power."

Comments/Observations

To ensure seamless integration with the international grid and in the interest of the power sector, the communication system including terminal equipments not only up to national boundary but for both ends for cross border exchanges needs to be planned by CTU in consultation with the respective transmission utilities of the neighboring country.

Accordingly, the Hon'ble Commission may consider following modification in proviso 7.2(ii):

Proposed change in the Regulation

CTU shall also plan communication system for the cross border transmission system for cross border exchange of power.

4. Regulation 11 "Fault Reporting"

"6(ii) The communication provider shall explore the possibility for route diversion on the existing facility in case the fault restoration is prolonged. No separate charges shall be

paid for such route diversion or channel reallocation. However such rerouting shall be discontinued once the original channel restored."

Comments/Observations

Communication System being an integrated network, has sender, receiver and communication media. Fault in any of the three may lead to communication outage. The communication providers can explore the possibility for route diversion on the existing facility in their respective system in close co-ordination with the concerned providers where fault has occurred.

Accordingly, the Hon'ble Commission may therefore consider the minor modification to make the understanding of clauses explicit.

Proposed change in the Regulation

All communication providers shall explore the possibility for route diversion on their 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 reallocation. However such rerouting shall be discontinued once the original channel restored.

5. Regulation 12 "Communication System Availability"

"The owner of communication system shall maintain the channel availability up to 99.9%."

Comments/Observations

Communication network is complex involving connectivity of Central Sector and State Sector Communication Systems geographically spread out. The Communication system established by utilities are not having redundant path for most of the station connectivity presently. Improvement in availability can be achieved to some extent only when OPGW based fibre optic network with redundant path across the country is established.

Under the upcoming Communication schemes expansion of communication network is planned, the implementation of which may take some time. Even after expansion, redundant path may not be possible for all stations.

Further, it may also be noted that some of the substations in the communication link pertain to Utilities where the Auxiliary power supply source is not reliable. Maintaining high Availability of such a large communication system having inter-dependence on resources of various utilities is a daunting task.

The OPGW is subject to snapping/high fibre loss in case of natural calamity or tower collapse etc. Under such circumstances transmission licensees may not be penalized by enhancing the normative availability. This might also hamper the preventive maintenance and periodic testing as prescribed in Regulation 10.

Proposed change in the Regulation

It is, therefore, suggested that Communication system channel availability needs to be defined in following ways:

- i) System having Single communication path
- ii) System having Redundant Communication path

The Owner of Communication System shall maintain channel availability upto 90% for systems having non-redundant Communication path and Channel availability upto 95% system having redundant path. These availabilities shall be excluding non-availability of communication channel under force majeure condition.

It is further suggested that suitable provisions for norms for Communication System availability may be provided in the Tariff Regulations, 2014. Under the fees and charges regulations of CERC, there is a system of incentive/ disincentive subject to availability upto benchmark level and beyond. Similar incentive/ disincentive need also to be provided under this regulation.

6. Network Management System for Communication System

Network Management System (NMS) for Communication System is required to be established at NLDC with console at CTU premises/SLDC/ RLDC/ NTAMC.

Accordingly, the Hon'ble Commission may therefore consider inclusion of the same appropriately.

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