

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**No. L-1/261/2021/CERC**

**CORAM:**

**Shri I. S. Jha, Member  
Shri Arun Goyal, Member  
Shri P. K. Singh, Member**

**Date of Order: 14<sup>th</sup> October, 2022**

**In the matter of:**

Approval of 'Detailed Procedure for Connectivity and GNA' under Regulation 39.1 of the Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022.

**Order**

The Commission notified the Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022 (hereinafter called as 'GNA Regulations') on 7<sup>th</sup> June, 2022.

2. In accordance of Regulation 39.1 of the GNA Regulations, CTU was required to submit Detailed Procedure in respect of specified Regulations for approval of the Commission.
3. Accordingly, CTU vide its letter dated 30.09.2022 submitted the 'Detailed Procedure for Connectivity and GNA' along with formats.

4. The Commission has examined the Detailed Procedure submitted by CTU and after incorporating suitable changes hereby approves the “Detailed Procedure for Connectivity and GNA” in terms of proviso to Regulation 39.1 of the GNA Regulations. The approved Detailed Procedure is enclosed as Annexure to this order.
  
5. CTU was also required to submit formats covered under Regulation 39.1 for information of the Commission, which CTU has furnished to the Commission vide its letter dated 30.9.2022 along with the Detailed Procedure. Even though references has been made to the formats in the Detailed Procedure , approval is accorded only to the Detailed Procedure as per Proviso to Regulation 39.1 of GNA Regulations, and the Procedure for Regulation 21 and formats have been noted for information. CTU may carry out modification of Procedure for Regulation 21 or formats as and when considered necessary after due stakeholder consultation inline with applicable regulations, with a information to this Commission.
  
6. We direct Central Transmission Utility to give wide publicity to the Detailed Procedure as approved vide this Order, Procedure for Regulation 21 and Formats for the information of and compliance by all concerned.

7. CTU has proposed to close the portal for fresh applications under the CERC (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) Regulations, 2009 ( hereinafter called as '2009 Connectivity Regulations') for a period for smooth transition. We direct that CTU may close the portal under the 2009 Connectivity Regulations after advance notice to stakeholders.
  
8. The Detailed Procedure shall be effective from the date of coming into effect of GNA Regulations.

**sd/-**  
**(P. K. Singh)**  
**Member**

**sd/-**  
**(Arun Goyal)**  
**Member**

**sd/-**  
**(I. S. Jha)**  
**Member**



Detailed  
Procedure for  
Connectivity  
and General  
Network Access  
(GNA) to the  
ISTS

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# **Detailed Procedure for Connectivity and General Network Access (GNA) to the ISTS**

## **1. Background**

This detailed procedure is issued in compliance with Sub-section (1) of Regulation 39 of “Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022 hereinafter referred to as “GNA Regulations”. All applicants shall abide by the provisions of GNA Regulations.

## **2. Applicability**

This Procedure shall inter alia apply to the processing of applications made by the applicants for Grant of Connectivity and/or General Network Access (GNA) to the Inter-State Transmission System (ISTS), received by the Central Transmission Utility (CTU) or any other actions in accordance with GNA Regulations.

## **3. General Provisions for Application for Grant of Connectivity and GNA**

Application for grant of Connectivity and/or GNA shall be made in line with Regulation 3 of GNA Regulations.

## **4. Eligibility for Connectivity to ISTS**

Eligibility for connectivity to ISTS shall be as per Regulation 4 of GNA Regulations.

## **5. Application for Grant of Connectivity**

- i. The Applicant shall fulfil the conditions of Application for Grant of Connectivity as per Regulation 5 of GNA Regulations, as applicable.
- ii. The information in the application shall be supported by a duly notarized sworn in affidavit by the applicant as per **FORMAT-AFFIDAVIT**.
- iii. The application for Grant of Connectivity and Enhancement of Grant of

Connectivity to ISTS shall be made online in the application format for connectivity as per **FORMAT-CONN-APP-1**.

- iv. A generating station already connected to or intending to connect to the intra-State system shall furnish the copy of the application already made to STU or intimation issued by STU for the quantum of Connectivity to the Intra-State system.
- v. An applicant shall not be eligible for connectivity to both Intra-State Transmission System and Inter-State Transmission System for the same capacity.
- vi. A generating station which is authorized as Lead Generator/ESS by one or more generating station(s) or ESS(s) for applying for Connectivity to the ISTS at a single connection point, is required to submit an agreement (model agreement as per **FORMAT-CONN-LEAD**) duly signed between the Applicant and the other Generating Station(s) or ESS(s), as applicable.
- vii. An Applicant applying for grant of Connectivity at (i) a terminal bay of an ISTS sub-station already allocated to another Connectivity grantee or (ii) switchyard of a generating station having Connectivity to ISTS, is required to submit an agreement (model agreement as per **FORMAT-CONN-SHARE**) duly signed between the Applicant and the said Connectivity grantee or the generating station having Connectivity to ISTS, as the case may be, for sharing the terminal bay or the switchyard and the dedicated transmission lines, if any.
- viii. Two or more Applicants applying individually for grant of Connectivity at a common terminal bay are required to submit an agreement (model agreement as per **FORMAT-CONN-SHARE**) duly signed by such Applicants for sharing the dedicated transmission lines and the terminal bay(s).
- ix. In case of multiple applications submitted by a single person/organization, each of the application shall be supported by a separate sworn in

- affidavits in original duly notarized.
- x. Application fees along with applicable taxes are to be paid directly at online application portal.
  - xi. As per Regulation 5.2, a generating station or ESS may apply as per **FORMAT-CONN-APP-2** to add additional generation capacity, including ESS within the quantum of connectivity granted and CTUIL will convey approval as per **FORMAT-CONN-INT-2** for the same. No application fees shall be required on this account. Provided that for additional capacity, applicant shall furnish technical connection data as per applicable format and the **FORMAT-CONN-TD-4** issued in this regard shall become an integral part of Connectivity Agreement.
  - xii. A typical flow chart indicating various steps and timelines involved in processing of Connectivity applications is given at **Appendix-A**.
  - xiii. The Applicants who have been granted Connectivity to ISTS for the generation projects based on particular renewable energy source(s) (with or without ESS) may, for the same granted connectivity, change to another renewable energy source(s) (with or without ESS) in part or full, subject to approval by CTU, keeping in view of outcome of system studies. The entity shall submit the Technical Data for changed renewable energy source(s) and CTU shall incorporate the necessary change in connectivity agreement in line with GNA Regulations.

## **6. Interconnection Study by The Nodal Agency and ATS:**

- 6.1. (a) On receipt of applications for grant of Connectivity, the Nodal Agency shall carry out interconnection study for transfer of power over ISTS under GNA as per Regulation 6 of the GNA Regulations. Thus, the objective of interconnection study shall be to identify transmission system for integration and evacuation of Connectivity quantum of generation projects with ISTS grid for enabling the Power transfer for GNA.
- (b) In case of bulk consumer and distribution licensee, transmission system

would be planned to enable absorption of power by respective entity corresponding to their GNA quantum.

(c) As per proviso to Regulation 6.1, the existing ISTS shall include (i) transmission system which has been awarded for implementation, as on the last day of the month in which application for grant of Connectivity complete in all respects, has been received, and (ii) If any additional transmission system gets awarded for implementation before completion of interconnection study.

6.2. Of the augmentation requirement as identified under the Regulation 6.1 of the GNA Regulations, augmentation required for immediate evacuation of power of the Applicant (s), excluding terminal bay(s) for DTL, shall be considered as the Associated Transmission System (ATS) for the Applicant(s).

6.3. The augmentation of transmission system may constitute following two components:

- i. Augmentation required for immediate evacuation of power of the Applicant(s), excluding terminal bay(s) for DTL, which shall be considered as the Associated Transmission System (ATS) for the Applicant(s).
- ii. The balance augmentation other than for immediate evacuation of power of the applicant, shall be considered as common network expansion system for strengthening ISTS.

6.4. In cases where augmentation requirement has been identified under Regulation 6.1 without ATS but for common network expansion , such cases shall be dealt under Regulation 7.1, 8.1 and 8.2 for the purpose of Conn-BG1, Conn-BG2 and Conn-BG3.

## **7. In-principle Grant of Connectivity by the Nodal Agency**

- i. In-principle Grant of Connectivity by the Nodal Agency shall be as per the Regulation 7.
- ii. Further, in case Network Expansion and ATS are not required, the intimation for In-principle grant of connectivity shall be issued as per



- FORMAT-CONN-INT-1A** within 30 days from the last day of the month in which the application had been received.
- iii. The entity that has been intimated in-principle grant of Connectivity, shall submit Conn-BG1, Conn-BG2 and Conn-BG3, as applicable, within 1 (one) month from intimation of in-principle grant of Connectivity, failing which the application for Connectivity shall be closed and application fee shall be forfeited in accordance with Regulation 8.2(c) of GNA Regulations.
  - iv. In case ATS are required, the intimation for In-principle grant of connectivity shall be issued as per **FORMAT-CONN-INT-1A** within 60 days from the last day of the month in which the application had been received in accordance with Regulation 7.2 of GNA Regulations.
  - v. For cases covered under clause 6.3 of this Procedure, the intimation for In-principle grant of connectivity shall be issued as per **FORMAT-CONN-INT-1A** within 60 days from the last day of the month in which the application had been received
  - vi. The entity that has been intimated in-principle grant of Connectivity, shall submit its consent in accordance with Regulation 8.3 of the GNA Regulations along with Conn-BG1, within 1 (one) month from issuance of in-principle grant of Connectivity, failing which the application for Connectivity shall be closed and application fee shall be forfeited.

## **8. Connectivity Bank Guarantee**

- i. Connectivity Bank Guarantee shall be submitted by an Applicant in line with Regulation 8.
- ii. The Nodal Agency viz. CTU, within 6 (six) months of furnishing of Conn-BG1 as per clause 8.3(a) of GNA Regulations, shall intimate to such entity, (i) amount of Conn-BG2 to be furnished towards ATS and terminal bay(s) for DTL, which shall not exceed the estimated cost intimated under Regulation 7.2, (ii) the timeline for completion of ATS and terminal bay(s)

for DTL, and (iii) firm date of start of Connectivity as per **FORMAT-CONN-INT-1B**.

- iii. Conn-BG1, Conn-BG2 and Conn-BG3 for cases covered under Clause 6.4 of this Procedure shall be in accordance with Regulation 8.1 and Regulation 8.2 of GNA Regulations. In case of enhancement of Connectivity quantumor new application for Connectivity by the same applicant for same terminal bay and DTL, CONN-BG1 shall not be taken for the subsequent application. However, the CONN-BG1 submitted with first application shall be returned within thirty (30) days of declaration of commercial operation of full capacity, including the enhanced capacity of the Connectivity grantee connected at same terminal bay.
- iv. Bank Guarantees (BGs) shall be submitted by applicants as per **FORMAT-CONN-BG**.

## 9. Final Grant of Connectivity by the Nodal Agency

The Nodal Agency shall intimate the final grant of Connectivity to the entity as per Regulation 9 of GNA Regulations as per **FORMAT-CONN-INT-1C**.

## 10. Connectivity Agreement

- i. Within 30 days of the final grant of Connectivity (as per **FORMAT-CONN-INT-1C / FORMAT-CONN-INT-2 / FORMAT-CONN-TRANS-INT-3**), the entity shall submit the Technical Data (indicating Tentative or Final) as per **FORMAT-CONN-TD-1** for RE Generator / ESS, **FORMAT-CONN-TD-2** for Thermal/ Hydro/ Nuclear generating stations including Pumped Storage Projects (PSP), and **FORMAT-CONN-TD-3** for Bulk Consumer/Distribution Licensee.

The Transmission Licensee for physical connection to ISTS, shall submit the requisite technical data and shall sign the Connectivity Agreement as per IEGC.

- ii. If the submitted Technical Data is tentative, then the Connectivity Agreement as per **FORMAT-CONN-CA-5** shall be signed within thirty (30)

days of submission of the tentative Technical Connection Data between the Nodal Agency and the entity which has been intimated final grant of Connectivity. On signing of the Connectivity Agreement such entity shall become the Connectivity grantee. In such case, final Technical Data shall be submitted by the entity at least one (1) year prior to physical connection with the ISTS. CTU shall scrutinize the submitted data within thirty (30) days of submission and inform regarding discrepancies (if any). Upon rectification of all discrepancies by the entity, CTU within thirty (30) days shall intimate the connection details, inter alia, details of protection equipment, system recording, SCADA and communication equipment, under Regulation 10.1 as per **FORMAT-CONN-TD-4** based on the inputs provided by the connectivity grantee. The **FORMAT-CONN-TD-4** shall automatically become an integral part of already signed **FORMAT-CONN-CA-5**. Physical connection to ISTS shall be permitted only after issuance of **FORMAT-CONN-TD-4**.

- iii. If the submitted Technical Connection Data is final, CTU shall scrutinize the submitted data within thirty (30) days, and inform regarding discrepancies (if any). Upon rectification of all discrepancies by entity, CTU within thirty (30) days shall intimate the connection details, inter alia, details of protection equipment, system recording, SCADA and communication equipment, under Regulation 10.1 as per **FORMAT-CONN-TD-4** based on the inputs provided by the connectivity grantee. The Connectivity Agreement as per **FORMAT-CONN-CA-5** shall be signed between the Nodal Agency and the entity which has been issued **FORMAT-CONN-TD-4** within thirty (30) days. In such case, physical connection to ISTS shall be permitted only after signing of **FORMAT-CONN-CA-5**.
- iv. Subsequent to issuance of **FORMAT-CONN-TD-4**, if there is any change in technical connection data provided by the applicant, it shall submit the revised technical data to CTU with full justification following which CTU shall process the same for revision in **FORMAT-CONN-TD-4** within thirty (30) days after receipt of complete data. Such request shall be allowed

only once at least three (3) months prior to physical connection to ISTS. However, upon physical interconnection with ISTS, revised technical data, if any, shall be provided to CTU for information and record.

## 11. Monitoring by the Nodal Agency

- i. Connectivity Grantee shall update the status of implementation of work under its scope including dedicated transmission lines, every quarter to Nodal Agency as per **FORMAT-CONN-STATUS-CG** through monitoring portal. The Nodal agency shall update the same on its website.
- ii. The Nodal Agency shall update the status of implementation of the ATS, Network Expansion, and terminal bays in respect of all Connectivity Grantees, every quarter, on its website as per **FORMAT-CONN-STATUS-TS**, as per inputs received from transmission licensees.
- iii. Joint Coordination Committee (JCC) meetings shall be conducted on quarterly basis for each region for coordination and deliberation on issues in implementation of generation projects (including dedicated lines along with associated line bays) and associated ISTS scheme.
- iv. The Nodal Agency shall display the updated status of allocation of terminal bay(s), inter alia, quantum of Connectivity granted bay-wise and balance quantum for which Connectivity can be granted bay-wise, at existing or proposed ISTS sub-stations on its website and the same shall be updated on monthly basis as per **FORMAT-CONN-STATUS-BAY**.

## 12. Dedicated Transmission Lines and Bay(s)

12.1. The dedicated transmission lines and Terminal Bay(s) shall be established, operated and maintained in line with Regulation 12 of GNA Regulations.

12.2. Dedicated Transmission Line (DTL):

- i. The DTL shall be of voltage class matching with the ISTS sub-station voltage at which it is to be connected after allocation of bay.
- ii. Unless otherwise indicated at the time of grant of Connectivity, the power