Central Electricity Regulatory Commission

New Delhi

No. L-1/261/2021/CERC Dated: 26th January 2022

Draft Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2021.

Explanatory Memorandum

1. Background

1.1. Robust transmission system is critical infrastructure for faster integration of generation particularly upcoming renewable energy projects, unhindered operation of a competitive electricity market and development of a resilient Grid. Transmission System synergises the two ends of the power system i.e. i) different types of generation facilities and ii) ever increasing demand. Open access to transmission system with increasing penetration of renewable energy projects having shorter gestation period and increasing number of players in the power sector, has posed new challenges in development of optimum transmission infrastructure.

1.2. After implementation of the Electricity Act, 2003, this Commission framed Regulations on Open Access in inter-state transmission system in 2004 which were repealed in 2009 with notification of the Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium term Open Access to the inter-State Transmission and related matters) Regulations, 2009 (in short, "the 2009 Connectivity Regulations"). The Commission also notified the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 which was repealed in 2020 upon re-enactment of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020 (in short, "the Sharing Regulations") in May 2020.

1.3. The Central Electricity Authority (CEA), the Central Transmission Utility (CTU)

and the Power System Operation Corporation (POSOCO) had sent their comments on various aspects related to the 2009 Connectivity Regulations during 2009-2014. Several independent power producers (IPPs) had also raised concerns with regard to the 2009 Connectivity Regulations and issues faced by them. Further, a need was also felt to move towards a more market friendly approach in open access rather than undertaking construction of transmission system only if there is firm users requisition such construction.

1.4. In view of the issues raised by CEA, CTU, POSOCO and IPPs, "Staff Paper on Transmission Planning, Connectivity, Long Term Access, Medium Term Open Access and other related issues" was published in September 2014 to seek views of stakeholders vide public notice dated 19.9.2014 and invited comments.

1.5. Further, the Commission vide Office Order dated 8.12.2015 formed a committee to "Review Transmission Planning, Connectivity, Long Term Access, Medium Term Open Access and other related issues" (in short, "the Mata Prasad Committee") under Chairmanship of Shri Mata Prasad, an expert on power systems.

1.6. The Mata Prasad Committee held wide consultation with a number of experts, CEA, CTU, POSOCO, Ministry of Power (MoP), power system experts, representatives of States (State Transmission Utilities/ Distribution Companies) and representatives of generators during January-May 2016 and submitted its report to the Commission in September 2016.

1.7. Based on the report of the Mata Prasad Committee and other inputs, the Commission vide notification dated 14.11.2017 issued the draft Central Electricity Regulatory Commission (Grant of Connectivity and General Network Access to the inter-State transmission system and other related matters) Regulations, 2017 (hereinafter referred to as 'the 2017 Draft GNA Regulations') and comments were invited from stakeholders.

1.8. Workshop was organized on the 2017 Draft GNA Regulations involving stakeholders of Northern Region (NR) and Western Region (WR) on 10.1.2018. Similar workshops were held for stakeholders of Eastern Region (ER), Southern

Region (SR) and North-Eastern Region (NER) on 12.1.2018 and with representatives of Central Sector Generating Stations, Association of Power Producers (APP), transmission licensees, electricity traders and power exchanges on 12.2.2018. In the workshops, concepts of the 2017 Draft GNA Regulations were presented to the participants and various queries raised by the participants were clarified.

1.9. Public hearing on the draft 2017 GNA Regulations was held on 4.4.2018.

1.10. However, subsequently following important developments have taken place as regards Connectivity and open access:

(a) Based on the issues of Connectivity for renewable energy generating stations that came up in Petition No. 145/MP/2017, the Commission had decided a mechanism vide order dated 29.9.2017 in the said petition and vide order dated 15.5.2018, the Commission approved the Detailed procedure for "Grant of connectivity to projects based on renewable sources to inter-State Transmission System" under Regulation 27 of the 2009 Connectivity Regulations.

(b) The Commission vide notification dated 9.1.2019, notified the 7th Amendment to the 2009 Connectivity Regulations, inter alia, incorporating the provisions of the aforesaid Detailed Procedure dated 15.5.2018.

(c) The Detailed Procedure dated 15.5.2018 was revised vide order dated 20.2.2021.

(d) Waiver of ISTS (inter-State Transmission System) charges and losses was extended for renewable energy projects.

1.11. Accordingly, after considering the developments as stated above and the comments received on the 2017 Draft GNA Regulations, the draft Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2021 (hereinafter referred to as 'the 2021 Draft GNA Regulations') have been proposed.

2. The 2021 Draft GNA Regulations consists of broadly three sections - (A)

Connectivity, (B) General Network Access (GNA), and (C) Temporary GNA (T-GNA).

(A) Connectivity

(a) Eligible entities who may seek Connectivity to ISTS have been delineated.

(b) Generating stations may seek Connectivity to ISTS which shall be equal to the installed capacity of the station except in case of renewable hybrid generating stations who can seek Connectivity for less than installed capacity.

(c) The Connectivity grantees shall be deemed to have been granted GNA, equal to the quantum of Connectivity from the start date of Connectivity.

(d) Generating station may be connected to both intra-State transmission system and inter-State transmission system.

(e) Connectivity Applicants shall submit requisite Connectivity Bank Guarantees which shall be returned in 5 equal parts over 5 years after COD of corresponding generation capacity.

(f) In case of relinquishment of Connectivity specified Connectivity bank guarantee shall be encashed in case associated system or ISTS bays has been awarded for implementation.

(g) Connectivity granted to a parent company may be utilised by its subsidiary and vice versa.

(h) In case of Renewable Energy Generating Station, Connectivity can be split in parts and transferred to another person, after COD of such part.

(i) One-time GNA charge @ Rs. 1 lakh/MW shall be furnished by entities that shall get Connectivity to ISTS.

(j) Applications for Connectivity, Long Term Access, Medium Term Open Access and Short Term Open Access in terms of the 2009 Connectivity Regulations that are in different stages as on the date of coming into effect of these Regulations may be withdrawn or converted into applications as made under these Regulations.

(B) GNA

(a) Each State shall have a GNA to ISTS and on the date of coming into effect of these Regulations, it shall be based on drawal of power from ISTS during the last 3 years.

(b) Additional GNA may be sought by States as per their requirement.

(c) A state will be entitled to draw power within its GNA. Any drawal beyond GNA shall be with additional charges.

(d) GNA once granted shall remain valid until relinquished.

(e) States shall be able to schedule power under various contracts based on their assessment of merit order on day ahead basis within their GNA. This flexibility will help them optimise their overall procurement cost.

(f) Additional GNA may be sought by STUs (State Transmission Utilities) on behalf of intra-State entities, once in a financial year.

(g) GNA granted to a State may be utilized by another State.

(h) STU may relinquish GNA on behalf of identified Intra-state entity and the concerned Intra-State entity shall pay relinquishment charges that shall be equal to 60 times the transmission charges paid by such intra-State entity for the last billing month, corresponding to the relinquished quantum.

(i) Intra-State entities granted GNA under the 2021 Draft GNA Regulations may relinquish full or part GNA and shall pay relinquishment charges corresponding to the relinquished quantum for 60 months or balance period of the GNA whichever is lower.

(C) T-GNA

(a) Temporary General Network Access (T-GNA) may be granted to a buyer or an entity on behalf of the buyer for one time block and up to 11 months.

(b) T-GNA shall be granted over the surplus capacity on the existing ISTS.

(c) T-GNA shall be applied and processed through a single window electronic platform viz. National Open Access Registry (NOAR).

(d) T-GNA may be applied under two categories viz. bilateral and collective transactions. Bilateral transaction is sub-categorized into Advance application and Exigency application.

3. The salient features of the 2021 Draft GNA Regulations have been provided in the following paragraphs.

4. Application Fee and Application Process

(a) The Application fee for grant of Connectivity and GNA to ISTS has been

proposed as Rs.5 lakh along with applicable taxes for each application of Connectivity or GNA. STUs are exempted from payment of application fees for grant of GNA.

(b) The application fee has been reduced in comparison to the provisions of the 2009 Connectivity Regulations considering suggestions of stakeholders received from time to time and has been made uniform.

5. Connectivity to ISTS

5.1. Eligibility for seeking Connectivity to ISTS

The entities eligible to seek Connectivity to ISTS have been proposed in Regulation 4.1. As per the 2009 Connectivity Regulations, Renewable Energy Implementing Agency (REIA) is also allowed to seek Connectivity to ISTS on behalf of REGS (renewable energy generating station). This provision was allowed vide 7th amendment of the 2009 Connectivity Regulations on request of Solar Energy Corporation of India (SECI) as noted in the Statement of Reasons dated 9.1.2019. However, no REIA including SECI has applied for Connectivity/LTA and therefore, the same is not provided in the proposed regulations.

5.2. Quantum of Connectivity

(a) It is proposed that Connectivity may be applied for following quantum:

Sr. No.	Applicant	Connectivity Quantum
1	Generating Stations including REGS	Equal to Installed Capacity
2	Renewable Hybrid Generating Station	Less than or equal to the installed capacity
3	Captive generating plant	Maximum injection to ISTS
4	Standalone ESS (energy storage system)	Maximum injection to ISTS or proposed maximum drawal from ISTS, whichever is higher
5	Renewable Power Park Developer	Quantum for which it has been authorised by the Central Government or a State Government

Illustrations:

i. Coal-based thermal power generating station having installed capacity of 1200 MW shall apply for Connectivity of 1200 MW.

ii. Captive generating plant having installed capacity of 600 MW with proposed maximum injection to ISTS as 400 MW shall apply for Connectivity of 400 MW.

iii. Standalone ESS with proposed maximum drawal from ISTS as 50 MW and proposed maximum injection to ISTS as 60 MW shall apply for Connectivity of 60 MW.

iv. Generating station having installed capacity of 1000 MW and it is already connected to STU for 500 MW, may apply for connectivity to ISTS for balance 500 MW.

v. Renewable Hybrid Generating Station having co-located 500 MW of solar generation capacity, 500 MW of wind generation capacity and 100 MW of ESS, shall apply for Connectivity of 1100 MW (500 MW + 500 MW + 100 MW) or less.

vi. Coal-based thermal power generating station having installed capacity of 1200 MW with co-located ESS of 10 MW shall apply for Connectivity of 1210 MW (1200 MW + 10 MW) under (Regulation 5.1). In case such coal generating station wish to utilise Connectivity of 1200 MW for such ESS, it may apply for Connectivity for ESS within the Connectivity of 1200 MW under Regulation 5.2 after obtaining Connectivity for 1200 MW but limit its injection to 1200 MW.

vii. Coal-based thermal power generating station having installed capacity of 1200 MW and already having Connectivity of 1200 MW proposing to install ESS of 10 MW and solar generation capacity of 20 MW at the same location but limit its injection to 1200 MW, may apply for adding the generating capacity of ESS (10 MW) and solar (20 MW) within existing Connectivity of 1200 MW.

(b) Connectivity to be applied and granted has been proposed to be equal to the installed capacity (with some exceptions) taking into consideration the auxiliary power consumption as well as provisions of the Grid Code that require all generating stations to provide primary response by instantaneously picking up to 105-110% of their MCR (maximum continuous rating).

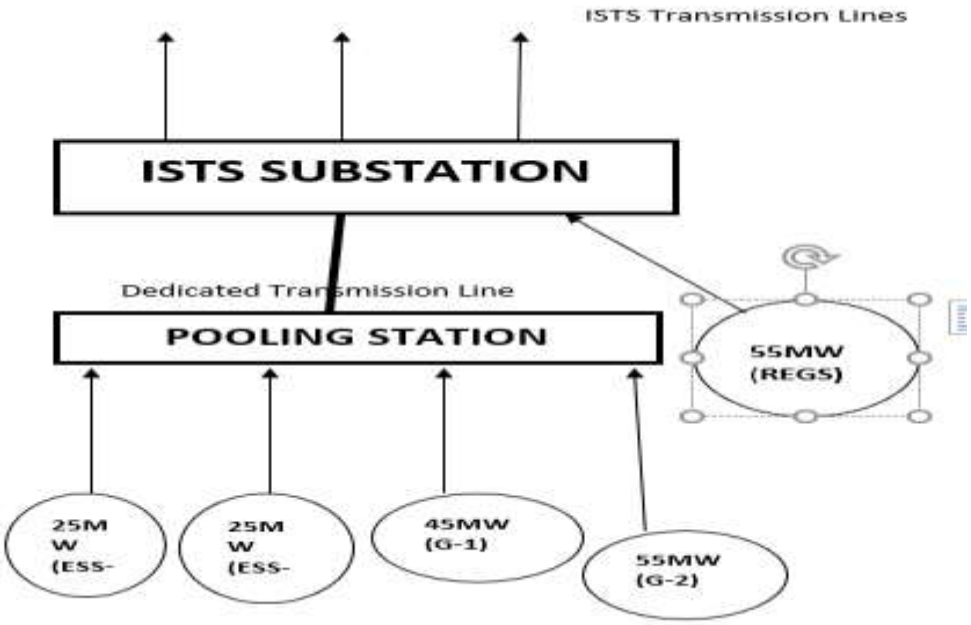
5.3. Lead Generator and Lead ESS

The lead generator and lead ESS is proposed in Regulation 4.1 of the 2021 Draft GNA Regulations:

*"**4. Eligibility for Connectivity to ISTS***
***4.1.** The following entities shall be eligible as Applicants to apply for grant of Connectivity or for enhancement of the quantum of Connectivity:*
(a) Generating station(s), including REGS(s), with or without ESS, with an installed capacity of 50 MW and above individually or with an aggregate installed capacity of 50 MW and above through a Lead Generator or a Lead ESS;
….
(c)Standalone ESS with an installed capacity of 50 MW and above individually or with an aggregate installed capacity of 50 MW and above through a Lead ESS or Lead Generator;
…."

Illustration:

Suppose there is ESS-1 (installed capacity of 25 MW), ESS-2 (installed capacity of 25 MW), generator G-1 (installed capacity of 45 MW) and generator G-2 (installed capacity of 55 MW). ESS-1, ESS-2, G-1 and G-2 may authorize one amongst themselves as Lead Generator or Lead ESS which shall apply for Connectivity on behalf of them. This may be seen from the following schematic diagram:



5.4. Connectivity to both ISTS and intra-State transmission system

(a) The 2009 Connectivity Regulations as well as Detailed Procedure made thereunder require that Connectivity for the same capacity cannot be taken from both

ISTS as well as intra-State transmission system.

(b) The following is proposed in the 2021 Draft GNA Regulations so as to avoid any redundant transmission systems:

"*4.3 A generating station, already connected to or intending to connect to intra-State transmission system shall also be eligible as an Applicant for Connectivity. ….*
5.1 An Applicant, which is a generating station including REGS, shall apply for grant of Connectivity to the Nodal Agency for the quantum equal to the installed capacity of the generating station:
Provided that if such an Applicant already has Connectivity to intra-State transmission system for part of its installed capacity, it may apply for Connectivity to the ISTS for a quantum not exceeding the balance of the installed capacity;
…."

(c) The scheduling of power and payment of transmission charges shall be governed as per provisions of the Grid Code and the Sharing Regulations.

(d) Though the actual power flow through ISTS or intra-State transmission system will vary depending on load and generation scenario, liability of transmission charges shall be based on the access sought with each system.

5.5. Connectivity through electrical system of a generating station

(a) Regulation 2(1)(b)(i)(e) of the 2009 Connectivity Regulations provides for Connectivity to any Renewable Energy Generating Station of 5 MW and above capacity developed by a generating company within or outside the premises of its existing generating station seeking Connectivity to the existing connection point with ISTS through the electrical system of the generating station.

(b) Some stakeholders have suggested providing Connectivity to other entities through electrical system of existing generating station in order to promote renewable energy. Ministry of Power vide letter dated 11.2.2021 has, under Section 107 of the Act, issued directions to allow Connectivity through electrical system of existing generating station to any entity other than the generating company.

(c) Accordingly, the 2021 Draft GNA Regulations has proposed to allow Connectivity to any REGS or a standalone ESS with an installed capacity of 5 MW and above (which may be developed by an entity other than the generating company through

whose electrical system the Connectivity is being sought) through the electrical system of a generating station already having Connectivity to ISTS. However same shall be subject to available capacity as assessed by CTU in case the quantum of Connectivity sought is less than 50 MW. Following is proposed in this regard:

"4.1 The following entities shall be eligible as Applicants to apply for grant of Connectivity or for enhancement of the quantum of Connectivity:

....

(e) REGS or standalone ESS with an installed capacity of 5 MW and above applying for grant of Connectivity to ISTS through the electrical system of a generating station already having Connectivity to ISTS:

....

5.6 An Applicant may apply 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, with an agreement 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. The applicable Connectivity Bank Guarantee as per Regulation 8 of these regulations shall be submitted by such Applicant.

....

5.8 The application for grant of Connectivity shall contain, inter alia, the following details, as applicable, duly supported with relevant affidavit, as stipulated in the Detailed Procedure for Connectivity and GNA issued in accordance with Regulation 39.1:

....

(viii) In case of application through Lead generator or Lead ESS, as the case may be, the Agreement for sharing the dedicated transmission lines and terminal bay and the consent of the Lead Generator or Lead ESS, as the case may be, to be responsible for compliance of the provisions of the Grid Code and other regulations of the Central Commission;

...."

5.6. Connectivity for additional generation capacity within the quantum of Connectivity granted

(a) Third proviso of Regulation 8(1) of the 2009 Connectivity Regulations provides that an entity, with prior approval of CTU, can utilize the existing Connectivity for additional generation capacity (for same or hybrid of renewable sources), subject to the condition that net injection at any point of time does not exceed the quantum of Connectivity granted.

(b) Regulation 5.2(h) of the Grid Code provides that scheduling for more than 100% MCR is allowed in case of hydro-generating stations to avoid spillage of water.

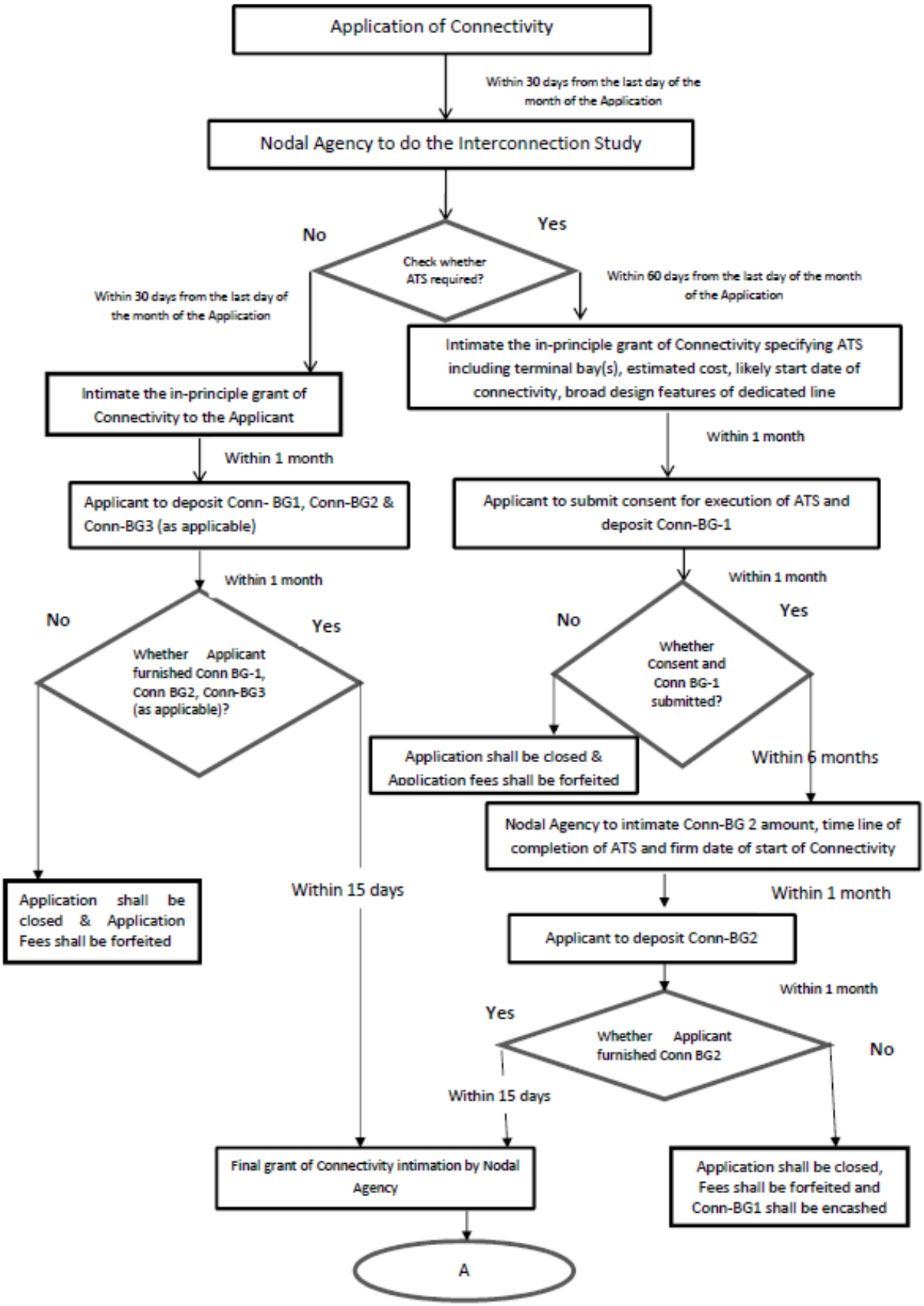
(c) Taking into consideration the existing provisions of the 2009 Connectivity Regulations and the Grid Code, the 2021 Draft GNA Regulations has proposed as follows:

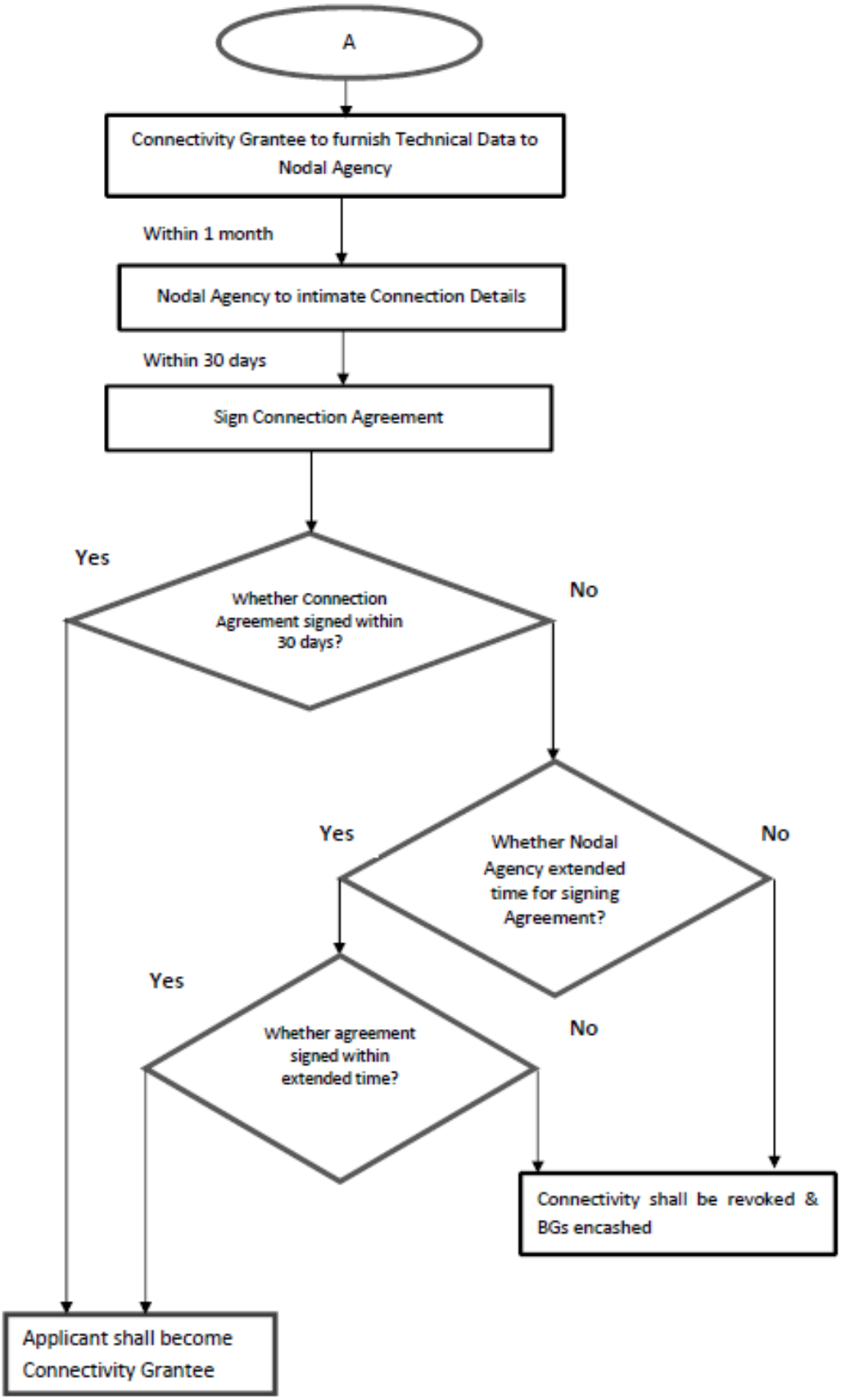
"5.2 Notwithstanding anything contained in Regulation 5.1, a generating station, with prior approval of CTU, shall be eligible to add, within the quantum of Connectivity granted to it, additional generation capacity, including ESS, and for this purpose, the generating station shall apply to CTU, along with non-refundable application fee of Rs.3 lakh along with applicable taxes;

Provided that for such additional generation capacity, the said generating station shall be responsible for compliance with the Grid Code and other regulations of the Central Commission."

5.7. Steps involved in grant of Connectivity

Following flowchart depicts the various steps involved for grant of Connectivity, starting from making application for connectivity till the signing of the Connectivity Agreement, that have been proposed in the 2021 Draft GNA Regulations.


Application of Connectivity
Within 30 days from the last day of the month of the Application
Nodal Agency to do the Interconnection Study
Check whether ATS required?
No
Yes
Within 30 days from the last day of the month of the Application
Within 60 days from the last day of the month of the Application
Intimate the in-principle grant of Connectivity to the Applicant
Intimate the in-principle grant of Connectivity specifying ATS including terminal bay(s), estimated cost, likely start date of connectivity, broad design features of dedicated line
Within 1 month
Within 1 month
Applicant to deposit Conn- BG1, Conn-BG2 & Conn-BG3 (as applicable)
Applicant to submit consent for execution of ATS and deposit Conn-BG-1
Within 1 month
Within 1 month
No
Yes
Whether Applicant furnished Conn BG-1, Conn BG2, Conn-BG3 (as applicable)?
No
Yes
Whether Consent and Conn BG-1 submitted?
Application shall be closed & Application fees shall be forfeited
Within 6 months
Nodal Agency to intimate Conn-BG 2 amount, time line of completion of ATS and firm date of start of Connectivity
Application shall be closed & Application Fees shall be forfeited
Within 15 days
Within 1 month
Applicant to deposit Conn-BG2
Within 1 month
Yes
Whether Applicant furnished Conn BG2
No
Within 15 days
Final grant of Connectivity intimation by Nodal Agency
Application shall be closed, Fees shall be forfeited and Conn-BG1 shall be encashed
A



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Regulations, 2021.

5.8. Interconnection study by CTU for grant of Connectivity

(a) After receipt of valid applications for Connectivity, CTU shall carry out interconnection study in terms of the provisions of the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 before grant of Connectivity. Based on inter-connection study, the applicant would be intimated the details of associated transmission system (ATS), bank guarantee to be furnished, estimated cost, timelines related to construction of ATS and other relevant details for Connectivity.

(b) Timeline of 6 months has been proposed as per Regulation 8.3(b) of the 2021 Draft GNA Regulations for the cases where ATS is required to be constructed keeping in view that the decision for construction of transmission system requires approvals at various levels, including the decision whether to construct transmission system under cost-plus mode or TBCB mode and carrying out bidding process in case the transmission system is to be constructed under TBCB mode.

(c) On closure of the application in terms of proposed Regulation 8.3(e) in case the entity does not furnish Conn-BG2 for ATS, CTU may decide whether to implement the transmission system keeping in view other applicants for the same transmission system.

5.9. Connectivity for Renewable Energy Generating Stations

(a) The 2009 Connectivity Regulations provides for grant of Connectivity to renewable energy projects in two stages viz. Stage-I Connectivity and Stage-II Connectivity. Grant of Stage-II Connectivity is based upon submission of (a) Letter of Award (LOA) or Power Purchase Agreement (PPA) or (b) land documents plus financial closure or release of funds.

(b) Stakeholders have pointed that renewable energy generating stations selling part capacity under PPA and part capacity as merchant capacity are required to apply twice to obtain Connectivity, once using LOA and other using land documents. Some stakeholders have submitted that such an arrangement leads to suboptimal planning of

dedicated transmission line by such generating stations.

(c) Keeping in view the suggestions of the stakeholders, in the 2021 Draft GNA Regulations it has been proposed to do away with Stage-I and Stage-II Connectivity and the requirement of pre-requisites such as LOA or PPA or land for grant of Connectivity.

(d) Since the dedicated transmission line is part of generating station, separate milestone of completion of dedicated transmission line has been removed in the 2021 Draft GNA Regulations.

5.10. Connectivity for Renewable Hybrid Generating Station

(a) Renewable Hybrid Generating Station has been defined at Regulation 2.1(ah) of the 2021 Draft GNA Regulations as follows:

"(ah) "Renewable Hybrid Generating Station" or "RHGS" means a generating station based on hybrid of two or more renewable source(s) of energy with or without Energy Storage System, connected at the same inter-connection point;"

(b) In case a project is established at different locations as per bidding requirements or otherwise, such project shall be eligible to obtain Connectivity under Regulation 4 of 2021 Draft GNA Regulations at each location as a separate entity.

5.11. Connectivity for entities other than generating station or Renewable power park

(a) In terms of provisions of Section 2(47) and 38(d) of the Electricity Act, 2003, a licensee (including a distribution licensee) is eligible to get open access to ISTS.

(b) As 'Bulk consumer' has been defined in the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 as follows, the same has not been defined in the 2021 Draft GNA Regulations:

"(8) "Bulk consumer" means a consumer who avails supply at voltage of 33 KV or above;"

(c) Under these Regulations, buying entities such as distribution licensees, Bulk consumers seeking to connect to ISTS directly have not been explicitly included under Regulation 4.1 of the 2021 Draft GNA Regulations, as an applicant of

Connectivity and have been made eligible to apply for GNA under Regulation 17.1 (iii) of the 2021 Draft GNA Regulations considering that Connectivity application is implicit in their GNA application. Since the minimum quantum for seeking Connectivity has been proposed as 50 MW, the same has also been proposed for Bulk consumer and distribution licensee seeking to connect directly to ISTS.

(d)As planning for strengthening of ISTS is to be done along with STU network in integrated way to transmit the power to DISCOMs, STU are made eligible to seek GNA on behalf of intra-state entities.

(e) Regulation 17.1 of the 2021 Draft GNA Regulations proposes as follows:

"17.1 The following entities shall be eligible as Applicants to apply for grant of GNA or for enhancement of the quantum of GNA:

(i) State Transmission Utility on behalf of distribution licensees connected to intra-State transmission system and other intra-State entities;
(ii) A buying entity connected to intra-State transmission system;
(iii) A distribution licensee or a Bulk consumer, seeking to connect to ISTS, directly, with a load of 50 MW and above;
...."

5.12. Dedicated transmission line

(a) Regulation 8(8) of the 2009 Connectivity Regulations provides for a restriction on the length of dedicated transmission line. However, based on the inputs of stakeholders that such restriction on the length of dedicated transmission line may sometimes hinder setting up of projects where sub-station is farther than 100 km. Therefore, the restriction on the length of the dedicated transmission line has been removed in the 2021 Draft GNA Regulations.

(b) For a Bulk consumer and Distribution Licensees seeking to connect to ISTS, the following has been proposed at Regulation 12.5 of the 2021 Draft GNA Regulations:

"12.5 In case of an entity covered under Regulation 17.1(iii), the line to connect such an entity to the ISTS and necessary augmentation for providing connection to the ISTS, shall be constructed and maintained by a licensee at the cost of such entity;"

5.13. Connectivity Bank Guarantee

(a) Connectivity Bank Guarantee (BG) has been proposed to be submitted as follows:

Connectivity Bank Guarantee	Amount	Purpose
Conn-BG1	Rs.50 lakh	Towards commitment for application
Conn-BG2	Rs.2 to Rs.12 crore/bay (Regulation 8.2(a))	Towards cost of terminal bay constructed or to be constructed
	Estimated cost of ATS plus terminal bay(s) (Regulation 8.3(b))	Towards cost of ATS and terminal bays to be constructed
Conn-BG3	Rs.2 lakh/MW	Towards allocation of surplus capacity in existing transmission system

(b) Regulation 8 of the 2021 Draft GNA Regulations proposes details as regards Connectivity BG.

(c) Treatment of Bank Guarantee has been proposed in Regulation 16.1 to Regulation 16.4 of the 2021 Draft GNA Regulations as follows:

*"**16. Treatment of Connectivity Bank Guarantee***

16.1 Conn-BG1 shall be returned within 30 days of declaration of commercial operation of full capacity by the Connectivity grantee.

16.2 Conn-BG2 and Conn-BG3 shall be returned in five equal parts over five years corresponding to the generation capacity which has been declared under commercial operation by the Connectivity grantee.

16.3 In case of non-payment of transmission charges under Regulation 13 of the Sharing Regulations for more than 3 months from the due date, such transmission charges shall be recovered by encashing Conn-BG1 (if subsisting), Conn-BG2 and Conn-BG3, as required. Connectivity shall be revoked from the date when Conn-BG2 is not sufficient to cover transmission charges under Regulation 13 of the Sharing Regulations.

16.4 The proceeds of encashed Conn-BG1, Conn-BG2 and Conn-BG3 in terms of Regulation 16.3, shall be adjusted in Monthly Transmission charges under the Sharing Regulations."

(d) Conn-BG1 has been proposed to be returned after declaration of commercial operation (COD) of the full capacity for which Connectivity was sought, while Conn-BG2 and Conn-BG3 have been proposed to be returned over a period of 5 years after

COD of corresponding capacity.

Illustration:

Suppose Connectivity is sought by a generating station for installed capacity of 1000 MW and Conn-BG2 for Rs.100 crore is furnished. If the generating station declares 200 MW under commercial operation in say October 2022, Conn-BG2 for Rs.4 crores shall be returned in the October month of the years 2023, 2024, 2025, 2026 and 2027. Conn-BG1 shall be returned only after declaration of COD of 1000 MW.

Suppose 600 MW out of 1000 MW generation capacity does not come up. In such case, the generating company may relinquish connectivity corresponding to 600 MW. With the relinquishment of 600 MW, its Connectivity shall be reduced to 400 MW and its Conn-BG1 shall be returned. However, treatment of Conn-BG2 corresponding to the relinquished Connectivity of 600 MW will be in terms of Regulation 24 of the 2021 Draft GNA Regulations.

(e) In case of relinquishment of Connectivity, the treatment of Connectivity Bank Guarantee has been proposed under Regulation 24 of the 2021 Draft GNA Regulations as under:

"24. Relinquishment of Connectivity

24.1 Connectivity grantee may relinquish, in full or in part, the Connectivity with a notice of 30 days to the Nodal Agency. The Nodal Agency shall issue revised grant of Connectivity to such Grantee, in case the Connectivity has been relinquished in part.

24.2 For entities covered under Regulation 7.1 and where Conn-BG2 and Conn-BG3, as applicable, has been furnished as per Regulation 8.2 of these regulations, the following shall apply:

(a) In case of relinquishment of full quantum of Connectivity, (i) subsisting Conn-BG1 shall be encashed, (ii) subsisting Conn-BG2 shall be encashed if the terminal bay(s) are already developed or construction of which has already been awarded for implementation and (iii) subsisting Conn-BG3 shall be encashed.

(b) In case of relinquishment of part quantum of Connectivity, (i) subsisting Conn-BG2 shall be encashed in proportion to the relinquished quantum of Connectivity if the terminal bay(s) are already developed or the construction of which has already been awarded for implementation and (ii) subsisting Conn-BG3 corresponding to the relinquished quantum of Connectivity shall be encashed. Conn-BG1 shall be returned in terms of Regulation 16.1 considering full capacity after excluding such relinquished quantum.

24.3 For entities covered under Regulation 7.2 and where Conn-BG2 has been furnished as per Regulation 8.3 of these regulations, the following shall apply:

(a) In case of relinquishment of full quantum of Connectivity, subsisting Conn-BG1 shall be encashed and subsisting Conn-BG2 shall be encashed corresponding to the ATS and terminal bay(s), construction of which has already been awarded for implementation.

(b) In case of relinquishment of part quantum of Connectivity, subsisting Conn-BG2 shall be encashed in proportion to the relinquished quantum of Connectivity corresponding to the ATS and terminal bay(s), construction of which has already been awarded for implementation. Conn-BG1 shall be returned in terms of Regulation 16.1 considering full capacity after excluding such relinquished quantum.

24.4 In case of revocation of Connectivity or relinquishment of Connectivity, corresponding GNA shall be reduced. In case a Connectivity grantee relinquishes the Connectivity in full, it shall be disconnected from the ISTS from the date of relinquishment of Connectivity.

24.5 The proceeds of encashed Conn-BG1, Conn-BG2 and Conn-BG3 in terms of Regulations 24.2 or 24.3 of these regulations, shall be used for reducing Monthly Transmission Charges under the Sharing Regulations."

(f) It has been proposed in Regulation 24.3 of the 2021 Draft GNA Regulations that in case Connectivity is relinquished, subsisting Conn-BG2 shall be encashed corresponding to the ATS and terminal bay(s), construction of which has already been awarded for implementation. The proceeds of encashed Conn-BG2 shall be used for reducing Monthly Transmission Charges under the Sharing Regulations as proposed in Regulation 24.5 of the Draft GNA Regulations. The treatment of transmission charges in respect of such ATS will be decided when corresponding amendment to the Sharing Regulations is taken up.

5.14. Connectivity Agreement

(a) The following has been proposed under Regulation 10.1 to Regulation 10.5 of the 2021 Draft GNA Regulations as regards the Connectivity Agreement:

"*10.1 An entity which has been intimated the final grant of Connectivity, shall furnish technical connection data, inter alia, generator data for fault studies, dynamic simulation data, details of data and voice communication, to the Nodal Agency as stipulated in the Detailed Procedure for Connectivity and GNA issued in accordance with Regulation 39.1.*

10.2 The Nodal Agency shall intimate the connection details, inter alia, details of protection equipment, system recording, SCADA and communication equipment, within a period of one month from the date of receipt of technical connection data under Regulation 10.1.

10.3 Within 30 days of the intimation of connection details by the Nodal Agency under Regulation 10.2, Connectivity Agreement shall be signed 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.

10.4 The technical connection data indicated at Regulation 10.1 and connection details indicated at Regulation 10.2 shall form part of the Connectivity Agreement.

10.5 Where Connectivity is granted at a proposed ISTS sub-station, the Nodal Agency, shall confirm the final coordinates within 2 months of signing of the Connectivity Agreement and such coordinates shall not be outside the radius of 5 km of the tentative coordinates already intimated."

(b) There have been instances where due to delay in providing coordinates of the sub-station by CTU, difficulty has been faced by the connectivity grantee in finalising the dedicated transmission line. Also, there have been instances where Connectivity has been granted in ISTS sub-station for which neither land has been acquired nor identified, resulting in uncertainty about the exact coordinates of the sub-station. Therefore, in order to address the issue a provision of 'tentative coordinates' has been proposed in the Connectivity Agreement in terms of Regulation 10.5 read with Regulation 9.1(d) of the 2021 Draft GNA Regulations.

(c) Connection Agreement as provided under Regulation 5 of the 2009 Connectivity Regulations wherein concerned transmission licensee enters into agreement with CTU, has been done away with in the 2021 Draft GNA Regulations and shall be considered to include in Grid Code while amending the same.

5.15. Transfer of Connectivity

(a) Under Regulation 8A of the 2009 Connectivity Regulations, transfer/ assignment/ pledging of Connectivity is allowed only in case of (i) Renewable Energy Implementing Agency and (ii) between parent company and its 100% owned subsidiary(ies) in case of REGS.

(b) The Commission has received several representations to relax the provisions related to transfer of Connectivity. Further, MOP vide letter dated 12.2.2021, under Section 107 of the Electricity Act, 2003, issued directions to consider transfer of Connectivity and LTA under the 2009 Connectivity Regulations.

(c) Considering the various representations, the Connectivity grantee in case of REGS, under the 2021 Draft GNA regulations, is allowed to split its Connectivity in parts having minimum capacity of 50 MW of each part and transfer the same after their COD.

(d) Transfer of Connectivity is proposed in Regulation 15.1, Regulation 15.2 and Regulation 15.3 of the 2021 Draft GNA Regulations as under:

"15.1 A Connectivity grantee shall not transfer, assign or pledge its Connectivity and the associated rights and obligations, either in full or in parts, to any person except as provided under Regulations 15.2 and 15.3 of these regulations.

Provided that Connectivity granted to a parent company may be utilised by its subsidiary and Connectivity granted to a subsidiary may be utilised by its parent company.

15.2 Where the Connectivity grantee is an REGS, it may split its Connectivity in parts, after COD of such part, subject to the minimum capacity in accordance with Regulation 4.1 of these regulations, and submit the installed capacity of each part to the Nodal Agency. In such an event, the Connectivity shall be deemed to have been split in proportion to installed capacity of each such part:

Provided that all liabilities and obligations in accordance with these regulations shall continue to remain with the Connectivity grantee for each part.

15.3 Any person which acquires 51% or more shareholding of the company or its subsidiary or affiliate company owning REGS or part thereof in terms of Regulation 15.2, may after COD of such part, apply to the Nodal Agency for transfer of Connectivity. The Nodal Agency shall issue revised grant of Connectivity on submission of applicable Conn-BG2 and Conn-BG3 by such person. The original grantee may substitute its Conn-BG2 and Conn-BG3 with revised Conn-BG2 and Conn-BG3, to be intimated by CTU. On issue of revised grant of Connectivity, such person shall enter into a fresh Connectivity Agreement and be responsible for compliance with all applicable regulations.

Provided that all liabilities and obligations in accordance with these regulations, for the Connectivity not transferred, shall continue to remain with the original Connectivity grantee."

6. General Network Access

6.1 Under the 2009 Connectivity Regulations, Long Term Access (LTA) or Medium term open access (MTOA) granted to an entity (a selling entity or buying entity or a trading licensee on behalf of such selling entity or buying entity) means a right granted to such an entity for transfer of electricity from a specified injection point to a specified drawal point on ISTS. While granting LTA, both injection point and drawal point in ISTS are identified. Under the proposed General Network Access framework as per the 2021 Draft GNA Regulations, all grid connected entities i.e. a selling entity or a buying entity shall have GNA. Such GNA is not from identified injection point to identified drawal point, rather it is an open access which shall provide flexibility in terms of injection point for a buying entity under different types of contracts. Similarly selling entity has flexibility to sell any buying entity under different types of contracts. However, the said flexibilities shall be subject to any transmission constraints or congestion for whatever reason, including grid security.

6.2 A State as an entity shall have GNA within which it shall be able to schedule power under any contract.

6.3 Payment of transmission charges under GNA

(a) Transmission charges towards ISTS are proposed to be paid by the entities drawing power from ISTS. The entities injecting power shall not be charged for the power injected till such injection remains within the GNA of such entities. Under the prevailing arrangement, the buying entities pay the transmission charges either explicitly or implicitly by way of transmission charge being embedded in the sale price of the seller. Thus, the transmission charges are ultimately paid by the buying entities, which is being explicitly recognised under the proposed arrangement.

(b) The proposed arrangement will enable the sellers to compete purely on the basis of energy charges and efficiency, which will ultimately benefit the buyers. At the same time, the buyers have the scheduling flexibility based on merit order within their GNA under the proposed mechanism. This will eventually lead to optimisation of the

system cost. Further, the proposed system will mainstream the new technology-based projects, as they would need to focus on their technology and cost efficiency.

(c) The payment of transmission charges has thus been proposed with due regard to the emerging needs of scheduling flexibility for the buyers, encouraging generators to compete on the basis of their energy charges and enhancing cost efficiency of the new technology-based projects. The international practice in this context has also been studied at length. The international practices of sharing of network operator charges is summarised in Annexure-I.

(d) Augmentation of the transmission system may be required when a new generator seeks Connectivity. In the event a generator is not able to achieve COD of its generating station, full or a part capacity of the augmented transmission system may become redundant. To ensure that in such a situation, the consumers are not burdened with additional liabilities of transmission charges and due diligence is exercised by the generator while seeking any augmentation of the transmission system, it has been proposed that in case Associated Transmission System (ATS) is identified with a particular generator, it shall be required to deposit bank guarantee equivalent to the estimated cost of the ATS, which shall be liable to be forfeited as per the provisions of the 2021 Draft GNA Regulations in case the generator is not able to achieve COD of its generating station, either in full or in part.

(e) As the transmission system charges are ultimately borne by buying entities directly or as part embedded in energy costs, it has been proposed under the GNA that the transmission charges shall be payable by the buying entities. Sufficient safeguards have been provided in the 2021 Draft GNA Regulations so that consumers do not get burdened with additional liabilities of transmission charges of the ATS identified with a particular generator which fails to achieve COD of its generating station, either in full or in part.

(f) The transmission charges shall be shared by the buying entities broadly in proportion to their GNA in terms of the Sharing Regulations.

6.4 Scheduling Flexibility under GNA

(a) For LTA and MTOA under the 2009 Connectivity Regulations, PPA is required between the selling entity and the buying entity to schedule power.

(b) A buying entity may enter into a short term contract as per its demand forecast and assessment of cost of power and like to schedule the power under such short term contract. Since buying entities shall be paying the transmission charges for GNA, it has been proposed to allow the scheduling request of the buying entity, within its GNA, from any selling entity.

6.5 Concept of "within the region" and 'outside the region'

(a) Under the Connectivity Regulations, LTA and MTOA along with the identified PPA is used to schedule power from injection point to drawal point. While allocating the corridors on day-ahead basis, scheduling of power for contracts under LTA is carried out first, then for contracts under MTOA and thereafter STOA transactions already scheduled are allocated the corridors. STOA can be granted 3(three) months before the transaction date. NLDC and RLDC keep the corridor booked for LTA and MTOA based on identified PPA and release the balance corridor for STOA.

(b) Under the proposed GNA framework, a GNA grantee has the flexibility, within its GNA, to request schedule from any entity which will be scheduled subject to availability of transmission system.

(c) However, due to the inherent limitations in the existing transmission system availability especially in the inter-regional system, it has been proposed to segregate GNA into 'within the region' and 'outside the region'.

(d) The following illustration may be seen:

Suppose State 'A' located in NR has GNA for 'X' MW. It can schedule power from any injecting entity within NR as presently there is more or less adequate capacity within the region. Now, suppose State 'A' places scheduling request for the entire 'X' MW from WR. If other States in NR having GNA also place scheduling request from

WR, there may be a situation when the demand for WR-NR corridor could be more than the available capacity of the transmission system between NR and WR.

(e) To address situations as given in the above illustration, it has been proposed that there shall be indicative bifurcation of GNA as 'within the region' and 'outside the region'. Though a GNA grantee shall be eligible to schedule power from any region within its GNA, such indicative GNA shall be applied where demand for a corridor is higher than availability. Additional GNA sought by the entities, if any, shall also have indicative bifurcation of 'within the region' and 'outside the region'.

(f) The requirement of such indicative bifurcation of GNA as 'within the region' and 'outside the region' shall be reviewed by the Commission periodically.

(g) Currently NLDC allocates the corridor under LTA/MTOA based on contracts in a particular region. A sample is attached below:

National Load Despatch Centre
Total Transfer Capability for January 2022

Issue Date: 30th December, 2021 Issue Time: 1700 hrs Revision No. 1

Corridor	Date	Time Period (hrs)	Total Transfer Capability (TTC)	Reliability Margin	Available Transfer Capability (ATC)	Long Term Access (LTA)/ Medium Term Open Access (MTOA) #	Margin Available for Short Term Open Access (STOA)	Changes in TTC w.r.t. Last Revision
NR-WR*	1st January 2022 to 31st January 2022	00-06	2500	500	2000	628	1372	
		06-18				1856	144	
		18-24				628	1372	
WR-NR*	1st January 2022 to 31st January 2022	00-06	19500 18550**	1000	18500 17550**	11433 10483**	7067	
		06-18	17800 16850**	1000	16800 15850**	11822 10872*	4978	
		18-21	17800 16850**	1000	16800 15850**	11433 10483**	5367	
		21-24	19500 18550**	1000	18500 17550**	11433 10483**	7067	
NR-ER*	1st January 2022 to 31st January 2022	00-06	2000	200	1800	93	1707	
		06-18	2000		1800	1308	492	
		18-24	2000		1800	93	1707	
ER-NR*	1st January 2022 to 31st January 2022	00-06	5900	400	5500	4356	1144	
		06-21	7600	400	7200	4356	2844	
		21-24	5900	400	5500	4356	1144	
W3-ER	1st January 2022 to 31st January 2022	00-24						No limit is b
ER-W3	1st January 2022 to 31st January 2022	00-24						No limit is b
WR-SR^	1st January 2022	00-05	10000	650	9350	4118	5232	-350
		05-22	10000		9350		5232	-350
		22-24	10000		9350		5232	-350
WR-SR^	2nd January 2022 to 31st January 2022	00-05	10350	650	9700	4118	5582	
		05-22	10350		9700		5582	
		22-24	10350		9700		5582	
SR-WR *	1st January 2022 to 31st January 2022	00-24	6600	400	6200	934	5266	

(h) Accordingly, to start with, for each State and other entities, bifurcation of GNA between 'within the region' and 'outside the region' shall be on the basis of contracts under LTA and MTOA.

7. Applicants for GNA

(a) Proposed Regulation 17.1(i) of the 2021 Draft GNA Regulations provides that STUs shall apply for GNA on behalf of intra-State entities including distribution licensees. However, STUs shall not have any commercial liability of GNA. The intra-State entities, on whose behalf STU applies for GNA, shall be responsible for payment of transmission charges under the Sharing Regulations. For this purpose, STUs shall indicate in its application for GNA, the segregated quantum for each intra-State entity including distribution licensee. (Regulation 17.1(i))

(b) Proposed Regulation 17.1(ii) of the 2021 Draft GNA Regulations provides that a buying intra-State entity desirous of availing GNA to ISTS may also apply directly to the Nodal Agency.

(c) Proposed Regulation 17.1(iii) of the 2021 Draft GNA Regulations provides that a distribution licensee or a Bulk consumer with 50 MW or above capacity shall be eligible for applying for GNA directly.

(d) Proposed Regulation 17.2 of the 2021 Draft GNA Regulations provides that those entities (primarily, generating stations) for whom Connectivity has become effective shall be eligible for applying for GNA to the ISTS equal to the quantum of Connectivity granted under the 2009 Connectivity Regulations. In case such an entity does not have GNA equal to the Connectivity granted under the 2009 Connectivity Regulations, it shall not be able to schedule its power beyond GNA granted to it.

(e) Under proposed 2021 Draft GNA Regulations, Trading Licensee cannot apply for GNA except in case of cross border trade of electricity in terms of the Cross Border Regulations, for injection into Indian grid or drawal from Indian grid, as per proposed Regulation 17.1 (iv).

(f) As per provisions of the 2009 Connectivity Regulations, HVDC transmission systems have Long term Access to draw power for running its auxiliaries. Keeping this in view, a transmission licensee connected to ISTS, who wishes to draw power from ISTS for the purpose of running its auxiliaries, has been made eligible to apply for GNA as per proposed Regulation 17.1(v) of the 2021 Draft GNA Regulations.

8. Deemed grant of GNA

8.1 GNA of States

(a) All the State DISCOMs connected to ISTS will be considered as deemed grantee of GNA, and the GNA of a State on the date the 2021 Draft GNA Regulations come into force, shall be based on average of actual ISTS drawal during the last three years as per the proposed formula since the drawal represents the usage of ISTS by the State. The usage of ISTS by a State varies based on daily load profile and also varies from season to season. Hence, ISTS drawal has been captured for daily maximum ISTS drawal over the year and yearly maximum ISTS drawal. Further, such data have been captured for the last 3 years so that any spikes or outliers are taken care of. The following has been proposed at Regulation 18.1 of the 2021 Draft GNA Regulations:

"GNA for a (i) State including intra-State entity(ies) and (ii) other drawee entities, shall be the average of 'A' for the financial years 2018-19, 2019-20 and 2020-21:
where,
'A' = {0.5 X maximum ISTS drawal in a time block during the year} + {0.5 X [average of (maximum ISTS drawal in a time block in a day) during the year]}"

(b) STUs within 3 months of coming into force of these regulations, on behalf of intra-state entities, may apply for additional GNA over and above the GNA deemed granted under proposed Regulation 19.1 of the 2021 Draft GNA Regulations.

(c) Transmission charges are paid by the intra-State entities in the State and, hence, there is a need to segregate GNA quantum for all intra-State entities. Since SLDC of the State has information related to drawal of each intra-State entity, it is proposed that SLDC shall carry out such segregation of GNA quantum of the State into various

intra-State entities and intimate the same to STU, CTU and NLDC. Regulation 18.1(e) of the 2021 Draft GNA Regulations proposes as under:

"(e) GNA deemed to have been granted to STU under clause(d) of this Regulation, shall be segregated for each intra-State entity, including distribution licensee, by the respective SLDC, and intimated to STU, Nodal Agency and NLDC within 1 month of publication of details by the Nodal Agency under clause (d) of this Regulation.

Provided that in case an SLDC fails to provide such segregation, the pro rata GNA shall be allocated to each intra-State entity in the ratio of their Long Term Access and Medium Term Open Access, as included in the first bill raised in the previous month under the Sharing Regulations."

8.2 GNA for Damodar Valley Corporation (DVC)

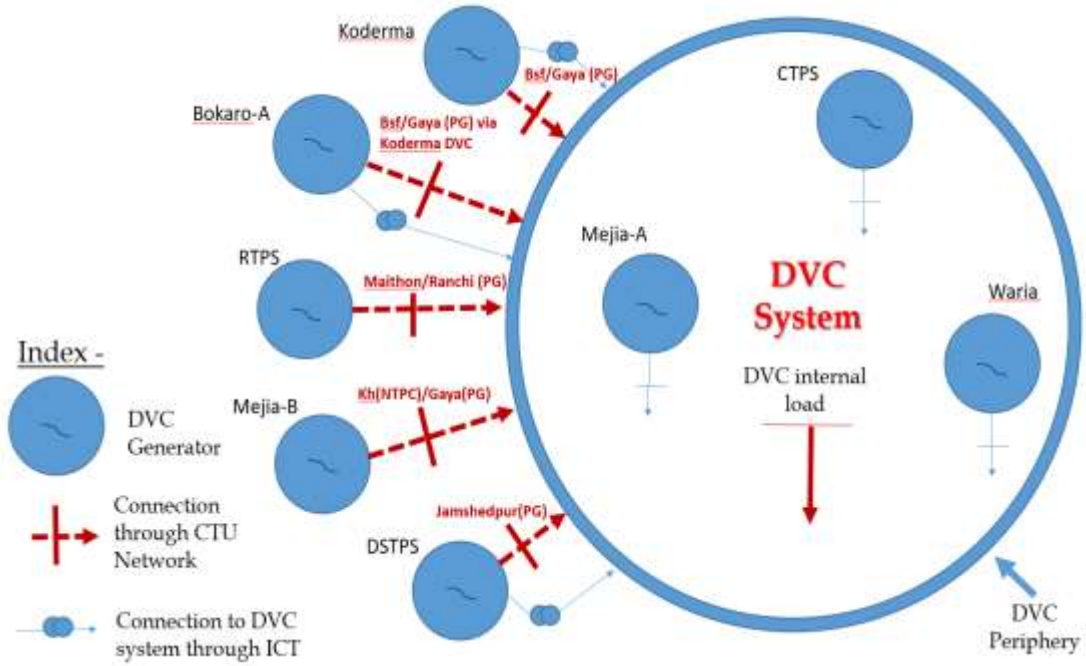
(a) DVC is a deemed licensee as per 4th proviso of Section 14 of the Electricity Act, 2003. DVC is separate control area and is treated akin to a State. It has allocation of power from a few generating stations and it also owns a few generating stations.

(b) As per DSM (Deviation Settlement Mechanism) accounts issued by ERPC (Eastern Regional Power Committee), it is observed that DSM is calculated separately for DVC as a State.

(c) It is observed from RTA (regional transmission accounts) issued for the billing month of December 2021 (billing period of October 2021) in terms of the Sharing Regulations that LTA/ demand for DVC is taken as 622.19 MW, out of which 339.69 MW is for DVC, 200 MW is for Tata Steel Ltd. and 82.5 MW is for Railways_DVC (embedded within DVC control area).

(d) It is observed from RTDA (regional transmission deviation accounts) for the billing months of May 2021 to August 2021 (billing periods of March 2021 to June 2021) that transmission deviation charges for DVC area are also calculated separately as DVC_State.

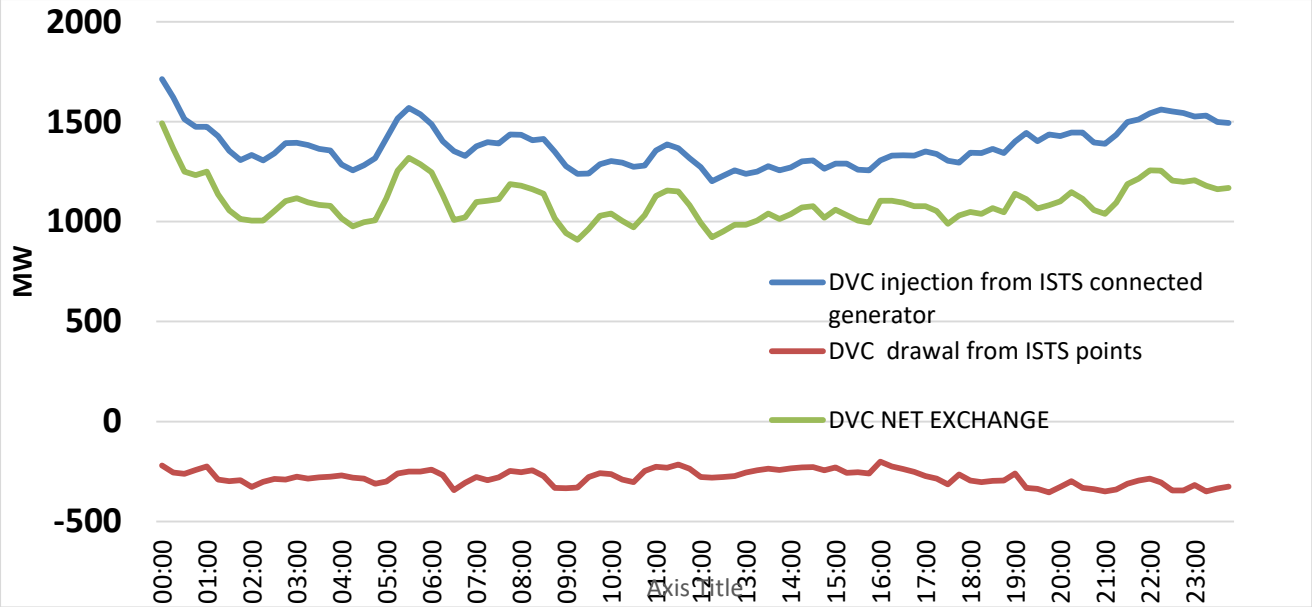
(e) ISTS drawal data for DVC control area was obtained from NLDC (National Load Despatch Centre). It was observed that DVC has a negative drawal schedule for every time block. The schematic diagram is as follows:



(f) It is observed that DVC owns a few generating stations out of which Mejia Thermal Power Station #7 & #8, Durgapur Steel Thermal Power Station #1 & #2, Koderma Thermal Power Station #1 & #2, Bokaro Thermal Power Station-A #1, Raghunathpur Thermal Power Station #1 & #2 are connected to ISTS.

(g) However, while calculating actual ISTS drawl for DVC for the purpose of DSM accounts, the actual injection for generating stations mentioned at paragraph (f) above is added to ISTS drawal calculated at DVC periphery marked in 'blue circle' in schematic diagram above.

(h) Actual exchange of power for one typical day is as follows:



(i) It is observed that although DVC as a control area have been considering injection for the above said identified generating stations as its embedded generating stations, but the transmission lines connecting such stations to DVC owned system is not within DVC control area. This needs to be considered while considering actual ISTS drawal for DVC.

(j) Accordingly, it is proposed that DVC as a State control area shall be granted deemed GNA as per the formula proposed under Regulation 18.1(a) of the 2021 Draft GNA Regulations with a condition that ISTS drawl shall be ~~has been~~ considered after excluding injection from those generating stations that are connected to ISTS (Mejia Thermal Power Station #7 & #8, Durgapur Steel Thermal Power Station #1 & #2, Koderma Thermal Power Station #1 & #2, Bokaro Thermal Power Station-A #1, Raghunathpur Thermal Power Station #1 & #2).

(k) Generating stations of DVC that are connected to ISTS (Mejia Thermal Power Station #7 & #8, Durgapur Steel Thermal Power Station #1 & #2, Koderma Thermal Power Station #1 & #2, Bokaro Thermal Power Station-A #1, Raghunathpur Thermal Power Station #1 & #2) shall be treated like any other ISGS (inter-State generating station) which shall need to have a GNA at its injection point for its power to get

scheduled. The Connectivity or LTA already obtained by such stations shall be treated in terms of Regulation 37 of the 2021 draft GNA Regulations.

8.3 GNA for Haryana

(a) It is observed that ISTS drawal data for Haryana includes drawl of power from M/s Adani Power (Mundra) Limited. For such drawal of power, M/s Adani Power (Mundra) Limited is liable to pay transmission charges corresponding to 1495 MW for Mundra–Mohindergarh 2500 MW HVDC transmission system in terms of Regulation 5(3)(c) of the Sharing Regulations. While calculating GNA quantum based on ISTS drawal data of FY 2018-19 to FY 2020-21, this factor has been considered.

(b) The deemed GNA of Haryana, as per formula proposed in Regulation 18.1(a) of the 2021 draft GNA Regulations is derived as 6913 MW. Considering that M/s Adani Power (Mundra) Limited is responsible for payment of charges corresponding to 1495 MW, the same has been proposed to be deducted and accordingly deemed GNA of Haryana shall be considered as 5418 MW (6913 MW minus 1495 MW).

(c) M/s Adani Power (Mundra) Limited shall hold GNA for 1495 MW at Haryana periphery and Haryana would be able to schedule power from M/s Adani Power (Mundra) Limited under the said GNA of 1495 MW held by M/s Adani Power (Mundra) Limited. However, flexibility of scheduling from other injecting entities shall be available to Haryana only to the extent of GNA held by Haryana i.e. 5418 MW.

8.4 GNA of other buying entities

8.4.1 GNA for HVDCs

(a) DSM charges in terms of the DSM Regulations are calculated for HVDCs as drawing entities. As per Regional Transmission Accounts (RTA) issued by the respective RPCs in terms of the Sharing Regulations for the billing month of December 2021 (billing period of October 2021), the following LTA/MTOA in respect of HVDCs is considered.

Name of DIC	LTA/MTOA considered (MW)
Northern Region	
PG-Agra	2.36
PG-Ballia	0.95
PG-Bhiwadi	0.95
PG-Dadri	0.76
PG-Kurukshetra	3.3
PG-Rihand	0.74
TOTAL	**9.06**
Eastern Region	
HVDC Alipurduar	1.41
POWERGRID PUSAULI	0.91
TOTAL	**2.32**
Western Region	
HVDC VINDHYACHAL	0.69
HVDC BHADRAVATI	0.91
HVDC CHAMPA	3.19
HVDC Raigarh	1.88
TOTAL	**6.67**
Southern Region	
PG-HVDC Gazuwaka	0.98
PG-HVDC Talcher	1.5
HVDC Kolar	1.5
PG-HVDC Pugalur	2.92
PG-HVDC Thrissur	1.11
TOTAL	**8.01**
North Eastern Region	
PG-HVDC BNC	1.37

(b) From RTDA issued by RPCs, it is observed that in Southern region, except for PG-HVDC Pugalur and PG-HVDC Thrissur, combined transmission charges under RTA and RTDA are calculated for HVDCs for Southern region (i.e. PG-HVDC Gazuwaka, PG-HVDC Talcher and HVDC Kolar). However, in other regions, transmission charges are billed separately for each HVDC. Keeping in view the process followed in Southern region, combined GNA for all HVDCs in each region have been proposed.

(c) Above mentioned entities are LTA customers as per provisions of the 2009 Connectivity Regulations. It is proposed in Regulation 18.1 of the 2021 Draft GNA Regulations that for these entities, GNA shall be determined in same way as it is determined for each State (Average of 3 years of maximum drawal).

(d) GNA for HVDC in Southern Region was inadvertently missed out in the table at Annexure-I in the 2021 Draft GNA Regulations and the same is provided below:

State	Yearly Average of Daily Max ISTS drawal (X_1) (MW)	Yearly Max ISTS drawal (Y_1) (MW)	A_1= 0.5*X_1 + 0.5*Y_1 (MW)	Yearly Average of Daily Max ISTS drawal (X_2) (MW)	Yearly Max ISTS drawal (Y_2) (MW)	A_2= 0.5*X_2 + 0.5*Y_2 (MW)	Yearly Average of Daily Max ISTS drawal (X_3) (MW)	Yearly Max ISTS drawal (Y_3) (MW)	A_3= 0.5*X_3 + 0.5*Y_3 (GNA) (MW)	GNA (MW) = Avg of A_1, A_2 & A_3
	2018-19			2019-20			2020-21			
HVDC_SR excluding*	2.63	3.93	3.28	2.67	3.36	3.01	2.49	3.16	2.82	3.04
*PG-HVDC Pugalur & PG-HVDC Thrissur	-	-	-	-	-	-	2.21	4.01	3.11	3.11
HVDC_SR										6.15

** PG-HVDC Pugalur & PG-HVDC Thrissur have come in service only in 2020-21. Therefore, ISTS drawal data of these two entities is not averaged and taken only for FY 2020-21 and while ISTS drawal data for other HVDCs is averaged for 2018-19 to 2020-21.*

8.4.2 GNA for BARC

BARC is also connected to ISTS and is a regional entity. From RTA and RTDA issued by WRPC for the billing month of December 2021 (billing period of October 2021), it is observed that LTA of 9.10 MW is considered for BARC (Bhabha Atomic Research Centre). Therefore, GNA for BARC has been calculated accordingly in the proposed Regulation 18.1(a) of the 2021 Draft GNA Regulations.

8.4.3 GNA for Railways

Ministry of Power vide order dated 7.6.2017 allocated power from RGPPL (Ratnagiri Gas and Power Private Limited) to Railways in Uttar Pradesh and stated that the allocated power shall be drawn at ISTS-connected points, namely, Dadri and Auraiya.

It is observed from DSM accounts issued by NRPC that DSM is calculated for Railways as a regional entity. Further, it is observed from RTA for the billing month of December 2021 (billing period of October 2021) that LTA considered for Railways in UP is 188.75 MW (138.75 MW allocated from BRBCL Nabinagar TPS and 50 MW allocated from RGPPL). ISTS drawal data for the interface points where Railways is directly connected to ISTS in UP was obtained from NRPC. Based on this data, GNA quantum for Railways has been computed as per formula proposed in Regulation 18.1(a) of the 2021 Draft GNA Regulations.

8.4.4 GNA for Essar Steel

Essar Steel is a Bulk Consumer and a regional entity having Connectivity to ISTS in terms of the 2009 Connectivity Regulations. DSM account for Essar Steel is prepared separately as AMNSIL (ESIL) as a buying entity of Western region. Further, it is observed from RTDA for the billing months of December 2021 (billing period of October 2021) that transmission deviation charges are also levied on AMNSIL (ESIL) in terms of the Sharing Regulations. As per the proposed Regulation 17.1(iii) of the 2021 Draft GNA Regulations, a bulk consumer directly connected to ISTS shall be eligible for grant of GNA. Since Essar Steel is having ISTS drawal and is a Bulk consumer having Connectivity to ISTS, it is proposed that Essar Steel shall be granted deemed GNA as per formula proposed in Regulation 18.1(a) of the 2021 Draft GNA Regulations.

8.5 GNA of injecting entities

(a) Regulation 4.1 of the 2021 Draft GNA Regulations provides eligibility for various entities which are generating stations or other injecting entities. Any such entity which has obtained LTA including LTA to target region under the 2009 Connectivity Regulations which is effective as on date of notification of these Regulations shall have GNA equal to LTA.

(b) Under the 2009 Connectivity Regulations, if a buying entity has obtained LTA from injection point to drawl point, in such case also, the injecting entity shall have GNA equal to LTA obtained by its identified buyer.

(c) There are some Central Generating Stations which were not required to obtain Connectivity or Long term Access, as they came into existence prior to the notification of the 2009 Connectivity Regulations. However, they are connected to the grid and are supplying power to Long Term Customers by way of allocation of power by MOP. Post the notification of the 2009 Connectivity Regulations, the Central Generating Stations started applying for Long term Access on behalf of its buyers i.e. distribution licensees. Such Central generating stations which did not obtain Long term Access due to the procedure followed prior to notification of the 2009 Connectivity Regulations, but are connected to the grid shall be deemed to have been granted GNA equal to the installed capacity of such generating station, since no specific quantum of LTA has been obtained. And such Central Generating Station which obtained LTA under the 2009 Connectivity Regulations, its LTA shall be considered as deemed GNA.

8.6 GNA of Trading Licensee and for cross-border trade of electricity

(a) Trading licensee is eligible to apply for Long term Access under the 2009 Connectivity Regulations. However under the 2021 Draft GNA Regulations, it is proposed that trading licensee shall not be eligible to obtain GNA except in case of cross border trade of electricity. Existing LTA obtained by a trading licensee (other than those for cross border trade of electricity in terms of the Cross Border Regulations) shall be part of GNA deemed to have been granted to the concerned grid connected entity.

Illustration:

Suppose 500 MW LTA is granted to 'ABC' trading licensee that procures power from a generating station 'G' of installed capacity and Connectivity of 1000 MW. Suppose 'ABC' entered into a power purchase agreement for 150 MW with State 'A' and for 250 MW with State 'B' while for remaining 100 MW, there are no identified buyers. As GNA of States is derived from the maximum ISTS drawal of past three (3) financial years, GNA of State 'A' and State 'B' will subsume 400 MW of LTA taken by 'ABC'. From injection side, LTA of 500 MW taken by 'ABC' shall be converted as deemed GNA for 'G'. Out of 500 MW of LTA, 400 MW is with identified buyer

and hence no additional Bank Guarantee is payable under proposed Regulations. For 100 MW, where there is no identified buyer and only 'G' is the concerned grid-connected entity with LTA to target region, 'G' shall be granted GNA under Regulation 37.6 of the 2021 draft GNA Regulations on submission of requisite bank guarantees.

8.7 GNA for export to Bangladesh

(a) The following has been proposed in the Annexure-I to the 2021 Draft GNA Regulations:

*"**Note:** GNA for export to Bangladesh shall be equal to 782 MW, same as the Long Term Access granted."*

(b) LTA granted to a trading licensee involved in cross border trade of electricity in terms of the Cross Border Regulations shall become deemed GNA granted to it and the liability of payment of transmission charges shall remain with the trading licensee. For example, NVVNL (NTPC Vidyut Vyapar Nigam Limited) has LTA for transfer of power from injection point in West Bengal (interconnection points of DVC with ISTS) to drawal point at Indian Border (400 kV Baharampur Switching Station in West Bengal) for onward transmission to Bangladesh Power Development Board (BPDB). For such LTA, NVVNL shall be liable to pay transmission charges.

(c) 250 MW of power from a few Central Generating Stations has been allocated by MOP to BPDB. Allocation being considered as LTA, for which currently BPDB is making payment of transmission charges directly. Under GNA framework, CTU shall continue to bill BPDB under the Sharing Regulations for such 250 MW.

(d) 232 MW of LTA has been obtained by Sembcorp till BPDB drawl point in Indian grid, for which Sembcorp is making payment of transmission charges. LTA of 232 MW shall be converted into GNA of 232 MW at Indian point for the purpose of drawl from Indian grid for which Sembcorp shall continue to make payment of transmission charges under the Sharing Regulations. Sembcorp shall also be granted deemed GNA at its injection point corresponding to LTA of 232 MW, for which no transmission charges is payable.

(e) Regulation 18.1(i) of the 2021 Draft GNA Regulations provides as follows:

"(i) Long term Access granted to a Trading licensee engaged in cross border trade of electricity in terms of the Cross Border Regulations shall be the GNA deemed to have been granted to such trading license under these regulations for the period of such Long term Access."

(f) There are LTAs with eastern region constituents for obtaining power from Tala, Chukha and Kurichu generating stations in Bhutan. GNA for buying entities is already being considered based on ISTS drawl which shall subsume such LTAs. Further, at Indian border, for the purpose of injection into Indian grid, trading licensee shall have such GNA for which no charges are payable.

(g) Other cases of cross border transactions may also be dealt with accordingly.

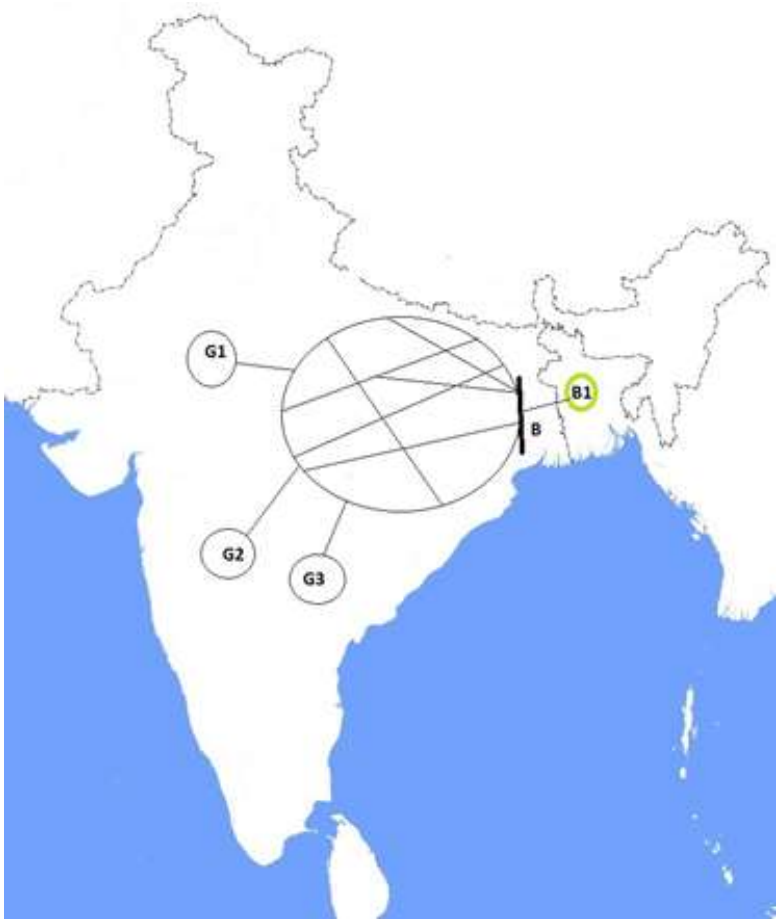
9. Additional GNA by trading licensee

9.1 Trading licensees for the purpose of cross border transactions under the Cross Border Regulations may apply for GNA under following scenarios:

(a) For injection into Indian Grid, GNA shall be obtained at injection point in Indian grid i.e. at point A in the picture below (for illustration purpose). From the injection point, it may supply power to an entity situated anywhere in India as per contract and necessary approvals.

where
-G1 is generating station located in other Country
-A is the border substation at which GNA is sought for purpose of injection into Indian grid
-D-1 is Distribution licensee located within India.

(b) For drawl from Indian Grid, GNA shall be obtained at drawal point in Indian grid i.e. at point B in the picture below (for illustration purpose). From the drawal point, it may procure power with an entity situated anywhere in India as per contract and necessary approvals.



where
-G1,G2,G3 are generating stations located in India
-B is the border substation at which GNA is sought for purpose of drawal from Indian grid
-B-1 is buying entity located in other Country.

(c) Where generating station is located in one country (other than India) and buying entity is located in another country (other than India), and power is to be transacted through the Indian grid, the trading licensee shall have to obtain GNA both for the purpose of injection into the Indian grid and that for drawl from the Indian grid i.e. at point A and at point B in the picture below.

where
-G1 is a generating station located in other Country
-A is the border substation at which GNA is sought for purpose of injection into Indian grid
-B is the border substation at which GNA is sought for purpose of drawal from Indian grid
-B-1 is buying entity located in other Country.

10. Application and Grant of additional GNA for STUs on behalf of intra-State entities

10.1 STUs may seek additional GNA on behalf of intra-State entities under Regulation 19.1 and Regulation 19.2 of the 2021 Draft GNA Regulations which are reproduced below:

"

19.1 Within 3 months of coming into force of these regulations, STU may, on behalf of intra-State entities including distribution licensees, apply for additional GNA over and above the GNA deemed to have been granted under clauses (a) to (e) of Regulation 18.1 of these regulations, with entity-wise segregation indicating GNA within the region and from outside the region.

19.2 STU, on behalf of intra-State entities including distribution licensees, may apply, once in a financial year (starting from the financial year following the financial year in which these regulations have become effective) by the month of September each year, for additional GNA for the next 3 (three) financial years, with

entity-wise segregation indicating GNA within the region and from outside the region, as stipulated in the Detailed Procedure for Connectivity and GNA issued in accordance with Regulation 39.1:

Provided that such additional GNA quantum to be added in each of the next three financial years shall be applicable from a specified date of the respective financial year."

10.2 STUs shall be granted additional GNA under Regulation 20.1of the 2021 Draft GNA Regulations which are as follows:

"***Grant of additional GNA to STU***

(a) The Nodal Agency shall process all applications received under Regulation 19.1 of these regulations together, within two months from last day of receipt of applications and grant additional GNA to STU based on available transmission capacity, or on pro-rata basis, if necessary. GNA once granted shall remain valid until relinquished.

(b) The Nodal Agency shall grant additional GNA to STU based on applications received under Regulation 19.2 of these regulations by 31st March of the same financial year, keeping in view the available transmission capacity or timeline of augmentation, indicating the date from which such additional GNA shall be effective. GNA once granted shall remain valid until relinquished.

(c) The total GNA of STU shall be the sum of GNA deemed to have been granted under Regulation 18.1 and additional GNA granted under this Regulation.
….."

10.3 *Illustration* (for application and grant of additional GNA for STU):

a) Suppose the deemed GNA computed as per proposed Regulation 18.1(a) of the 2021 Draft GNA Regulations for a STU 'A' is 4000 MW and the date of coming in force of these regulations is 31.3.2022. 'A' may apply for additional GNA in terms of Regulation 19.1 of the 2021 Draft GNA Regulations within next 3 months i.e. on or before 30.6.2022, indicating the effective date of such additional GNA. Suppose 'A' applies for GNA w.e.f. 1.8.2022 for 800 MW which may be granted by CTU, subject to availability of transmission system. If additional GNA of 800 MW is granted to 'A' by CTU, GNA for 'A' will become 4800 MW (4000 MW + 800 MW) as on 1.8.2022.

Thereafter 'A' may apply once in every financial year by the month of September for additional GNA for the next 3 financial years indicating the start date for such

quantum i.e. he may apply for additional GNA over and above 4800 MW by 30.9.2022 in terms of Regulation 19.2 of the 2021 Draft GNA Regulations to be added from specified date of FY 2023-24 (200 MW w.e.f 22.6.2023), FY 2024-25 (100 MW w.e.f 18.5.2024) and FY 2025-26 (300 MW w.e.f 14.9.2025). The same may be granted by the Nodal Agency depending upon availability of transmission system, by 31st March 2023. Consequent upon grant of additional GNA on 31st March 2023, GNA for 'A' shall be as follows:

Financial Year	Additional GNA granted in each FY from a specified date	Total GNA after grant of additional GNA
2023-24	200 MW w.e.f. 22.6.2023	5000 MW w.e.f. 22.6.2023
2024-25	100 MW w.e.f. 18.5.2024	5100 MW w.e.f. 18.5.2024
2025-26	300 MW w.e.f. 14.9.2025	5400 MW w.e.f. 14.9.2025

b) In FY 2023-24, 'A' may again apply, by 30th September 2023, additional GNA to be added in next 3 financial years. Suppose it applies for FY 2024-25 (nil), FY 2025-26 (100 MW w.e.f. 4.10.2025) and FY 2026-27 (300 MW w.e.f 1.5.2026) which is granted by CTU as per availability of transmission system. After such grant GNA of 'A' shall be as follows:

Financial Year	Additional GNA granted in each FY from a specified date	Total GNA after grant of additional GNA from respective date of the year	Remarks
2024-25	-	5100 MW w.e.f. 18.5.2024	As applied on 30.9.2022 and granted on 31.3.2023 under Table 1 at paragraph (a) above
2025-26	100 MW w.e.f. 4.10.2025	5400 MW w.e.f. 14.9.2025 5500 MW w.e.f. 4.10.2025	As applied on 30.9.2022 and granted on 31.3.2023 under Table 1 at paragraph (a) above As applied on 30.9.2023 and granted on 31.3.2024
2026-27	300 MW w.e.f. 1.5.2026	5800 MW w.e.f. 1.5.2026	As applied on 30.9.2023 and granted on 31.3.2024

10.4 GNA once granted shall remain valid until relinquished in terms of proposed Regulation 18.1(c), 22.1(a) and 22.1(b) of the 2021 Draft GNA Regulations.

11. <u>One-time GNA charges</u>

It has been proposed under Regulation 22.2(d) of the 2021 Draft GNA Regulations that entities covered under Regulations 4.1 and 17.1(iii) of the 2021 Draft GNA Regulations shall furnish one-time GNA charges @ Rs 1 lakh/MW one month prior to start date of GNA. Such charges collected every month shall be used to reduce the transmission charges under the Sharing Regulations.

12. <u>Use of GNA by other GNA grantee(s)</u>

12.1 Any entity having surplus GNA for a period due to reduction in load or seasonal variation, can authorise part of its granted GNA to others with prior approval of CTU. The provision of use of GNA of an entity (covered under Regulation 17.1) by other GNA grantee(s) is proposed in Regulation 23 of the 2021 draft GNA Regulations as under:

*"**23. Use of GNA by other GNA grantee(s)***
***23.1.** An entity covered under Regulation 17.1 which is a GNA grantee, may authorise other entities covered under Regulation 17.1 which are GNA grantee(s), to use its GNA, in full or in part, with prior approval of the Nodal Agency, for a period not exceeding 1 (one) year at a time on mutually agreed terms and conditions:*

Provided that payment liability for transmission charges shall continue to be with the original GNA grantee that authorised its GNA to be used by other GNA grantee(s):

Provided further that for the purpose of calculating the transmission deviation charges under the Sharing Regulations, GNA authorised to be used by other GNA grantee(s) shall be reduced from original GNA grantee that authorised its GNA to be used by other GNA grantee(s) and shall be added to GNA of other GNA grantee(s) which is using it.

***23.2.** The GNA grantee that intends to authorise the use of its GNA by other GNA grantee(s), shall apply to the Nodal Agency in terms of the Detailed Procedure for Connectivity and GNA issued in accordance with Regulation 39.1."*

12.2 *Illustration:*

Suppose GNA of Uttar Pradesh is 10,000 MW and GNA of Punjab is 8,000 MW. Suppose Punjab envisages ISTS drawal of additional 800 MW in the months of June and July of a year and at the same time, Uttar Pradesh envisages its ISTS drawal lower than 10,000 MW. In such a case, Uttar Pradesh may apply (along with mutually

agreed terms and conditions with Punjab) to Nodal Agency for approval of use of its GNA of 800 MW by Punjab. Payment liability for GNA of 10,000 MW and 8,000 MW shall continue with Uttar Pradesh and Punjab respectively during the period (June and July of that year) of such use. However, for the purpose of calculation of transmission deviation charges, GNA of Uttar Pradesh and Punjab shall be considered as 9,200 MW and 8,800 MW respectively for the months of June and July of that year.

13. Relinquishment of GNA

13.1 It is proposed that GNA may be relinquished by entities covered under Regulation 17.1 of 2021 Draft GNA Regulations as reproduced below:

"25.1 For an entity covered under Regulation 17.1, GNA once granted can be relinquished, in full or in part, on payment of relinquishment charges in advance as per following:

(a) *For an entity covered under clause (i) of Regulation 17.1 of these regulations, STU may relinquish GNA on behalf of identified intra-State entity. The relinquishment charges shall be equal to 60 times the transmission charges paid by such intra-State entity for the last billing month under the Sharing Regulations, corresponding to the relinquished quantum.*

(b) *For an entity covered under clauses (ii) to (iv) of Regulation 17.1 of these regulations, the relinquishment charges shall be equal to 60 times, the transmission charges paid by such entity for the last month under the Sharing regulations, corresponding to the relinquished quantum.*

Provided that, if the balance period of GNA is less than 60 months, the relinquishment charges shall be equal to the number of balance months times the transmission charges paid by such entity for the last month under the Sharing Regulations, corresponding to the relinquished quantum.

(c) *Relinquishment charges received under clauses (a) and (b) of this Regulation shall be used for reducing Monthly Transmission Charges under the Sharing Regulations.*

(d) *On relinquishment of full quantum of GNA by entity covered under clause (iii) of Regulation 17.1 of these regulations, such entity shall be disconnected from the grid."*

13.2 *Illustrations:*

(a) Relinquishment by STU on behalf of intra-State entity(ies) as per provisions of Regulation 25.1(a) of the 2021 Draft GNA Regulations

Suppose State 'A' has GNA of 4,000 MW and out of this, GNA of a particular distribution company 'D-1' embedded within 'A' is 1000 MW. 'D-1' may request STU of 'A' to relinquish its GNA for, say, 100 MW w.e.f. 1.5.2022 and STU may relinquish the requested GNA of 100 MW on behalf of D-1 w.e.f. 1.5.2022. Assuming that D-1 is billed transmission charges @ Rs.2,50,000/MW in the billing month of April 2022, it shall be liable for the following relinquishment charges as per proposed Regulation 25.1(a) of the 2021 Draft GNA Regulations:

Rs.2,50,000/MW x 100 MW x 60 = Rs.150 crore

(b) Relinquishment by entities covered under Regulation 17.1(ii), Regulation 17(iii) or Regulation 17(iv) of the 2021 Draft GNA Regulations as per provisions of Regulation 25.1(b) of the 2021 Draft GNA Regulations

(i) Suppose an intra-State open access consumer 'C-1' has GNA for 400 MW for 4 years w.e.f. 1.7.2022 and it relinquishes GNA of 100 MW with effect from 1.7.2025. It shall be liable to pay relinquishment charges for 100 MW for balance period of GNA i.e. for 12 Months (48-36). Say, 'C-1' is billed @ Rs.2,50,000/MW in the billing month of June 2025, it shall be liable for the following relinquishment charges as per proviso to Regulation 25.1(b) of the 2021 Draft GNA Regulations:

Rs.2,50,000/MW x 100 MW x (48-36) = Rs.30 crore

(ii) Suppose a distribution licensee 'D-2' under proposed Regulation 17.1(iii) of the 2021 Draft GNA Regulations is granted GNA of 400 MW for 12 years w.e.f. 1.7.2022 and it relinquishes GNA of 100 MW with effect from 1.7.2025. Say, 'D-2' is billed @ Rs 2,50,000/MW in the billing month of June 2025. It shall be liable for the following relinquishment charges as per Regulation 25.1(b) of the 2021 Draft GNA Regulations:

Rs.2,50,000/MW x 100 MW x 60 = Rs.150 crore

(iii) Suppose a trading licensee 'T-1' is engaged in cross border trade of electricity and is granted GNA of 200 MW for 3 years w.e.f. 1.7.2022 and it relinquishes GNA of 100 MW with effect from 1.7.2024. Say, T-1 is billed @ Rs.2,50,000/MW in the billing month of May 2024. It shall be liable for the following relinquishment charges as per proviso to Regulation 25.1(b) of the 2021 Draft GNA Regulations:

Rs.2,50,000/MW x 100 MW x (36-24) = Rs.30 crore

14. T-GNA and National Open Access Registry (NOAR)

14.1 T-GNA may be availed over and above the GNA and is a product akin to prevailing Short term Open Access. T-GNA is an open access provided to eligible buying entity for any duration from one time block and up to eleven months. Apart from catering to the need of short term customers, the proposed framework of T-GNA will also facilitate GNA grantees to balance their portfolio due to any eventuality or demand variability.

14.2 T-GNA shall be granted over the available surplus capacity in ISTS after allocating the quantum for GNA. This proposal is similar to the prevailing practice under the Open Access Regulations, wherein short term open access (STOA) is granted subject to surplus capacity available after use by LTA and MTOA customers.

14.3 Entities eligible to apply for T-GNA are proposed in Regulation 26 of the 2021 Draft GNA Regulations.

14.4 T-GNA for bilateral transactions is proposed under categories of (i) Advance application and (ii) Exigency application.

14.5 Under Exigency application category of T-GNA, booking of transmission corridor as well as scheduling is proposed to be done simultaneously similar to the prevailing practice under STOA. However, under Advance application category of T-GNA, booking of transmission corridor and scheduling (on day ahead basis) are proposed to be two separate activities akin to prevailing practice under LTA/ MTOA.

14.6 The option of scheduling on day-ahead basis under Advance application category of T-GNA offers flexibility that T-GNA grantee shall be eligible to schedule power under any contract up to its T-GNA.

14.7 If an applicant wishes to apply for T-GNA, starting from any day in the month of, say, October, it can apply for same in the month of September or October.

14.8 All the applications for T-GNA are proposed to be processed on first-come-first-served basis. The processing timeline for the Nodal agency for T-GNA applications under Advance application category is one day i.e. Nodal Agency shall process the application by the end of the next day to the day on which application has been made.

14.9 It is proposed that only buyer(s) or entity on behalf of buyer(s) will be eligible as Applicant to apply for T-GNA. Selling entities (except in case of cross border transactions) are not required to apply for T-GNA, since Connectivity grantees are proposed to be granted deemed GNA corresponding to the Connectivity quantum.

14.10 In order to simplify the process or application and grant of T-GNA, it has been envisaged that T-GNA applications shall be applied and processed through single window electronic platform viz. National Open Access Registry (NOAR) that shall fully automate the administration of T-GNA right from application till final payment and reconciliation. It shall also provide the audit trail of T-GNA applications and, hence, act as repository of information related to T-GNA including standing clearance issued by RLDCs and SLDCs, availability of transmission corridor, status of applications including T-GNA granted and rejected. It shall also facilitate generation of periodic reports for market monitoring and surveillance. This would facilitate fast transaction settlement and reduce the processing time to process the applications for grant of T-GNA by the Nodal Agency including standing clearance, thereby, enable the T-GNA grantee to schedule their power up to the granted T-GNA quantum in a smooth, well-coordinated and expedited manner. Provision of NOAR has been proposed in Regulation 27 of the 2021 Draft GNA Regulations.

Illustrations (for applications for grant of T-GNA):

(A) **Advance Application category**

- Advance application for grant of T-GNA, say for 200 MW for 10 days, made on 20.11.2021 (“D” day) can be for transaction of power starting on or after 23.11.2021 (“D+3” day). Assuming that there is availability of transmission corridor, the Nodal Agency shall grant T-GNA of 200 MW for 10 days.

- T-GNA grantee may request to schedule power for 23.11.2021 ("S" day) against the granted T-GNA (up to 200 MW) on 22.11.2021. Similarly, for subsequent days for which T-GNA has been granted. A snapshot is provided in the following table:

Advance application for grant of T-GNA of 200 MW made on	20.11.2021 ("D" day)
Application shall be considered on first-come-first-served basis and shall be processed by Nodal Agency latest by	2359 hrs of 21.11.2021 ("D+1" day)
Scheduling request by T-GNA grantee for scheduling of power up to 200 MW on 23.11.2021 ("S" day = "D+3" day) shall be made by	Specified time on 22.11.2021
Scheduling request for T-GNA grantee for scheduling of power up to 200 MW on 24.11.2021 ("S" day = "D+4" day) shall be made by	Specified time on 23.11.2021
Scheduling request for T-GNA grantee for scheduling of power up to 200 MW on 25.11.2021 ("S" day = "D+5" day) shall be made by	Specified time on 24.11.2021
……and so on…..	

(B) Exigency Application category

- Exigency application for grant of T-GNA for 200 MW made on 20.11.2021 ("D" day) for T-GNA with scheduling for (S) day, may be for 20.11.2021 ("D" day) or 21.11.2021 ("D+1" day) or 22.11.2021 ("D+2" day), with a minimum start time of seven time blocks.
- T-GNA granted (200 MW) under Exigency application category shall be considered as scheduled, which cannot be revised.

- A snapshot is provided in the following table:

Scheduling of 200 MW for 20.11.2021	
Applications received on 20.11.2021 (same as day of Scheduling)	processed within four time blocks on same day i.e. 20.11.2021, on first-come-first-

	served basis
Scheduling of 200 MW for 21.11.2021	
Applications received till 1300 hrs of 20.11.2021	processed after 1300 hrs on 20.11.2021 on first-come-first-served basis and shall be finalised by 1400 hrs of 20.11.2021.
Applications received after 1300 hrs of 20.11.2021 or in the day of scheduling i.e. 21.11.2021	processed within four time blocks on 20.11.2021 or 21.11.2021 as the case may be, on first-come-first-served basis

15. Transmission Corridor allocation

15.1 Once a State has GNA quantum, it can request scheduling from injection point of its choice as per its contract. The methodology of scheduling and priority of transmission corridor allocation shall be covered under the Grid Code.

15.2 In case the scheduling request of the GNA Grantee cannot be accommodated by RLDC due to constrain in transmission corridor, RLDC shall allocate the available transmission corridor amongst the GNA grantees in proportion to their GNA within the region or from outside region and the GNA grantee shall be eligible to schedule power under any contract within such allocated transmission corridor. In case the revised schedule is not furnished by the GNA Grantee, RLDC shall finalise the schedule for such GNA Grantee by pro rata reduction of schedule under each contract for such constrained transmission corridor.

15.3 Transmission corridor shall be allocated on day ahead basis to GNA grantees and T-GNA grantees as per the priority and indicative time-line as indicated in following illustration:

Sr. No.	Activity	Time (By hours in S-1)*
1.	Generating stations to declare DC for "S day"	'T' hours
2.	RLDC to reflect respective share for each beneficiary	'T+1' hours
3.	GNA grantee to give scheduling request within GNA	'T+2' hours

	T-GNA grantee to give scheduling request within T-GNA	
4.	In case demand of corridors is more than availability, RLDC to intimate pro-rata corridor allocation to GNA grantee to enable it to place revised scheduling request	T+2.5 hours
5.	RLDC to confirm schedules for GNA grantees	T+3 hours
6.	RLDC to release balance corridor for scheduling T-GNA requests under Advance Application	T+3 hours
7.	RLDC to process T-GNA scheduling request and confirm schedule for T-GNA grantees	T+3.5 hours
8.	RLDC to release balance corridor for day ahead collective transactions	T+3.5 hours
9.	Bidding window for Day ahead collective transactions	T+4 - T+5.5 hours
10.	Application by Power Exchange(s) for allocation of corridors	T+6 hours
11.	RLDC to confirm scheduling based on corridor availability	T+6.5 hours
12.	RLDC to issue schedule for collective transactions based on final market clearing by exchanges	T+7 hours
13.	RLDC to release balance corridor for Exigency applications received till T+7 hours	T+7 hours
14.	RLDC to process Exigency applications received till T+7 hours	T+8 hours
15.	RLDC to release balance corridor for schedule revision by GNA grantees, Exigency Applications, RTM	T+8 hours

*Indicative timeline to be finalised as per Grid Code

15.4 NLDC should declare the transmission corridor availability after finalisation of schedule for each type of grantees so as to facilitate transparency for stakeholders while they request for next set of transactions.

15.5 Accordingly following has been proposed in 2021 Draft GNA Regulations:

"36.1 GNA grantee shall be eligible to schedule power within the GNA granted to it under any contract subject to conditions specified in the Grid Code:

Provided that in case of constraint in transmission system, the available transmission corridor shall be allocated to the GNA grantees in proportion to their GNA within the region or from outside region and the GNA grantee shall be eligible to schedule power under any contract within such allocated transmission corridor.

36.2 T-GNA grantee under Advance application category, within the T-GNA granted to it, shall be eligible to schedule power under any contract subject to the conditions specified in the Grid Code:

Provided that in case the day ahead scheduling request of T-GNA grantees for full quantum of T-GNA cannot be accommodated due to non-availability of sufficient transmission corridor, scheduling shall be on pro rata basis for T-GNA grantees in proportion to their T-GNA.

36.3 Once the day ahead schedule is finalised for the GNA grantees, schedule for T-GNA grantees under Advance application category of T-GNA shall be finalised over the balance transmission corridor.

36.4 After allocation of transmission corridor to GNA grantees and T-GNA grantees under Advance application category, the balance transmission corridor shall be released for collective transactions under day ahead market.

36.5 After finalisation of collective transactions under day ahead market, Exigency applications for grant of T-GNA received till 1300 hrs of 'S-1' day or such time as specified in the Grid Code, shall be allocated the transmission corridor.

36.6 After the allocation of transmission corridors under Regulations 36.1 to 36.4, the balance transmission corridor may be utilised by GNA grantee by way of revision of schedule, as stipulated in the Grid Code, under any contract within its GNA or under Exigency application category or Real time market based on time stamp for such request."

16. <u>Arrangement for Transition</u>

16.1 It has been proposed that Applicants, who have been granted Connectivity under Regulation 4.1 of the 2021 Draft GNA Regulations, shall be granted GNA equal to their Connectivity. Such entities are not liable to pay monthly transmission charges for the capacity once they achieve commercial operation. However, they are required to open Connectivity Bank Guarantees which are proposed to be encashed or returned as provided in various provisions of the proposed Regulations. On the other hand, the buying entities shall have GNA based on historical ISTS drawal (to start with) and

they may seek additional GNA as per their requirement. These entities shall be liable to pay monthly transmission charges under the Sharing Regulations.

16.2 To the extent possible, the above principles have been proposed to be aligned for entities already connected to the grid or who have applied for Connectivity or Long term Access or Medium term open access under 2009 Connectivity Regulations but yet to be connected to the grid as on date of coming into force of the proposed Regulations. Such entities may be injecting entities covered under Regulation 4.1 of the 2021 Draft GNA Regulations or buying entities covered under Regulation 17.1 of the 2021 Draft GNA Regulations. For such entities there are different products under the 2009 Connectivity Regulations such as Connectivity, LTA, MTOA and STOA. The status of such products may be one of the followings:

(i) Application made but not yet granted;
(ii) Granted but not effective;
(iii) Effective

16.3 The treatment for entities covered under Regulation 4.1 of the 2021 Draft GNA Regulations for each of the above condition has been proposed to be dealt as per following table (for illustration purpose for some of the cases and is not exhaustive):

S. No.	Status of Connectivity and LTA/ MTOA as on date of coming into force of the proposed Regulations	Proposed clause in the 2021 Draft GNA Regulations	Treatment	Details of Bank Guarantee
1	Application of Connectivity is submitted but it is yet to be granted	Regulation 37.1	Entity has option to convert the Connectivity application as made under 2021 Draft GNA Regulations.	Submit Application Fees and BGs as per this Regulation.
			Entity has option to withdraw the application.	Application fees and BGs submitted earlier, if any, shall be returned.

S. No.	Status of Connectivity and LTA/ MTOA as on date of coming into force of the proposed Regulations	Proposed clause in the 2021 Draft GNA Regulations	Treatment	Details of Bank Guarantee
2	Connectivity is granted but is not effective No LTA has been sought	Regulation 37.2	Entity has option to convert the Connectivity granted as made under 2021 Draft GNA Regulations.	Submit Conn-BG1, Conn-BG2 and Conn-BG3 as intimated by Nodal Agency after adjusting bank guarantee paid under 2009 Connectivity Regulations.
			Entity has option to surrender the Connectivity.	Conn-BG1 and Conn-BG2 furnished under the 2009 Connectivity Regulations shall be returned. Conn-BG2 shall be encashed in case construction of terminal bays has been awarded.
3	Connectivity of 1000 MW is granted but is not effective LTA of 600 MW out of above 1000 MW is granted on existing system but is not effective	Regulation 37.3(2)	Entity has option to convert LTA into GNA and Connectivity of 600 MW shall be deemed granted under 2021 Draft GNA Regulations. Balance Connectivity for which there is no LTA (400 MW) granted, shall be treated as per Regulation 37.2.	Furnish Conn-BG1 for Rs.50 lakhs and Conn-BG3 @ Rs.2 lakh/MW corresponding to such LTA. Conn-BG2 if any furnished under the 2009 Connectivity Regulations, shall be treated as Conn-BG2 under these regulations. BG, if any, furnished under 2009 Connectivity Regulations shall be adjusted.

S. No.	Status of Connectivity and LTA/ MTOA as on date of coming into force of the proposed Regulations	Proposed clause in the 2021 Draft GNA Regulations	Treatment	Details of Bank Guarantee
			Entity has option to surrender the LTA. Connectivity of 1000 MW shall be treated as per Regulation 37.2.	Application Bank Guarantee, if any, submitted by the entity under the 2009 Connectivity Regulations shall be returned.
4	Connectivity of 1000 MW is granted and is effective LTA of 600 MW out of above 1000 MW is granted on existing system but is not effective	Regulation 37.3(2)	Entity has option to convert LTA into GNA and Connectivity of 600 MW shall be deemed granted under 2021 Draft GNA Regulations. Balance Connectivity for which there is no LTA (400 MW) shall be treated as per Regulation 37.6.	Furnish Conn-BG1 for Rs.50 lakhs and Conn-BG3 @ Rs.2 lakh/MW corresponding to such LTA. Conn-BG2 if any furnished under the 2009 Connectivity Regulations, shall be treated as Conn-BG2 under these regulations. BG, if any, furnished under 2009 Connectivity Regulations shall be adjusted.
			Entity has option to surrender the LTA. Connectivity of 1000 MW shall be treated as per Regulation 37.6.	Application Bank Guarantee, if any, submitted by the entity under the 2009 Connectivity Regulations shall be returned.
5	Connectivity of 1000 MW is granted but is not effective LTA of 600 MW out of above 1000 MW is granted with system augmentation	Regulation 37.3 (3)	Entity has option to convert LTA into GNA and Connectivity of 600 MW shall be deemed granted under 2021 Draft GNA Regulations. Balance Connectivity for which there is no	Construction Bank Guarantee (CBG) already furnished shall be treated as Conn-BG1 for Rs.50 lakhs and balance as Conn-BG2 under these regulations. In case no CBG has been furnished pursuant

S. No.	Status of Connectivity and LTA/ MTOA as on date of coming into force of the proposed Regulations	Proposed clause in the 2021 Draft GNA Regulations	Treatment	Details of Bank Guarantee
	but is not effective		LTA (400 MW) shall be treated as per Regulation 37.2.	to signing of PPA and PSA, it shall furnish Conn-BG1 for Rs.50 lakhs and Conn-BG3 @ Rs.2 lakh/MW corresponding to such LTA.
			Entity has option to surrender the LTA. Connectivity of 1000 MW shall be treated as per Regulation 37.2.	Construction Bank Guarantee furnished under 2009 Connectivity Regulations shall be encashed to the extent of estimated cost of ATS that has been awarded for implementation, subject to capping of the bank guarantee already furnished and balance, if any, shall be returned.
6	Connectivity of 1000 MW is granted and is effective LTA of 600 MW out of above 1000 MW is granted with system augmentation but is not effective	Regulation 37.3 (3)	Entity has option to convert LTA into GNA and Connectivity of 600 MW shall be deemed granted under 2021 Draft GNA Regulations. Balance Connectivity for which there is no LTA (400 MW), shall be treated as per Regulation 37.6.	Construction Bank Guarantee already furnished shall be treated as Conn-BG1 for Rs.50 lakhs and balance as Conn-BG2 under these regulations. In case no CBG has been furnished pursuant to signing of PPA and PSA, it shall furnish Conn-BG1 for Rs.50 lakhs and Conn-BG3 @ Rs.2 lakh/MW corresponding to such LTA.

S. No.	Status of Connectivity and LTA/ MTOA as on date of coming into force of the proposed Regulations	Proposed clause in the 2021 Draft GNA Regulations	Treatment	Details of Bank Guarantee
			Entity has option to surrender the LTA. Connectivity of 1000 MW shall be treated as per Regulation 37.6.	Construction Bank Guarantee furnished under 2009 Connectivity Regulations shall be encashed to the extent of estimated cost of ATS that has been awarded for implementation, subject to capping of the bank guarantee already furnished and balance, if any, shall be returned.
7	Connectivity of 1000 MW is granted and is effective LTA is not granted	Regulation 37.6	Entities may apply for GNA of 1000 MW under proposed Regulation 17.2 and GNA shall be granted under proposed Regulation 37.6 (1) Connectivity shall be deemed converted as made under these Regulations.	<u>If GNA can be granted on exiting system</u> Furnish Conn-BG3 @ Rs.2 lakh/MW. <u>If ATS is required to grant such GNA</u> Application to be processed as per Regulation 8.3 including submission of Conn-BG1 and Conn-BG2.
8	Connectivity of 1000 MW is granted and is effective LTA of 600 MW out of above 1000 MW is granted as Target Region basis and is effective	Regulation 37.6	600 MW LTA shall be deemed converted into GNA as per proposed Regulation 18.1 (f). Entities may apply for GNA of 400 MW (balance capacity of Connectivity) under proposed Regulation 17.2 and GNA shall be granted under proposed Regulation	Furnish Conn-BG3 @ Rs.2 lakh/MW for LTA capacity of 600 MW. <u>If GNA can be granted on exiting system</u> Furnish Conn-BG3 @ Rs.2 lakh/MW for 400 MW.

S. No.	Status of Connectivity and LTA/ MTOA as on date of coming into force of the proposed Regulations	Proposed clause in the 2021 Draft GNA Regulations	Treatment	Details of Bank Guarantee
			37.6 (1) Connectivity for 1000 MW shall be deemed converted as made under these Regulations.	<u>If ATS is required to grant such GNA for 400 MW</u> Application to be processed as per Regulation 8.3 including submission of Conn-BG1 and Conn-BG2 for 400 MW.
9	Connectivity of 1000 MW is granted and is effective LTA of 1000 MW is granted as Target Region basis and is effective.	Regulation 37.6	1000 MW LTA shall be deemed converted to GNA as per proposed Regulation 18.1 (f). Connectivity shall be deemed converted as made under these Regulations.	Furnish Conn-BG3 @ Rs.2 lakh/MW for LTA capacity of 1000 MW.
10	Connectivity of 1000 MW is granted and is effective MTOA of 600 MW is granted for 3 Years but is not yet effective	Regulation 37.4 (1)	Entity may apply to convert Connectivity/MTOA for 600 MW into GNA for 3 years under these regulations. For beyond 3 years, entity may apply for converting its Connectivity granted under the 2009 Connectivity Regulations as Connectivity granted under these regulations. Balance Connectivity for 400 MW, for which there is no MTOA or LTA shall be treated as per	Furnish Conn-BG3 @ Rs 2 lakh/MW corresponding to such MTOA quantum which shall be returned after completion of the term of MTOA. Any BG for MTOA already furnished shall be adjusted.

S. No.	Status of Connectivity and LTA/ MTOA as on date of coming into force of the proposed Regulations	Proposed clause in the 2021 Draft GNA Regulations	Treatment	Details of Bank Guarantee
			Regulation 37.6.	
			Entity also has option to withdraw the MTOA of 600 MW. Connectivity granted shall be treated as per Regulation 37.6.	Bank Guarantee furnished for MTOA, if any, shall be returned.
11	Connectivity of 1000 MW is granted and is effective MTOA of 600 MW is granted for 3 Years and is effective	Regulation 37.8 (a)	600 MW MTOA and Connectivity shall be deemed granted under these regulations for 3 years. Balance Connectivity for which there is no MTOA/LTA (400 MW) shall be treated as per proposed regulation 37.6.	No additional BG required to be furnished.

16.4 The treatment for entities covered under Regulation 17.1 of the 2021 Draft GNA Regulations for each of the above condition has been proposed to be dealt as per following table:

Sr. No.	Status of Connectivity and LTA/ MTOA as on date of coming into force of the proposed Regulations	Proposed clause in the 2021 Draft GNA Regulations	Treatment	Details of Bank Guarantee
1	LTA is granted and effective	Regulation 37.7	Considered as part of GNA deemed granted to the concerned entities under proposed	-

			Regulation 18.1.	
2	MTOA of 600 MW is granted for 3 Years but is not yet effective	Regulation 37.4 (2)	600 MW MTOA is deemed converted to GNA for 3 years with start date as the date from which such MTOA was to become effective.	-
3	MTOA of 600 MW is granted for 3 Years and which is effective	Regulation 37.8 (b)	GNA corresponding to 600 MW shall be considered shall be considered as part of GNA deemed to have been granted to the concerned entities. The corresponding quantum shall be considered as deemed GNA for entity covered under Regulation 4.1 of these regulations with whom the entity under Regulation 17.1 has entered into PPA.till period of MTOA.	-

16.5 The treatment Trading licensee other than that covered under Regulation 17.1 of the 2021 Draft GNA Regulations has been proposed to be dealt as per following table:

Sr. No.	**Status of LTA as on date of coming into force of the proposed Regulations**	**Proposed clause in the 2021 Draft GNA Regulations**	**Treatment**	**Details of Bank Guarantee**
1	LTA is granted but is not yet effective	Regulation 37.5	LTA granted shall be treated as withdrawn.	Bank guarantee furnished, if any, shall be returned.
2	LTA granted is effective	Regulation 18.1(h)	LTA shall be part of the GNA deemed to have been granted to the concerned grid connected entity.	

16.6 The treatment for STOA applications for all entities has been proposed to be dealt as per following table:

Sr. No.	Status of STOA as on date of coming into force of the proposed Regulations	Proposed clause in the 2021 Draft GNA Regulations	Treatment	Details of Bank Guarantee
1	STOA granted as on the date of coming into effect of these Regulations	Regulation 37.9 (a)	STOA shall be treated as T-GNA under Exigency application category for the term of such STOA.	-
2	STOA not yet granted as on the date of coming into effect of these Regulations	Regulation 37.9 (b)	All such applications pending with RLDC or NLDC shall be closed.	-

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Annexure-I

Sl. No.	Country	Sharing of network operator Charges (in %)	
		Generation	Load
1	Albania	0	100
2	Austria	8	92
3	Belgium	5.6	94.4
4	Bosnia and Herzegovina	0.1	99.9
5	Bulgaria	0	100
6	Croatia	0	100
7	Cyprus	0	100
8	Czech Republic	0	100
9	Denmark	4.3	95.7
10	Estonia	0	100
11	Finland	18.6	81.4
12	France	3	97
13	Germany	0	100
14	Great Britain	16.1	83.9
15	Greece	0	100
16	Hungary	0	100
17	Iceland	0	100
18	Ireland	25	75
19	Italy	0	100
20	Latvia	0	100
21	Lithuania	0	100
22	Luxembourg	0	100
23	North Macedonia	3	97
24	Montenegro	0	100
25	Netherlands	0	100
26	Northern Ireland	25	75
27	Norway	29	71
28	Poland	0	100
29	Portugal	9.1	90.9
30	Romania	3	97.1
31	Serbia	0	100
32	Slovakia Republic	2.9	97.1
33	Slovakia	3.1	96.9
34	Spain	0	100
35	Sweden	36	64
36	Switzerland	0	100
Link	**https://eepublicdownloads.entsoe.eu/clean-documents/mc-documents/201209_ENTSO-E%20Transmission%20Tariff%20Overview_Synthesis%202019.pdf**		

From the above table, it is observed that out of 36 countries, load shares 100% of network operator charges in 20 countries while in another 7 countries, load shares more than 95% charges.

In Australia and Singapore, 100% transmission charges are recovered from load (reference: PJM report named *'A Survey of Transmission Cost Allocation Issues, Methods and Practices‖ dated March 2010'*). PJM Report also provides as under:

"An overriding question is whether to assess costs to generators, load or both. In the vertically integrated utility environment prior to retail restructuring of the electric utility industry and the advent of organized wholesale power markets in much of the United States, generation and transmission were planned together and built to serve load. Operating under cost-of-service regulation, utilities were allowed to recover their costs and a return from the load they served. Appropriately, all transmission costs were allocated to load with generation bearing none of the cost burden. Some parts of the country have not undergone retail restructuring and continue to use the vertically integrated model for transmission planning and cost allocation.

In today's regulatory environment in which competitive generation and load conduct business on the transmission system in wholesale markets, there is the chance that both generation and load could be beneficiaries of new transmission upgrades/projects. It is not necessarily the case that new generation is built and existing generation maintained to serve specific loads. Instead, generation competes on a contract basis or through wholesale spot markets to serve load, which is no longer necessarily tied to a specific generator or set of generators.

All parties use the transmission system to either deliver generated energy to the market or withdraw that energy to serve load. Accordingly, some argue that it is appropriate in this environment for at least some transmission costs to be allocated to generation.

Allocating Costs to Load or Generation: U.S. Practices

As a general rule, all RTOs in the United States allocate the cost of transmission infrastructure to load. The manner in which load is allocated cost and the rate design for cost recovery differ across RTOs, but load remains responsible for paying for transmission infrastructure. As a general rule, generators interconnecting to the transmission system are responsible for the cost of direct interconnection facilities, except for a special case in the California ISO. This exception in the California ISO relates to the interconnection of renewable resources, primarily wind…"
