Ref: ABC CT/CERC/Staff paper on GNA/Comment/2024-25 **Date:**11/11/2024

To,
Shri Harpreet Singh Pruthi,
Secretary,
Central Electricity Regulatory Commission
6th, 7th & 8th Floors, Tower B, World Trade Centre,
Nauroji Nagar, New Delhi- 110029

Sub: Comments on Suggestions on Central Electricity Regulatory Commission Staff Paper for necessary modifications in the GNA Regulations

Respected Sir,

Please accept our warm Greetings of the Day!

I am writing on behalf of ABC Cleantech Private Limited, to provide our comments on the Suggestions on Central Electricity Regulatory Commission Staff Paper for necessary modifications in the GNA Regulations.

ABC Cleantech remains committed to engaging constructively with CERC throughout this process. We are submitting herewith our comments on the above subject and hope to ensure that the suggestions achieves its objectives while minimizing unintended consequences for stakeholders.

We welcome further dialogue and are prepared to provide additional information or clarification upon request.

Thank you for considering our comments.

Yours faithfully

For **ABC Cleantech Pvt. Ltd.**

Prashant Kanaujia
Authorized Signatory

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Comments and Suggestions on Central Electricity Regulatory Commission Staff Paper for necessary modifications in the GNA Regulations

S.No	Issue No	Comments and suggestions
1	***Issue No. 1: Substitution of GNA quantum under Regulation 17.1(i) to Regulation 17.1(iii) to the GNA Regulations*** *i. Whether such substitution of GNA quantum under Regulation 17.1(i) to GNA under Regulation 17.1(iii) should be allowed?* *ii. If such substitution is allowed, should it be coupled with the following conditions:* *a. the entity shall submit the NOC from the STU.* *b. the entity shall be liable for payment of the charges of the intra-State network or relinquishment charges, as applicable.* *c. the entity shall be radially connected with the ISTS as 17.1(iii) entity*	This suggestion is a positive recommendation. Allowing the substitution of GNA quantum under Regulation 17.1(i) with GNA under Regulation 17.1(iii) would enable DISCOMs to optimize transmission charges and reduce losses, with any savings potentially being passed on to consumers through lower tariffs. However, such savings would only occur if there is a corresponding reduction in drawl from the STU network by the DISCOM/intra-state entity. If the entity remains significantly connected to the STU network for reliability purposes, these savings may not be realized. Nevertheless, including this provision in the GNA regulations would be advantageous. The substitution process should not require a mandatory NOC from the STU but should instead proceed with a notification to the STU. Since the DISCOM/intra-state entity remains connected to the STU network (as outlined in Para 2.4 of the staff paper), the transmission infrastructure will continue to be utilized and paid for under existing SERC regulations. If the substitution results in the DISCOM/intra-state entity relinquishing its connectivity with the STU network, the relevant provisions of SERC-STU regulations would naturally take effect.
2	***Issue No. 2: Use of GNA of a Connectivity grantee by an entity connected with an intra-State network that is not a GNA grantee.*** *i. Whether such utilisation of GNA of a GNA grantee can be allowed by an entity that is not a GNA grantee?* *ii. If such use is allowed, should it be coupled with the following conditions:*	The utilization of GNA by a non-GNA grantee entity, connected through the InSTS or DISCOM network, should be allowed. Such utilization should be contingent upon obtaining a NOC from the STU or DISCOM, confirming that there is sufficient transmission capacity available within the intra-state network to support the power flow.

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	a. Such request to be made along with the NOC from the STU towards availability of space in the intra-State network for such quantum of GNA and period. *b. Such request for utilisation of GNA shall be from an entity located in the same State or same region as that of the GNA grantee. The additional conditionalities that need to be imposed for considering the GNA utilisation beyond the state.* *c. Such request should only be allowed based on the margin available in ISTS, and no augmentation in the ISTS is to be made to facilitate such use of GNA.* *d. Such utilisation shall be restricted to GNA only and not GNARE.* *iii. Issue of Waiver of transmission charges: If entity 'B' draws power from RE resources, should the GNA grantee 'A' be allowed waiver in respect of such RE power drawl.*	This is particularly beneficial as the intra state entity is able to source power under open access without taking extra GNA/GNAre. Consider a scenario when an intra state entity connected with DISCOM network wants to source RE power from ISTS. Since no new load is getting connected within the state network so practically, the requirement of power from outside the state and thus quantum of GNA remains the same. Allowing, this entity to share the GNA with the DISCOM GNA actually optimizes the GNA quantum. Waiver should be allowed to entity "A" in case of sourcing of power under RE. In terms of GNA cost sharing, a method can be devised which guides the GNA holding entity as to how to compute the charges it should charge the entity which is utilizing the GNA may be during few time blocks. Furthermore, the use of GNA by a non-GNA grantee entity should be permissible nationwide, without restriction to the state or region of the original GNA grantee. Under the GNA framework, the national grid operates as a unified system, allowing entities to draw power from any source or supply power to any load center across the country. Given that GNA transfers are currently limited to a 3-year period, these transfers should only utilize the existing margins within the network. However, if the CERC extends the transfer period to, say, 25 years, this would necessitate additional network reinforcement and corresponding bank guarantees to be provided to the CTU. In such cases, the entity acquiring GNA through transfer should be responsible for the necessary BGs and associated charges. Both GNA and GNA RE transfers should be allowed. Since the ISTS waiver is based on power scheduled from a renewable energy (RE) generator, this waiver should also apply to entity 'B' that is responsible for scheduling the RE power.

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3	***Issue No. 3: Dual Connectivity to the Bulk Consumer for the same load capacity*** *i. Whether such grant of GNA to Bulk Consumer through dual connectivity, i.e., for the same load capacity should be allowed or not?* *ii. If such a grant of GNA to Bulk Consumer through dual connectivity is allowed, can it be coupled with the following conditions:* *a. NOC of the STU based on the commitment of bulk consumers to pay the applicable charges of the intra-State network if the applicant is already connected with the intra-State network and seeking GNA through direct connectivity with ISTS?* *b. Commitment of bulk consumer to pay the applicable charges of ISTS if the applicant is already connected with the ISTS and seeking connectivity to the intra-State network.* *c. Should only those Bulk Consumers be granted GNARE from ISTS, which is drawing only RE power through the intra-State network also. Further, after the granting of GNARE, if the user starts drawing non-RE power through the intra-State network, its GNARE may be converted into GNA with a waiver of the ISTS charges as applicable for GNA in terms of the Sharing Regulations, 2020.*	Connectivity to both intra-state and inter-state networks for the same load capacity should be permitted, provided that the applicable transmission charges for the contracted capacity reserved in each respective network are paid. This should hold true regardless of the actual extent of usage of either network.
3	***Issue No. 5: Utilisation of the Connectivity granted to a subsidiary by another subsidiary of the same Parent company.*** *Whether such utilisation of Connectivity among the different subsidiaries of the same Parent company should be allowed or not?*	This is an essential provision that should be incorporated into the GNA Regulations. Currently, Regulation 15.1 allows the utilization of connectivity granted to a parent company by its subsidiary, and vice versa, prior to the COD of the project. It is recommended that this flexibility be extended to permit the utilization of connectivity among various subsidiaries under the same parent company.

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		Additionally, Regulation 15.3 provides for the transfer of connectivity post-COD of the REGS project to any entity that acquires 51% or more shareholding of the company, subsidiary, or affiliate that owns the REGS project. It is proposed that the transfer of connectivity should be allowed not only between a parent and its subsidiary or vice versa, but also among subsidiaries of the same parent company. For any entity that is not affiliated with the parent company and acquires a 51% stake in the REGS, the transfer should only be allowed post-COD, as currently provided under Regulation 15.3. Further, the provisions of Regulation 15 should also include connectivity granted to a renewable power park developer as well. Thus, connectivity transfer and utilization of connectivity by subsidiaries under the same parent company be allowed even in the case of RPPDs. It would not only bring parity in the connectivity routes but also shall bring in flexibility in development of RPPD infrastructure and utilization.
4	***Issue No. 6: Platform for providing NOC by the STU in a time-bound and a transparent manner*** *Whether such a centralized online platform is required to be implemented for processing the application for grant of NOC by the STU in terms of availability of transmission capacity in the intra-State network?*	A centralized online platform for processing NOC applications from State Transmission Utilities (STUs) is indeed crucial, particularly for assessing the availability of transmission capacity in the intra-state network. Such a platform would greatly enhance transparency and accountability throughout the application process. This centralized portal should also support the processing of NOC applications from DISCOMs (or SLDCs) as mandated under various SERC regulations. For bulk consumers connected to the grid at 11 kV or 220 kV, who require both STU and DISCOM NOCs to access open access under the GNA Regulations, the portal would streamline the processing of these approvals.

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		The Ministry of Power, in its letter no. 25-10/30/2024-PG dated 18.09.2024, has directed all states to integrate the NOC issuance procedure for GNA applicants with their state single window systems, which should subsequently connect to the National Single Window System. Therefore, developing a centralized portal aligned with this directive is imperative. Furthermore, approvals from STUs and DISCOMs should be granted within 15 days of submission of the NOC application, as stipulated under the Green Energy Open Access Rules, 2022. If this timeline is not met, the system should automatically grant deemed approval to ensure timely processing and support the broader goals of open access and green energy facilitation.
5	***Issue No. 7: Provision for grant of Solar hours Connectivity and Non-Solar hours Connectivity through the same Transmission system*** *Should existing solar generators (without storage) also be given the option to install storage for utilisation of connectivity/ GNA during non-solar hours by submitting an application to CTUIL within three months and installing within a period of 24 months, failing which connectivity/GNA during non-solar hours shall be utilised to grant another connectivity through the same transmission system as 'non-solar hour connectivity' to another applicant, based on the other RE resources or Storage plant, for injection of power during non-solar hours?.*	The introduction of the concept of non-solar connectivity is a welcome and innovative step towards achieving the stated regulatory objectives. However, the following concerns should be addressed before finalizing this framework: **i. Application Submission Timeline:** The requirement to submit applications within 3 months lacks clarity on when this period begins. It is recommended that existing solar generators be provided with a minimum of 6 months from the date of notification of these regulations. After this 6-month window, new applicants seeking non-solar hour connectivity may be granted priority. However, existing solar generators should still be permitted to apply for non-solar connectivity post this period, with the allocation being determined based on a timestamp mechanism. **ii. Power Drawn During Non-Solar Hours:**

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		Solar plants draw power from the grid during non-solar hours (e.g., late evening or night) for auxiliary purposes, which is currently billed at DSM rates. If a Battery Energy Storage System (BESS) with non-solar hour connectivity is injecting power during these hours, there is ambiguity regarding how solar plants will meet their auxiliary power needs and at what rates. During solar hours, co-located BESS units will require charging. This can be facilitated by: Using excess generation from the incumbent solar plant. Setting up a dedicated solar facility exclusively for BESS charging, with no grid injection. Purchasing charging power from third parties. If a dedicated solar plant is used solely for BESS charging with no grid injection, energy accounting would be internal and straightforward, eliminating the need for regional energy accounting. However, if power is sourced from third parties or the incumbent solar plant, the energy accounting at the Point of Injection (POI) for simultaneous injection and drawl needs to be clearly addressed. This may require special metering and net scheduling approvals, which the Hon'ble CERC should clarify to prevent disputes during both solar and non-solar hours. **iii. Cost Sharing of DTL and Terminal Bays:** The cost-sharing arrangements for using dedicated transmission lines (DTL) and terminal bays by co-located BESS with solar generators should be based on benchmark costs approved by the Hon'ble Commission, using standards set by PGCIL. Regulatory oversight is essential to define the commercial terms, rights, and obligations associated with this shared infrastructure, reducing the potential for disputes and litigation. **iv. CONN-TD Revision:** The addition of BESS will alter the technical specifications required under the existing CONN-4 framework, necessitating fresh

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		approvals from the CTU along with associated investments. The regulations should mandate that any investments required to meet these revised technical needs be borne by the incoming BESS entity. Additionally, if connectivity is shared between two different entities, the Bank Guarantees (Con BG 1, 2, 3) and infrastructure sharing costs should be allocated proportionally. **v. Protection of Solar Generator Rights During Solar Hours:** The incumbent solar generator must have an exclusive statutory right to inject power into the grid during solar hours. While a BESS can inject or draw power at any time within a 24-hour period using the shared DTL and bays, the first right to utilize connectivity and schedule power during solar hours should always rest with the incumbent solar generator. **vi. Determining the Size of the BESS:** Ideally, the maximum size of the BESS should be limited to the solar capacity for which connectivity has been granted. However, this may not always align with the technical capacity of the infrastructure. For instance, a 220 kV DTL and bay could handle up to 350 MW or more, depending on the conductor used (potentially up to 400 MW), and subject to evacuation margins at the bay and grid substation. It is recommended that the regulations clearly specify the maximum allowable BESS size. Additionally, clarification is needed on whether applications for non-solar connectivity will be made under Regulation 5.2 of the GNA regulations, which has a minimum capacity requirement of 5 MW. If this is the case, the BESS capacity would be capped by the solar connectivity already granted.

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6	***Issue No. 8: Provision for Minimum Transmission Capacity Utilisation for Hybrid ISTS Connectivity*** An applicant should take Connectivity for a quantum that it wishes to utilise. It is proposed that to ensure the optimal utilization of the transmission system, a minimum annual capacity utilization, i.e., 50%, for RHGS may be mandated, failing which the underutilized capacity of the Connectivity may be reduced, effective 1st October 2026. Alternatively, the quantum of Connectivity equal to the average of maximum injection in any time block of a day over the year (first year after the declaration of COD) may be allowed to be retained by the Connectivity grantee, and the balance quantum of the part of the Connectivity may be revoked (with corresponding Conn-BGs to be returned). Connectivity on such vacated capacity may be granted to other entities.	Tenders issued by Renewable Energy Implementing Agencies (REIAs) and DISCOMs typically specify a minimum Capacity Utilization Factor (CUF) that must be achieved by Renewable Hybrid Generation Systems (RHGS). However, imposing a regulatory minimum annual CUF may not be commercially feasible for RHGS grantees due to specific stipulations in utility tenders and Corporate & Industrial (C&I) Power Purchase Agreements (PPAs), which often include defined CUF ranges, limits on CUF variation, and prescribed ratios for the mix of wind and solar components. Moreover, RHGS projects can either be co-located or non-co-located. In the case of non-co-located systems, where connectivity points are at separate substations, power is still scheduled under a single contract but with individual schedules for each component. Here, the overall utilization is constrained by the maximum CUF of either the solar or wind component individually, and any curtailment would negatively impact project economics. Therefore, it is recommended that CUF requirements be driven by the contractual agreements between parties rather than mandated through overarching regulations. This approach would provide the necessary flexibility to accommodate project-specific needs and optimize commercial viability.
7	***Suggestion with regards to Renewable Power Park Developer (RPPD)*** • As per existing clause 11.A (iv), In case of Applicants which have been granted Connectivity under Land/Land BG route but are subsequently covered under LoA route the requirement of furnishing the documents in accordance with Clauses (1) to (3) (i.e. Land Document, FC etc) shall be the same as applicable to the	The existing clause is only applicable to REGS (other than Hydro generating station) or ESS (excluding Pumped Storage Plant (PSP)) who have applied for grant of connectivity under Clause (xi)(b) or Clause (xi)(c) of Regulation 5.8 and has been issued final grant of Connectivity. GNA draft 3rd amendment provision does not cover the cases of **REGS** or ESS who have utilised connectivity granted to Renewable Power Park Developer (RPPD).

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	entities covered under land route. This clause should be applicable for **RPPD** as well and to be modified as
	
	As per draft GNA 3rd amendment "Entity which secured on connectivity on Land/ Land BG route and received Final Grant of Connectivity is issued LoA/ enters PPA would be eligible for conversion of route to LoA/PPA route for part or full capacity may apply to CTU for such conversion based on following conditions
	• *If LOA or PPA is for a RE sources (with or without storage) other than the RE source(s) (with or without storage) provided in the Connectivity application applied under Land/ Land BG route, such an entity shall be required to first get approval of change of configuration from CTU prior to seeking conversion*
	• *Where part capacity is converted*
	  • *CTU shall issue revised connectivity intimation for each part, treating each part as separate connectivity*
	  • *Entity shall submit separate Conn-BG1 for each part*
	  • *Conn-BG2 and Conn-BG3 shall be revised and re-submitted for each part calculated on pro rata-basis based on the quantum*
	  • *Min. conversion capacity to be 50 MW*
	• *After conversion has been approved by the CTU the requirement of furnishing the documents towards such converted Connectivity, in*
		The logic of this new draft provision should also be extended to the RPPD who have applied for grant of connectivity under Clause (vii), (a) & (b) or Clause (vii), (a) & (c) of Regulation 5.8 and has been issued final grant of Connectivity for further utilization by the REGS or ESS. If the REGS which has executed agreement with RPPD is having a LOA/PPA, then the RPPD should be allowed the benefit of this clause.
		
		1. **Uniform Treatment**: If a REGS has entered into an agreement with an RPPD and possesses a valid Letter of Award (LOA) or Power Purchase Agreement (PPA), the RPPD should also be eligible for the benefits of this clause. Extending the clause to RPPDs would ensure consistency in how connectivity benefits are applied, especially since REGS utilizing connectivity through an RPPD are effectively in the same position as standalone REGS that have applied independently.
		2. **Level Playing Field**: There should be uniformity in the application of regulatory provisions to ensure that generation projects located within a Renewable Energy Park (RE Park) are on equal footing with standalone generation projects. This would avoid any discrimination based on the structure of the project, ensuring fair treatment across the sector.
		3. **Facilitating Hybrid and Integrated Projects**: Many RPPDs are developing large-scale RE Parks that integrate various RE sources and ESS. Allowing them to benefit from the connectivity provisions under Regulation 5.8 would encourage the development of more integrated and efficient renewable energy projects, aligning with broader policy objectives of

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	accordance with Clauses (1) to (2) of this Regulation, shall be the same as applicable to the entities covered under LoA/PPA route with the condition that SOCD shall be the start date of Connectivity. • *Submission of Land Documents within 18 (from In-principle grant) or 12 months (from Final grant)* • *Demonstrate FC 6 months prior to Start date of Connectivity*	maximizing RE integration into the grid. **Recommendation:** The draft amendment should explicitly include **RPPDs** who have applied for connectivity under the relevant clauses of Regulation 5.8. This extension would provide clarity and ensure that REGS and ESS units, whether operating within RE Parks or as standalone entities, are treated equitably under the connectivity framework. This approach will promote a level playing field and foster the growth of integrated renewable energy projects.