Objective of the Amendment

- **Fourth Amendment** to the CERC **(Connectivity and General Network Access)** Regulations, 2025 introduces several new provisions, particularly around **restricted access**, **scheduling rights, and transmission system usage,** which could impact competition among Renewable Energy (RE) developers.

Presented by

Independent Power Producers Association of India.

CERC (Amendments: 1/5)

Impact:

- This **disadvantages** solar and hybrid RE projects by **limiting** their ability to **inject power** during **non-solar** hours **unless** they have an **energy storage system (ESS) or a wind component.**
- **Restricts** the ability of **solar** projects to participate fully in the market, potentially **reducing investor confidence**.
- Creates an **artificial hierarchy among RE** developers, giving **priority** to **hybrid projects** over standalone solar generators.

Alternate Recommendations:

Instead of restricting access, CERC could implement a **flexible scheduling mechanism** that allows solar RE generators to trade or shift their generation schedules dynamically **based on real-time grid demand.**

Amendments:

- **2.1: Definition: Regulation 2.1**—key terms used in the entire regulation, like "applicant," "connectivity," "GNA," etc.
  - A new Clause (q-i) shall be inserted after Clause (q) of Regulation 2.1 of the Principal Regulations as under:
    - "(q-i)" Entities with Restricted Access" means REGS or ESS whose injection scheduling rights are restricted for solar hours or non-solar hours in accordance with Regulation 5.11 and Annexure-IV of these regulations;"
  - A new Clause (ai-i) shall be inserted after Clause (ai) of Regulation 2.1 of the Principal Regulations as under:
    - "(ai-i)" Restricted Access" means restricted scheduling rights for solar hours or non-solar hours of the day for entities covered under Regulation 5.11 of these Regulations;"
  - New Clauses, namely, Clause (ak-i), Clause (ak-ii) shall be added after Clause (ak) of Regulation 2.1 of the Principal Regulations as under: :
    - (ak-i) "Solar hours" means the time blocks of the day as declared by NLDC on each Saturday for the subsequent week starting from Monday to Sunday every week for each State based on anticipated solar insolation;
    - (ak-ii) "Non-Solar hours" means the time blocks other than 'Solar hours' of the same day;

Note:

- *Regulation: (5.11):* introduces the concept of **"Entities with Restricted Access"** to the inter-State grid.
- *Annexure-IV – Technical Framework for Restricted Access*

Questions/ recommendations

#	Questions	Recommendations
1	Could restricted access disincentivize states from pursuing aggressive RE deployment targets, particularly standalone solar or wind, and how might this affect their RE integration goals (RPO and GNA)?	• States should advocate for flexibility in restricted access to support aggressive RE targets. • RE developers should seek exemptions to avoid curtailment risks impacting project viability.
2	How will the centralized declaration of “solar hours” by NLDC align with the autonomy of states in grid operations and planning, and what mechanisms will be in place for states to appeal or review these declarations?	• States should demand robust appeal mechanisms for NLDC-declared solar hours. • NLDCs should publish detailed methodologies for declaring solar hours transparently. • Emphasize collaboration in determining “solar hours” to reflect local realities
3	How will SLDCs coordinate with the NLDC for implementing weekly solar hour declarations, and will there be automation tools or guidelines provided to handle the increased complexity in scheduling and dispatch?	• Seek protocols for real-time response to weather and demand changes. • Provide regular training for SLDC personnel for smooth coordination.
4	What is the exact process or criteria to classify a generator as having "Restricted Access," and how will these restrictions affect the bankability and financing of future RE-only projects?	• Define transparent criteria for "Restricted Access"; compensate for lost generation potential. • Provide long-term visibility on potential restricted zones for informed investment decisions.
5	How will these scheduling restrictions affect market participation, especially in DAM, RTM, and other short-term markets, and is there a need to redesign market time blocks or trading algorithms to accommodate “Restricted Access” entities?	• Recommend enabling virtual PPAs and green markets for unused RE capacity. • Demand fair access to short-term markets despite injection limits. • Suggest adapting trading systems for time-restricted generators.
6	How will the restricted scheduling windows be reflected in project cash flow models, credit ratings, and risk analysis, and is there regulatory clarity on how financing institutions should treat projects with restricted access in terms of viability and exposure limits?	• Recommending advance mapping of restricted zones for better risk assessment. • Propose flexibility in PPAs if RE supply is curtailed due to regulatory changes.

CERC (Amendments: 2/5)

Impact:

- **Imposes stringent conditions** on RE developers seeking additional capacity:
  - Mandatory submission of Connectivity Bank Guarantees (Conn-BG1 & Conn-BG3), which increases the financial burden burdens on RE developers, disproportionately affecting smaller players.
  - Declaration of Scheduled Commercial Operation Date (SCOD).Strict timelines for RE/ESS (non-PSP) projects: SCOD within 18 months.
- Transitional compliance for entities already granted approval before this amendment.

Alternate Recommendations:

- Provide a more flexible timeframe for COD (e.g., 24-30 months) based on project scale and location constraints.
- Offer staggered financial guarantees instead of lump-sum Conn-BG requirements.

New Regulation 5.2a

A new Regulation, namely Regulation 5.2a. shall be added after Regulation 5.2 of the Principal Regulations, as under:

– (5.2 a The additional generation capacity under Regulation 5.2 of these regulations shall be subject to the following conditions:

(a) Connectivity Bank Guarantee Conn-BG1 and Conn-BG3 under Regulation 8 of these regulations shall be furnished by the existing grantee for such additional generation capacity;

(b) The existing grantee shall intimate the scheduled date of commercial operation for such additional capacity;

(c) In case additional capacity for which approval is sought under Regulation 5.2 of these regulations is REGS (with or without ESS) or ESS (except PSP), the scheduled date of commercial operation for such additional capacity shall not be later than 18 months from date of approval by the Nodal Agency;

(d) The applicant shall furnish documents required under Regulation 5.8.(xi) of these Regulations, as applicable, for such additional capacity, and shall also be subject to other Regulations including Regulation 11A, 11B, 24, 24.6 of these Regulations.

(e) The entity which has already made an application or has been granted approval by the Nodal Agency under Regulation 5.2 of these Regulations prior to the date of effectiveness of these amendments, shall furnish the scheduled date of commercial operation for such additional capacity, within a period of two weeks from effectiveness of these regulations:

- Provided that, in case such additional generation capacity is REGS (with or without ESS) or ESS (other than PSP), the scheduled date of commercial operation for such additional capacity shall not be later than 18 months from the date of effectiveness of these amendments or date of approval by the Nodal Agency, whichever is later.
- Provided also that such additional generation capacity shall also comply with Clauses (a) to (d) of this Regulation, within a period of one month from the date of effectiveness of this Regulation, failing which approval for such additional generation capacity shall be revoked."

- ***Note:***
- *Regulation 5.2*: allows a generating station or ESS to add extra capacity (its own or another entity's) within its granted Connectivity, with prior CTU approval.

CERC (Amendments: 3/5)

Impact:

- **Increased compliance burden** – Developers need clearer project timelines and data.
- **Possible connectivity delays** – Uncertainty in COD can delay final connectivity.
- **More scrutiny for new players** – Start-ups/SPVs may face tougher evaluation.
- **Encourages structured developers** – Favors well-organized, financially sound entities.
- The 18-month timeline for SCOD is too restrictive for RE/ESS projects considering common delays in land acquisition, policy clearances, and EPC schedules and most importantly evacuation facility.

Amendment to Regulation 5.8

A new sub-clause (d) shall be inserted after sub-clause (c) of Clause(vii) of Regulation 5.8 of the Principal Regulations as under:

(d) The Renewable Power Park Developer shall furnish the scheduled date of commercial operation of the generating station under the Park prior to grant of final connectivity.;

A new Clause(xii) shall be inserted after Clause (xi) of Regulation 5.8 of the Principal Regulations as under:

(xii) The details of promoters and their shareholding pattern in the Company.

Questions/ recommendations

#	Questions	Recommendations
1	How will the market handle uncertainty from potential CoD revocations, and will a public database track projects nearing deadlines to better assess future supply risks?	• Introduce a public database to track projects nearing CoD deadlines, enabling better assessment of future supply risks. • Mandate contingency plans for potential CoD revocations to minimize market disruptions.
2	What specific PPA amendments are needed for DISCOMs to comply with these regulations, and how will DISCOMs manage power supply gaps if RE capacity is revoked due to delays?	• Amend PPAs to include provisions for alternative power procurement in case of RE capacity revocation due to delays. • Enable DISCOMs to access short-term markets or reserve capacity mechanisms to manage power supply gaps effectively.
3	What recourse do developers have if CoD is missed due to external factors like force majeure, and is there any flexibility for SCOD revisions due to uncontrollable project timeline shifts?	• Allow CoD revisions under force majeure conditions, supported by transparent documentation and regulatory approval. • Develop a framework for dispute resolution and compensation for developers facing uncontrollable delays.
4	How can smaller entities meet BG requirements, and will promoter/shareholding disclosures be public, especially regarding equity ownership changes?	• Provide flexibility in BG requirements for smaller entities, such as staggered payments or pooled guarantees. • Ensure promoter/shareholding disclosures are publicly accessible to enhance transparency in equity ownership changes.
5	What happens to transmission infrastructure investments if projects fail to meet CoD, and can transmission rights be reallocated in such cases?	• Reallocate transmission rights if projects fail CoD, ensuring optimal utilization of existing infrastructure. • Implement financial safeguards to recover investments in transmission infrastructure from defaulting developers.
6	How will central authorities ensure state RE deployment plans aren't negatively affected by the new regulations, and is there a plan to harmonize these regulations with existing state policies?	• Establish a central-state coordination mechanism to align RE deployment plans with new regulations. • Harmonize central regulations with state policies by creating a unified framework that addresses regional variations.

CERC (Amendments: 4/5)

Impact:

- Grid Curtailment Risks for Solar-Heavy RE Developers.
- Small solar projects (e.g., rooftop solar, C&I-scale projects) may be excluded from grid access.
- Could lead to forced curtailment of solar generation, reducing financial viability.
- Penalizes solar-heavy projects, which are already at a disadvantage in the scheduling hierarchy.
- Wind/ESS-based REGS may apply for connectivity with restricted access (non-solar hours) using shared or dedicated infrastructure.
- Existing solar/RHGS-based REGS will be converted to restricted access post a 3-month transition window, if criteria are met.
- Restricted access applies only if available non-solar connectivity ≥ 50 MW.

Alternate Recommendations:

Allow all RE projects above 10 MW to qualify for restricted access, instead of the arbitrary 50 MW threshold.

New Regulation 5.11

A new Regulation 5.11 shall be added after Regulation 5.10 of the Principal Regulations, as under:

"5.11 Entities with Restricted Access

(a) An REGS (with or without ESS) based on Wind source or ESS may seek Connectivity with restricted access (non-solar hours) at a terminal bay of an ISTS substation:

(i)Through a separate dedicated transmission system, or

(ii)Which is already allocated to another REGS or Renewable Power Park, with restricted access (solar hours),

(b) The In principle or final grant of Connectivity intimated to an REGS (with or without ESS) based on solar source or an RHGS with a combination of solar source with another source including ESS (including cases where GNA is effective) shall be converted as an entity with restricted access (corresponding to non-solar capacity during non-solar hours) within a period of one week after the expiry of three months from date of effectiveness of this Regulation:

(c) REGS (with or without ESS) based on a solar source or an RHGS with a combination of solar source with another source, including ESS seeking Connectivity under Regulation 4.1 of these regulations, shall be considered for grant of Connectivity as an entity with restricted access:

Provided that if the quantum of Connectivity that can be made available for non-solar hours is less than 50 MW, such REGS or RHS shall not be considered as an entity with restricted access.

(d) The Detailed modalities for entities with restricted access shall be as per Annexure-IV of these Regulations.

Questions/ recommendations

#	Questions	Recommendations
1	Does this amendment incentivize storage and hybrid projects effectively, or does it disproportionately penalize solar-only initiatives, potentially distorting market competition?	• Introduce balanced incentives for storage and hybrid projects while ensuring solar-only initiatives are not disproportionately penalized to maintain fair market competition. • Expand REC multipliers for hybrid systems to promote technology integration without distorting pricing mechanisms
2	How will RLDCs/SLDCs manage the scheduling of entities with restricted access, particularly during grid congestion or significant ramping events, ensuring system stability?	• Develop advanced grid management tools for RLDCs/SLDCs to handle restricted access scheduling during congestion or ramping events. • Establish clear protocols for prioritizing system stability during peak load conditions.
3	How will market participation be structured for restricted entities, and will this create inefficiencies or pricing volatility in specific time blocks within DAM, RTM, or GTAM?	• Create transparent frameworks for restricted entities in DAM, RTM, and GTAM markets to prevent inefficiencies or pricing volatility. • Ensure equitable market access by setting caps on price fluctuations within specific time blocks
4	What framework exists for the recovery of costs when multiple RE generators share the same bay or infrastructure under this restricted access model, ensuring fair compensation?	• Implement cost-sharing models among RE generators using shared infrastructure, ensuring fair compensation mechanisms. • Mandate periodic audits to avoid disputes over shared bay or transmission costs
5	Will restricted access cause challenges in demand forecasting and power procurement, especially when peak demand overlaps with restricted injection windows, and how will DISCOMs adapt their PPAs?	• Require DISCOMs to revise PPAs with flexible clauses addressing restricted injection windows and peak demand overlaps. • Enhance forecasting tools to account for restricted access impacts on demand-supply dynamics.
6	Will partial access affect system security and the visibility of committed generation, particularly during peak hours, and what new technical interfaces will be required to manage restricted hours scheduling?	• Introduce new technical interfaces for real-time visibility of committed generation during restricted hours scheduling. • Strengthen system security protocols to mitigate risks associated with partial access during peak hours

CERC (Amendments: 5/5)

Impact:

- Stricter shareholding regulations may lead to loss of control and increased compliance costs, impacting project viability and investor confidence.
- Failure to meet the (CoD) can result in connectivity revocation, affecting project timelines and financials.
- Restricted operational flexibility during solar hours limits their ability to maximize output and adds administrative burdens due to shared transmission agreements.
- Increased regulatory oversight and potential disputes over compliance and cost-sharing add complexity and resource demands.

Alternate Recommendations:

CERC should enhance regulatory transparency and flexibility by simplifying compliance, offering adaptable renewable project timelines, and fostering open access. Regular stakeholder engagement and clear cost-sharing guidelines will promote a conducive environment for sustainable growth. These changes will benefit all stakeholders by encouraging investment, innovation, and efficiency in the electricity sector.

Amendments

Amendment to Regulation 11A

– **Clause (6): Changes in shareholding patterns of Connectivity grantees until the Commercial Operation Date (CoD) are subject to specific conditions:**

- Promoters cannot cede control (ownership of more than 50% of voting shares).
- If multiple promoters exist without any holding more than 50%, the shareholding pattern must be maintained.
- Other changes require prior approval from the nodal agency and must be filed with the commission within 45 days.
- Non-compliance may result in revocation of Connectivity and encashment of Bank Guarantees.

Amendment to Regulation 19.2

– Additional GNA (General Network Access) quantum added in each of the next three financial years will be applicable from specified dates, with a maximum of four dates per year.

Amendment to Regulation 24.6

– Connectivity for Renewable Power Park developers will be revoked if the generating station fails to achieve CoD on time.

New Annexure-IV

– **Modalities for Restricted Access:**

- Entities under Regulation 5.11(a) get restricted access during solar hours but full access during non-solar hours.
- Entities under Regulation 5.11(b) or (c) have shared access during solar hours and limited access during non-solar hours.
- Agreements can be made for shared transmission systems, with cost-sharing based on indicative capital costs.

Questions/ recommendations

#	Questions	Recommendations
1	Should state-sponsored entities receive differentiated treatment, especially considering potential shifts in board control, and could GNA application date restrictions limit DISCOMs' flexibility in dynamic capacity planning?	• Allow differentiated treatment for state-sponsored entities while ensuring transparency in board control changes to avoid misuse. • Relax GNA application date restrictions for DISCOMs to enable dynamic capacity planning aligned with demand shifts.
2	How does the restriction on shareholding impact SLDC/RLDC's visibility into ownership and operational accountability, and how will revocation of RE Park connectivity be communicated to prevent uncoordinated injection attempts?	• Ensure shareholding restrictions do not compromise operational accountability or visibility into ownership. • Mandate timely communication of RE Park connectivity revocations to prevent uncoordinated injection attempts into the grid.
3	How will CTUs manage potentially stranded assets due to project connectivity loss, and should shareholding restrictions be relaxed for transmission-only SPVs or BOOT projects?	• Develop mechanisms to repurpose stranded assets caused by connectivity loss, such as reallocating transmission capacity. • Relax shareholding restrictions for transmission-only SPVs or BOOT projects to encourage private investment.
4	Will shareholding restrictions deter investment from equity funds or strategic partners needed for timely project completion, and could connectivity revocation be based on milestones rather than strict CoD deadlines?	• Introduce milestone-based connectivity revocation instead of strict CoD deadlines to accommodate project delays. • Reassess shareholding restrictions to attract equity funds and strategic partners critical for timely project completion.
5	If a project's connectivity is revoked, how will DISCOMs manage existing PPAs or RTC commitments, ensuring continued power supply?	• Provide guidelines for DISCOMs to renegotiate PPAs or RTC commitments in case of connectivity revocation, ensuring uninterrupted power supply. • Enable access to short-term markets or reserve capacity mechanisms to mitigate supply disruptions.
6	Do restrictions on control transfer impede the entry of aggregators and traders, and how might GNA application windows affect supply diversity and volume in power markets, potentially impacting listed projects?	• Review control transfer restrictions to facilitate entry of aggregators and traders, enhancing market diversity. • Expand GNA application windows to ensure adequate supply diversity and prevent market inefficiencies impacting listed projects.