Ref: PXIL/S&R/21102026/1 Date: 21st October 2026

To
The Secretary
Central Electricity Regulatory Commission
World Trade Centre, 7th floor, Tower-B
Nauroji Nagar
New Delhi - 110029

Sub: Draft Amendment issued by Hon'ble Commission titled – *'Central Electricity Regulatory Commission (Indian Electricity Grid Code) (Second Amendment) Regulations, 2026'* – Observations, comments and suggestions from Power Exchange India Limited.

Ref: Public Notice No L-1/265/2022/CERC dated 21.09.2026

Dear Sir,

The Electricity Act 2003 mandates the Commission to develop a framework that provides for guidelines and standards to be followed by market participants in the system to plan, develop, maintain and operate the power systems, in the most secure, reliable, economic and efficient manner.

The Hon'ble Commission notified the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2023 ("IEGC Regulations") with effect from 1st October 2023. IEGC is an organised rulebook that enables India's electricity grid to operate as modern, renewable-ready, digitally secure and economically optimised power system.

To address the evolving requirements of electricity grid operations, the 2nd Amendment focuses on enhancing grid reliability, integrating energy storage systems, improving congestion management, reforming scheduling mechanisms, and strengthening payment discipline.

In the spirit of the Public Notice issued by the Hon'ble Commission, PXIL is pleased to submit following observations for the kind consideration of the Hon'ble Commission.

Thanking You,

Yours faithfully,

For **Power Exchange India Limited**

ANIL VITTHAL KALE Digitally signed by ANIL VITTHAL KALE
Date: 2026.10.21 11:19:06 +05'30'

Anil V. Kale
Vice President and Head – Strategy and Regulatory

PXIL suggestions and observation on Draft Central Electricity Regulatory Commission (Indian Electricity Grid Code) (Second Amendment) Regulations, 2026

Regulation 49 of the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2026 ('IEGC Regulations') provides for revision of schedules under various circumstances, including bottleneck conditions arising due to power outages or failure of transmission elements, revision requested by GNA grantees, revision initiated by the RLDC in the event of grid disturbance, and revision on account of forced outage of generating units. Further, sub-clause (q)(ii) of Clause (1) of Regulation 49 provides the framework for scheduling of transactions in the Real-Time Market (RTM).

Background

India's power sector is undergoing a significant transformation with the rapid expansion of renewable energy capacity. As of August 2026, India's total installed generation capacity has reached approximately 554 GW, of which around 304 GW is from non-fossil fuel sources.

Installed Capacity (in MW) of the country as on 31.08.2026			
Category		Installed Capacity (MW)	% Share in Total
Fossil Fuel	Coal	2,24,408	40.47%
	Lignite	6,370	1.15%
	Gas	19,144	3.45%
	Diesel	288	0.05%
	Total Fossil Fuel	2,50,210	45.12%
Non-Fossil Fuel	RES (including Hydro)	2,95,554	53.30%
	Hydro (including PSPs)	52,065	9.39%
	Wind, Solar & Other RE	2,43,490	43.91%
	Wind	58,520	10.55%
	Solar	1,68,040	30.30%
	BM Power	10,869	1.96%
	Waste to Energy	878	0.16%
	Small Hydro	5,182	0.93%
	Nuclear	8,780	1.58%
	Total Non-Fossil Fuel	3,04,334	54.88%
	Total Installed Capacity	5,54,544	100.0%

Further, India crossed the milestone of having more than 50% of its installed generation capacity from non-fossil sources in June 2025, thereby achieving its Paris Agreement commitment relating to installed capacity from non-fossil fuel sources ahead of the targeted timeline.

The increasing share of renewable energy, particularly solar and wind generation, has, however, also introduced greater operational complexity for system operators. The inherent variability and intermittency of renewable generation, coupled with increasing variations in demand due to changing load patterns and weather conditions, can result in significant deviations between forecasted and actual generation and demand.

Such variations require system operators to continuously balance supply and demand in real time. In certain situations, these variations may also necessitate curtailment or backing down of renewable generation in the interest of grid security and system stability.

Against this backdrop, the RTM plays an important role by enabling market participants to adjust their power positions closer to the actual delivery period. However, the existing time interval between RTM gate closure, clearing and commencement of delivery can limit the ability of market participants to respond efficiently to sudden changes in generation availability and demand.

The proposed amendment regarding shortening of timelines between schedule revisions and RTM gate closure will facilitate:

i. improve the ability of GNA grantees and generating stations to manage their schedules closer to real time
ii. market participants to respond more quickly to changes in generation and demand
iii. facilitate better utilisation of available transmission capacity
iv. reduce the mismatch between scheduled and actual generation/consumption
v. support more efficient integration of variable renewable energy
vi. improve the effectiveness of real-time balancing; and
vii. potentially reduce the financial impact associated with forecasting errors and imbalance for market participants, including distribution licensees

The proposed framework would therefore represent an important step towards progressively bringing electricity scheduling and market operations closer to real time.

PXIL submits the following clause wise comments / suggestions on the draft regulations.

1. Para 15, Amendment to Regulation 48 the Principal Regulations:

The words "in terms of mutual consent including on sharing of net savings between the generating station and buyer" shall be substituted with the words "with the express consent of the buyer (which may be in form of a standing consent) and in terms of mutual agreement on sharing of net savings between the generating station and the buyer" in sub-clause (f) of Clause (3) of Regulation 48 of the Principal Regulations.

PXIL suggestions:

The proposed change would require a standing consent from the buyer to schedule the power from an alternative source by the generator.

In this regard we humbly request Hon'ble Commission to consider prescribing a standardised format and procedure for furnishing such consent by the buyer, this format should be issued by GRID-India in its procedure. Such standardisation would facilitate uniformity and provide clarity to the Power exchange, generating stations, buyers and system operators regarding the nature, validity and scope of the consent.

Further, there should be requisite provision in NOAR portal and /or WBES portal where the generating entity that intends to engage from an alternate source uploads the relevant consent document in respective portal and once uploaded such consent document may be shared by NOAR/WBES portal with power exchange.

2. Amendment to Regulations 48 and 49 to facilitate shortening of timeline between revisions:

(A) First Phase of implementation:

(1) The words "8th" shall be substituted with words "6th" in the following:

(a)sub-clause (b) of Clause (2) of Regulation 48 of the Principal Regulations;

(b) sub-clause (b) of Clause (3) of Regulation 48 of the Principal Regulations;

(c) sub-clause (b) of Clause (3) of Regulation 49 of the Principal Regulations;

(d) sub-clause (c) of Clause (4) of Regulation 49 of the Principal Regulations;

(e) sub-clause (f) of Clause (5) of Regulation 49 of the Principal Regulations;

(f) first proviso to Clause (7) of Regulation 49 of the Principal Regulations;

(2) The time "22.45" shall be substituted with time "23.00" and time "23.00" shall be substituted with time "23.15" in sub-clause (q)(ii) of Clause (1) of Regulation 49 of the Principal Regulations.

(3) The time "23.15" shall be substituted with time "23.30", occurring multiple times and time "23.00" shall be substituted with time "23.15" in sub-clause (q)(iv) of Clause (1) of Regulation 49 of the Principal Regulations.

(B) Second phase of implementation

(1) The words "7th" shall be substituted with words "5th" in the following:

(a)sub-clause (b) of Clause (2) of Regulation 48 of the Principal Regulations;

(b) sub-clause (b) of Clause (3) of Regulation 48 of the Principal Regulations;

(c) sub-clause (b) of Clause (3) of Regulation 49 of the Principal Regulations;

(d) sub-clause (c) of Clause (4) of Regulation 49 of the Principal Regulations;

(e) sub-clause (f) of Clause (5) of Regulation 49 of the Principal Regulations;

(f) first proviso to Clause (7) of Regulation 49 of the Principal Regulations;

(2) The time "22.45" shall be substituted with time "23.15" and time "23.00" shall be substituted with time "23.20" in sub-clause (q)(ii) of Clause (1) of Regulation 49 of

the Principal Regulations.

(3) The time "23.00" shall be substituted with time "23.20" in sub-clause (q)(iv) of Clause (1) of Regulation 49 of the Principal Regulations.

PXIL suggestions:

The proposed amendment to sub-clause (q)(ii) of Clause (1) of Regulation 49 seeks to reduce the time interval between the RTM clearing session and commencement of the delivery period in two phases.

BIDDING TIMELINE

Bidding Timeline		Delivery Window
Existing as on date	Proposed	
Phase-I Up to 31.03.2027		00:00Hrs. – 00:30Hrs. (Next Day)
22:45Hrs. - 23:00Hrs.	23:00Hrs. – 23:15Hrs.	
Phase-II with effect from 01.04.2027		
22:45Hrs. – 23:00Hrs.	23:15Hrs. – 23:20Hrs.	

The proposed framework would facilitate:

a. **Better integration of renewable energy:**
A shorter RTM timeline would provide market participants with a mechanism to respond closer to actual renewable generation, thereby supporting smoother integration of variable renewable energy into the grid.

b. **Improved forecasting and balancing:**
Greater proximity between market transactions and the delivery period would enable participants to incorporate more recent generation and demand information into their positions, thereby reducing forecasting uncertainty.

c. **Enhanced grid balancing:**
More frequent and closer-to-real-time adjustment of positions would strengthen the ability of market participants and system operators to manage short-term supply-demand imbalances.

d. **Reduced financial exposure:**
Improved forecasting and closer-to-real-time procurement may reduce the financial exposure of market participants arising from deviations between their scheduled and actual positions.

e. **Efficient market operation:**
The proposed changes would further strengthen the role of the RTM as a balancing

mechanism and bring organised electricity markets progressively closer to real-time system conditions.

Additional Observation:

3. **Timeline for RTM matching from 01.04.2026**

   In existing clearing and scheduling of RTM the timeline for exchange of bid information and transmission capacity is as under:

Activity	Performing entity	Time (in minutes)	End time (in minutes) (after end of auction session)
Power exchange to determine provisional solution and submit transmission capacity request to NLDC	Power Exchange	5	5
Transmission availability information shared by NLDC to Power Exchange	NLDC	3	8
Final Matching and submission trade result to NLDC, schedule to SLDC and Members	Power Exchange	7	15

   With reduction in timeline for clearing and scheduling from existing 15 minutes to proposed 10 minutes, it is humbly requested that revised timeline for different activities should be notified.

4. **Mock testing prior to roll-out of Phase-2**

   It is humbly requested that adequate time of 6 to 8 weeks should be provided for mock testing prior to roll-out of Phase-2

PXIL welcomes the proposed reduction in the RTM timeline, aligning the RTM closer to the actual delivery period will enable market participants to respond more effectively to unforeseen variations in renewable energy generation, demand patterns, and system conditions. This change assumes greater significance given the increasing share of variable renewable energy in the Indian power system and would contribute towards more efficient balancing and grid operations.
