Prayas (Energy Group)'s Comments and suggestions on CERC Staff Paper on "Shortening the scheduling Timeline for Real Time Markets in India"

Prayas (Energy Group) 28th May, 2026

CERC has issued a discussion paper on "Shortening the scheduling Timeline for Real Time Markets in India" on 6th May, 2026 and invited comments and suggestions from stakeholders till 28th May, 2026.

To set the context, the Commission, while introducing the Real Time Market, had mentioned that with a requisite level of automation, the timeline for the Real Time Market and the 'Revision of Schedule' can be shortened further. The paper has mentioned that few automations like National Open Access Registry (NOAR) and other technological advancement have enabled regular, timely exchange between power exchanges and system operators. Hence, the paper proposes to reduce the timeline between the end of 'Revision of Schedule 'and actual delivery of power from the existing 75 minutes to 50 minutes. The proposal can be summarized as follows:

Process Phase / Activity	**Existing Timeline**	**Proposed Timeline**
End of 'Revision in Schedule'	**T-75 minutes** before delivery	**T-50 minutes** before delivery
Bidding Window for RTM (Processing schedule revisions, T-GNA applications, and placing RTM and RTM-AS bids)	Block X-5: **T-75 to T-60** (15 minutes)	Block X-4: **T-50 to T-45** (5 minutes)
RTM Clearing (Matching buy/sell bids, verifying ATC margins, checking congestion, and trade acceptance)	Block X-4: **T-60 to T-45** (15 minutes)	Block X-3: **T-45 to T-30** (15 minutes)
SCUC & SCED Optimization (Scheduling RTM trades, discovering MCV and MCP, running SCUC followed by SCED)	Block X-3: **T-45 to T-30** (15 minutes)	Block X-2: **T-30 to T-15** (Merged into a single 15-minute window
TRAS Dispatch (Scheduling of SCED and SCUC instruction, Finalizing dispatch requirements and executing sequential dispatch)	Block X-2: **T-30 to T-15** (15 minutes)	
Preparation Time (Incorporating TRAS dispatch into schedules, generator preparation and ramping)	Block X-1: **T-15 to T** (15 minutes)	Block X-1: **T-15 to T** (15 minutes)
Actual Dispatch / Delivery	Block X: **Time = T**	Block X: **Time = T**

We have some suggestions and comments on the staff paper, which are detailed below.

1. Need to clarify changes in timelines given for revising demand and supply schedule

The staff paper has talked about reducing scheduling timeline for RTM, however the reducing RTM timeline should also lead to shortening the timeline for revising schedule for buyers and sellers, as has been envisaged in the staff paper itself. Such revision can lead to following benefits to entities:

- Buyers: This will help the buyers to predict the demand near to time of delivery, resulting into better demand forecasting and lesser deviations from the schedule.
- Generators and ESS: This will help the generators to schedule more closure to the time of delivery, hence, can result into better forecasting and lesser deviation from the schedules.

At present, buyers and generating station (incl. ESS as injecting entities) are allowed to revise their schedule which are effective from either 7th or 8th time block (Regulation 49(4)(c) and 1st proviso of Regulation 49(7) of IEGC 2023). While mentioning the possibility, the staff paper has not suggested expected shortening in the period. It is suggested that **the shortening of schedule for buyers and sellers is finalized based on wide public consultation, as it will have wider ramification for system operation.**

2. Need to understand the impact of reducing the RTM bidding window

The staff paper suggests to reduce the RTM bidding window from the existing 15 minutes to 5 minutes. Further, it is proposed to merge various optimization avenues- RTM bid clearance, AS price discovery, running real time SCED and SCUC and scheduling SCED and SCUC instructions, finalizing dispatch schedules) within 15 minutes, for which 30 minutes were available earlier. There is a need to determine its impact on DISCOMs and how it will work out along with existing operational complexities and proposal of market coupling.

a) Impact on DISCOM

As electricity volume (MUs) cleared in RTM are more than that in DAM, RTM has gained prominence and are becoming significant for DISCOM for their short-term procurement strategy. However, reducing bidding window for RTM from 15 minutes to 5 minutes has potential to disrupt this, especially when the DISCOMs are not sufficiently equipped to place bids within a five-minute window to meet all their requirements. Processes for automation of bid placements by power exchanges will be required to aid DISCOMs. Hence, it is suggested that **the revised timelines come into effect only after 6 months post the notification of the regulations such that DISCOMs have sufficient time to adopt to revised shorter bidding window and power exchanges can conduct training/ pilot runs in the interim.**

b) Need to consider this with existing operational complexities and proposal of market coupling

With present clearing algorithms, IEX has been reporting some instances of time-blocks where no volumes have been cleared, which can be possible due to various reasons including issues with market clearing algorithms and failure of communication. This is in line with the provision contained by NLDC Operating procedure 2025[1], which stipulates that in case of extreme circumstances, incl. failure of communication, the schedule of an RTM session shall be made zero.

As other exchanges are not providing data in such granularity (on buy, sell and cleared volume), we are not sure of any such instances in other exchanges. The risk of such instances increasing over time needs to be understood and mitigated, especially before introducing shorter clearing timelines.

[1] *14.2.13. Under extreme circumstances, including but not limited to failure of communication and/or any such other reason e.g. data transfer failure, if the final cleared trades are not received by NLDC for scheduling through RLDCs or if the information regarding transmission margin is not received by power exchanges(s) then, the schedules for such RTM session(s) shall be made zero (0) and power exchange(s) shall settle accordingly.*

Another operational challenge is with regard to the possibility of various bid orders present in RTM and I-DAM. For welfare maximization, there could be multiple iterative runs of the clearing algorithm and various post-clearing processing particularly for vertical overlaps, clearing block/ Minimum quantity/ profile bids and managing transmission corridor margins. As per the Grid India report on implementation of market coupling, published in Jan 2025, between 2022-24, the engine run time for IEX exceeded 120 seconds (i.e., 2 minutes) in three instances. In fact, with shadow coupling of all three exchanges, the engine run time estimated by Grid India also increased, given the increase in number of block bids. Going forward, with increase in simultaneous load as well as more complex bid orders being utilized by market participants, ways and means to optimize engine run time is necessary.

With proposal of market coupling, the risk of non-communication as well as longer engine run times could increase and therefore, **any reduction in RTM clearing timelines should be considered only after adequate measures are taken to mitigate these risks**.

c) **Shortening window for optimization avenues**

The proposal to reduce the time window for optimization avenues from 30 minutes to 15 minutes need consideration. While they will be done sequentially, any anomalies in any one step (incl. communication of same with other entities) can be very risky for grid operation and stability. Hence, there is a **need to have some buffer for such optimization runs and schedule finalization steps**. However, there is a need to consult system operators (NLDC, RLDCs and SLDCs), apart from generators before finalizing this. It would be good if Power Exchanges and Grid India in consultation with major buyers and sellers **prepare a risk identification and mitigation document to carefully audit potential risks and evaluate feasible mitigation strategies to address them**.

3. Need to think about shortening timelines for intra-day transactions

CERC, in its Order in Petition No. 8/SM/2024 dated 28th April, 2025, had directed all Power Exchanges to

> *"…*
> *c. Align the delivery to be 2.5 hours ahead for the Intra-Day transactions, and the trade window to be uniform across the power exchanges."* (Para 47 of the said order)

Now that the commission is considering to shorten the timelines for RTM delivery, we request the Commission to **reconsider and shorten the delivery time for Intra-Day transactions from 2.5 hours** to the time as deemed suitable by the Commission, based on consultation with all Power Exchanges and other relevant stakeholders.