एनएचपीसी लिमिटेड
(भारत सरकार का एक नवरत्न उद्यम)
NHPC Limited
(A Government of India Navratna Enterprise)

CIN: L40101HR1975GOI032564

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वाणिज्यिक विभाग
Commercial Department
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ईमेल/Email: hod-commercial-co@nhpc.nic.in.
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संख्या: एनएच/वाणिज्यिक/सीईआरसी/2026/504 दिनांक: 26.05.2026

सचिव
केंद्रीय विद्युत विनियामक आयोग
7वीं मंजिल, टॉवर-बी, वर्ल्ड ट्रेड सेंटर
ब्लॉक-एफ, नौरोजी नगर, सफदरजंग एन्क्लेव,
नई दिल्ली – 110029

विषय: भारत में रियल टाइम मार्केट्स की शेड्यूलिंग समय-सीमा को कम करने पर स्टाफ पेपर के संबंध में NHPC की टिप्पणियाँ।

संदर्भ: CERC लोक सूचना संख्या RA-14026(12)/1/2026-CERC दिनांक 06.05.2026।

महोदय,

उपरोक्त विषय पर कृपया संलग्न पत्र प्राप्त करे।

धन्यवाद।

संलग्न: यथोपरि।

भवदीय,

(मुकेश मीणा)
महाप्रबंधक (वाणिज्यिक)

एनएचपीसी लिमिटेड
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No. NH/Commercial/CERC/2026/504 **Date: 26.05.2026**

The Secretary
Central Electricity Regulatory Commission,
7th Floor, Tower-B, World Trade Centre
Block-F, Nauroji Nagar, Safdarjung Enclave,
New Delhi- 110 029

Sub.: Comments of NHPC on Staff Paper on "Shortening the scheduling Timeline for Real Time Markets in India".

Ref.: CERC Public Notice No RA-14026(12)/1/2026-CERC dated 06.05.2026

Sir

In reference to above public notice dated 29.04.2026, the comments / suggestions of NHPC on Staff Paper on Shortening the scheduling Timeline for Real Time Markets in India are enclosed for your kind consideration please.

Thanking You,

Encl.: As above

Yours Sincerely,

(Mukesh Meena)
General Manager (Comml.)

Comments of NHPC Ltd on Discussion Paper on Shortening the Scheduling Timeline for Real Time Markets in India

Real Time Market (RTM) was introduced in India in June 2020 to facilitate load-generation balancing closer to real-time. It has provided an avenue for balancing the demand-supply position through an organised market mechanism in near real time. In the Indian Power System, the Real Time Market (RTM) was introduced as a half-hourly market for collective transactions of real-time contracts through Power Exchange(s). The introduction of RTM in Indian Power System resulted in change in the framework of scheduling under the Indian Electricity Grid Code (IEGC) as it allowed the generating stations and beneficiaries to revise their schedules from 7th/8th time blocks before the delivery time block instead of 4th time block before the introduction of RTM.

Currently, the real-time scheduling process takes about **75 minutes** from the end of the 'Revision of Schedule' to the start of the delivery time block. The Commission, while introducing the RTM, had highlighted the need for shortening the time between RTM auction and delivery of power for managing the real-time variations, including renewable generation in the system.

Therefore, in the present discussion paper, it has been proposed to reduce the timeline between the end of 'Revision of Schedule 'and actual delivery of power from the existing 75 minutes to 50 minutes i.e. reduction of timeline by 25 minutes by reducing the bidding time for RTM by 10 minutes and reducing the time between the Gate Closure for RTM and the commencement of delivery of power by 15 minutes.

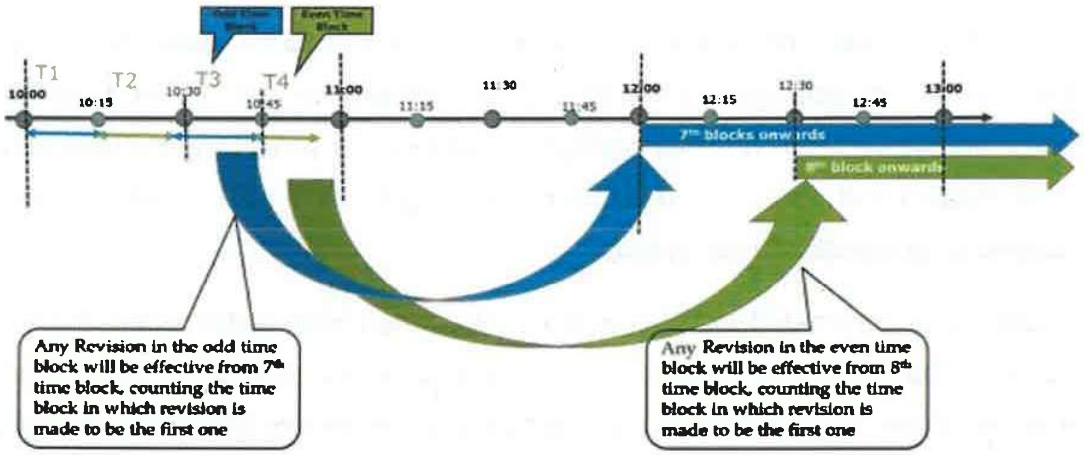
The proposed reduction of the RTM timeline from **75 minutes to 50 minutes** is therefore a welcome step toward enhancing real-time grid responsiveness and operational efficiency. However, some suggestions/ comments of NHPC on the discussion paper are as under:

Comments of NHPC:

The discussion paper discusses the importance of reducing the RTM timeline from 75 minutes to 50 minutes in shortening the scheduled revision period. The paper also highlights the requests from various stakeholders to reduce the schedule revision period to minimise DSM penalties.

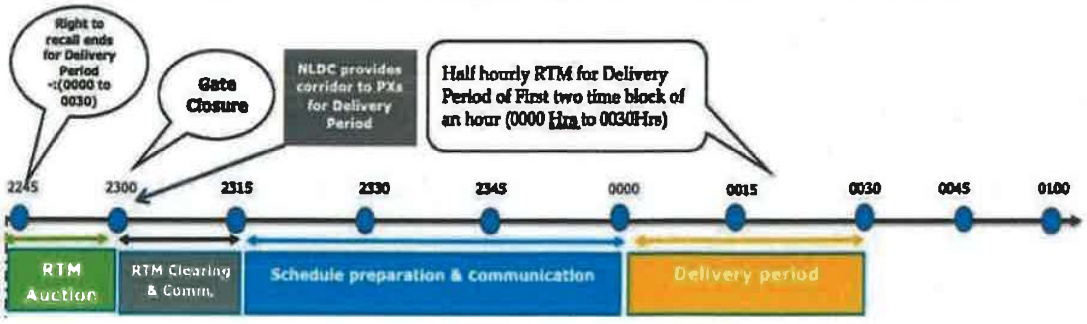
Presently, any revision in the schedule made in odd time blocks becomes effective from the 7th time block onwards, and any revision in the schedule made in even time blocks becomes effective from the 8th time block onwards, counting the time block in which the request for revision has been received to be the first one. **This means, once the real-time market commences for any specific half hour delivery period, the revision in the schedule for that half-hour (two-time blocks) is not permitted.** In other words, the 'Revision of Schedule' is nothing but the product in the electricity market continuum, which could be exercised by the beneficiaries until the Real Time Market (RTM) for a specified half-hour commences. The current timelines for the revision of the Schedule is as under:

Figure-1: Revision of Schedule as per IEGC



The timeline for above schedule follows from the current timeline of RTM which is as under:

Figure 2. Time line for Real Time Market (RTM) – Current

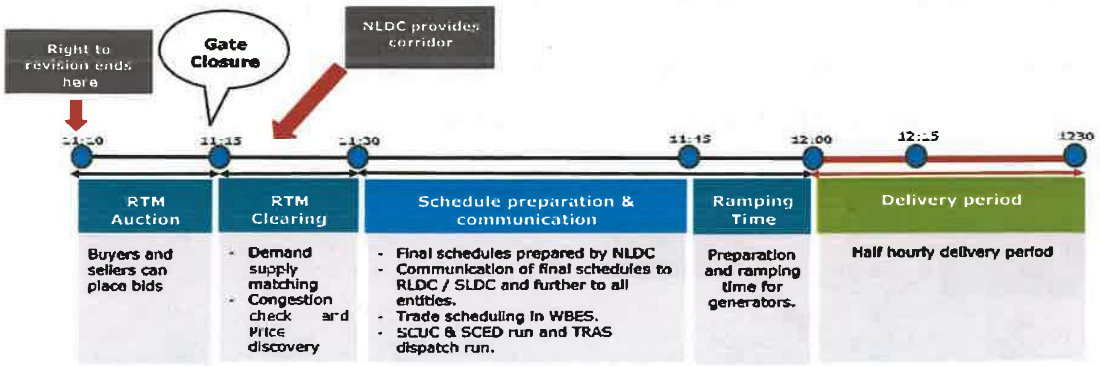


Aman Mahajan

From both the figures, it is clear that once the bidding for a delivery period commences, schedule revision for that period is not allowed.

In the proposed timeline, the bidding for delivery period commencing from 12:00 is proposed to start from 11:10 as shown below:

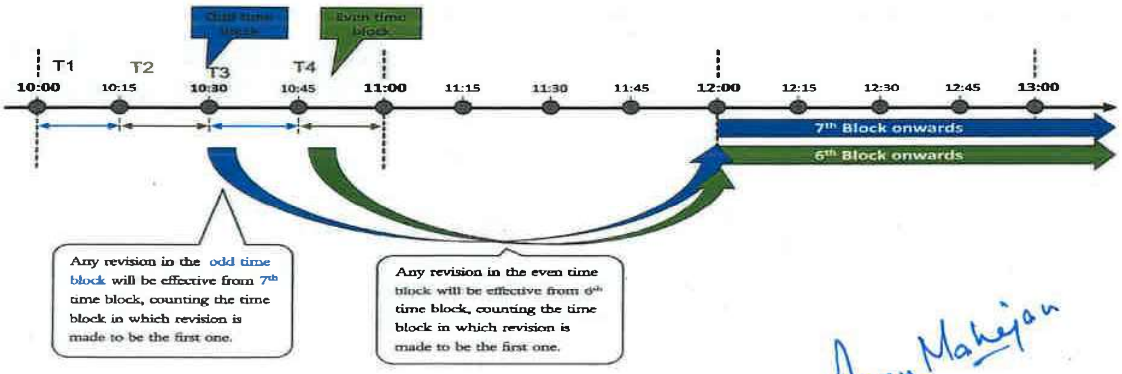
Figure-5: proposed timeline of RTM



In the proposed timeline, the right to revision ends at 11:10 which is a time between a time block (i.e. 11:00 -11:15). Thus, as per the proposed timeline any schedule revision made before 11:10 in the time block 11:00 -11:15 shall be allowed for delivery period 12:00-12:30 and any schedule revision made after 11:10 in the time block 11:00 -11:15 shall be allowed for next delivery period 12:30-01:00.

As per NHPC, this proposal shall have operational constraint as any schedule revision made in a time block are processed for revision collectively. This shall result in a situation where in any schedule revision made before 11:00 shall be allowed for delivery period 12:30-01:00. The resultant timeline in this scenario for revision of schedule as per IEGC is as under:

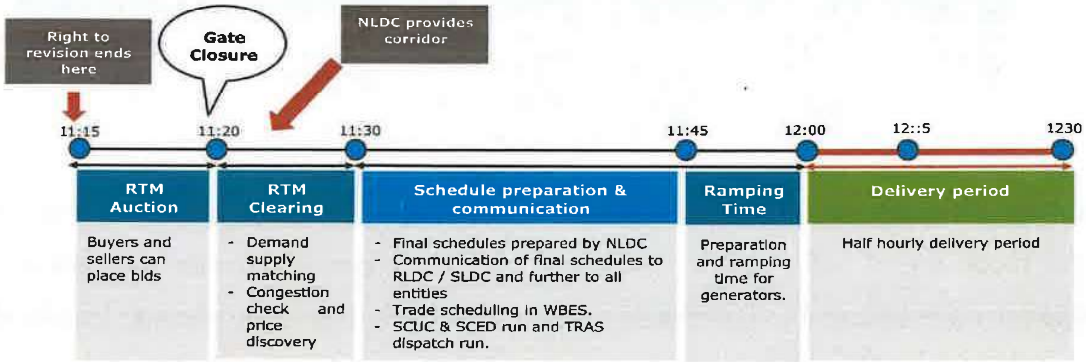
Revision of Schedule as per proposed timeline of RTM



Aman Mahajan

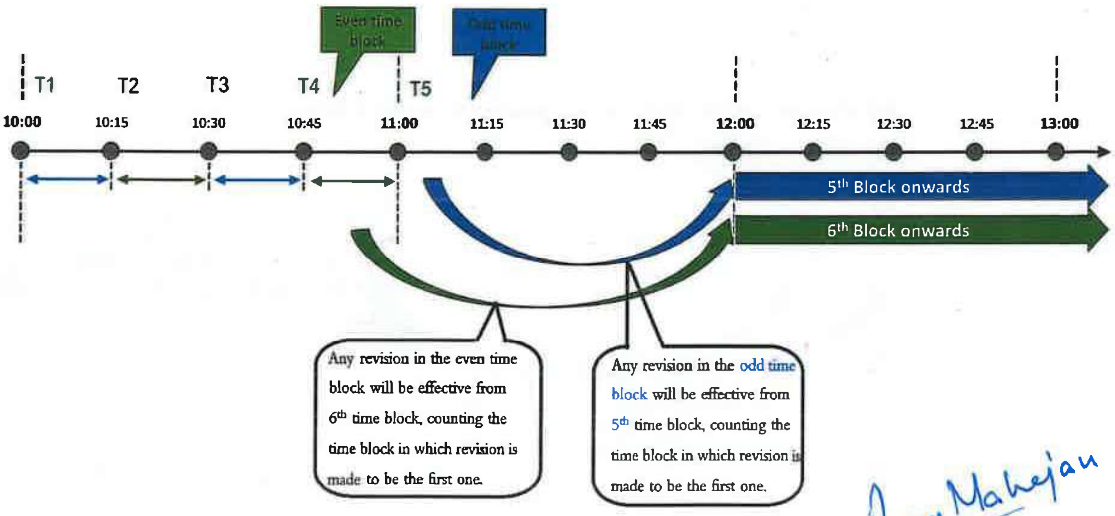
Thus, it is visible from above timeline for revision of schedule, if the timeline for RTM is reduced from 75 minutes to 50 minutes as proposed, any revision in the schedule made in odd time blocks becomes effective from the **7th time block onwards**, and any revision in the schedule made in even time blocks becomes effective from the **6th time block onwards**, counting the time block in which the request for revision has been received to be the first one. Thus, there will not be any reduction in schedule revision time for schedule revision made in odd time block.

Therefore, it is proposed that a further 5 min reduction be made in RTM window and reduce the timeline of RTM to 45 minutes as under:



The above proposed change in reduction in timeline of RTM from 50 minutes to 45 minutes shall result in following change in the timeline for revision of schedule as per IEGC

Revision of Schedule as per proposed timeline of RTM



from above timeline for revision of schedule, if the timeline for RTM is reduced from 75 minutes to 45 minutes, any revision in the schedule made in **odd time blocks** becomes effective from the **5th time block onwards**, and any revision in the schedule made in **even time blocks** becomes effective from the **6th time block onwards**, counting the time block in which the request for revision has been received to be the first one. Thus, there will be reduction in schedule revision time by 30 minutes for schedule revision made in even/odd time block.

Or

Alternatively, if reduction of timeline for RTM from 50 min to 45 min is not possible presently, it is proposed that the window for revision of schedule of odd time blocks may be made effective for only first 10 minutes of the time block i.e. no schedule revision is allowed for last 5 min of odd time block. This will result in a scenario where any revision in the schedule made in **first 10 minutes of odd time blocks** becomes effective from the **5th time block onwards**, and any revision in the schedule made in **even time blocks** becomes effective from the **6th time block onwards**, counting the time block in which the request for revision has been received to be the first one.