

Sembcorp comments on “Proposed framework for Real-Time Market for Electricity”

1. Elongated DSM exposure and concerns over grid security:

Reference: Clause 18 of Regulation 6.5 of Part 6 of the proposed Central Electricity Regulatory Commission (Indian Electricity Grid Code) (Sixth Amendment) Regulations, 2019

*“18. Revision of declared capability by the ISGS(s) having two part tariff with capacity charge and energy charge and requisition by beneficiary (ies) for the remaining period of the day shall also be permitted with advance notice. Any revision in schedule made in odd time blocks shall become effective from 7th time block and any revision in schedule made in even time blocks shall become effective from 8th time block, counting the time block in which the request for revision has been received by the RLDCs to be the first one.
..”*

Under the existing framework both the Generator as well as the Discoms can revise the schedule or declared capability till 4 time-blocks before the actual delivery of power. The said 4 time-blocks (equivalent to 1 hour) before the actual power delivery is a reasonable timeline for estimating the real time power demand-supply requirements. The said timeline of 4 blocks is also reasonable from the Grid Stability perspective, in case of huge deviations from the Seller(s)/Buyer (s) in real time, due to unforeseen events.

However, as per the revised framework, this period is proposed to be increased from existing 4 time-blocks to 7 or 8 time blocks. This will have major implication on Generators and Discoms in terms of DSM charges and would also have detrimental impact on the Grid security due to sustained deviations for 7-8 time blocks (as against 4 time blocks at present). This is explained in the following points:

- Implication on Generators:
 - In case of unit tripping/forced outage, generators were earlier able to revise their declared capability latest by 4th time blocks before actual power delivery and have to pay DSM penalty for these 4-time blocks. Now, under the proposed framework, DSM exposure for generators will increase from 4-time blocks to 7 or 8 time blocks. Since, Unit tripping / forced outage is an unforeseen event (may be 10 to 12 times a year), it has huge financial implication (almost 2 times) on generators.
- Implication on Discoms:
 - Discoms under the current framework can recall the backed-down power before 4-time blocks before actual power delivery. Under the proposed framework, as revision of schedule will be allowed only after 7 or 8 time blocks, Discoms will lose their right to recall for additional 3 or 4 time-blocks. Discoms will have to depend on Real Time Market to meet its dynamic power requirement. Such dependence of RTM instead of firm tied-up power would increase the risk profile for the Discoms both in terms of its pricing as well as its availability.
- Implication on Grid:
 - Under the proposed framework, both generators as well as Discoms’ schedule would not get revised for 7 to 8 time-blocks and would increase DSM exposure upon occurrence of

an unforeseen event. Elongated DSM exposure implies sustained deviations thereby increasing risk on grid stability.

The concept of Real Time Market is a step in right direction which will help supply of quality power in cost economical manner. At the same time, RTM will bring discipline in forecasting, scheduling and dispatch of power. However, the proposed time-frame of 7 to 8 time blocks would create imbalances in the system by pushing away the scheduling time away by 3 to 4 time-blocks as compared to the existing framework.

In order to successfully implement Real Time Market, it is requested to shorten the time between commencement of RTM and start of actual delivery of power from proposed 5 time blocks to 3 time blocks by reducing the schedule preparation and communication to 1 time block.

2. Ramp-up/Ramp-down issue for coal based thermal power generators:

Under the proposed framework for Real Time Market, the generators (especially coal-based generators) would not be able to fully participate. This is due the fact that thermal generators have limitation to operate their plants at a specified ramp-up / ramp-down rate. There may be many instances whereby power is sold under RTM for a particular time-block, and it does not get cleared in the subsequent time block, resulting in frequent cyclic loading for machine. Further, even with cyclic loading, to address the Ramp Up/down limitations, generator will be forced to restrict their sale quantum under RTM to Ramp up/down limit only, even if they have abundant power for sale.

The proposed framework for Real Time Market does not address this issue which would important to create depth in the proposed intra-day market.