

# Comments and Suggestions on Staff Paper on Regulatory Oversight on Bidding Behaviour in Power Exchanges

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To initiate discussions on regulatory oversight of bidding behaviour in Power Exchanges, the CERC Staff have issued a paper for public comments.

With the ceiling at Rs.10/unit on all market contracts (other than HP-DAM), the Staff paper highlights two major issues:

- Clearing price in about 20% of the blocks is close to the ceiling price of Rs. 10/unit highlighting supply constraints in the market especially in peak periods.
- The risk of buyers paying much higher prices (by bidding close to the ceiling to secure supply) than the cost of generation of the infra-marginal producers, resulting in increase cost to consumers.

The Staff Paper notes that some of these issues could be managed by improved monitoring of bids and proposes three measures:

1. **Screening of sell bids:** All supply offers to be evaluated against benchmark supply offers (BSO) (equivalent of the regulated or estimated energy charge). No bids should exceed 1.6x the BSO and the average bid price for any generator should not be more than 1.20x the BSO.
2. **Screening of buy bids:** The quantum of buy bids is limited to the residual ATC. All bids above the ATC are to be rejected.
3. **Ex-post sell bid evaluation:** Post bidding, identify pivotal suppliers using market simulations based on BSO, capacity availability, transmission availability for various periods. Further analyse if pivotal suppliers have inordinate market power and influence prices.

Our comments and suggestions relate to the issues and the three proposals identified in the paper, the need to revisit the ceiling tariff which has substantial impact on bidding behaviour and complimentary institutional and regulatory initiatives required towards market monitoring in a growing market.

Market price discovery ought to be driven by supply availability as well as demand requirements. The objective of market operations, especially for a marginal market like the DAM and RTM segments in India is economic and efficient price discovery which can act as an important price signal for demand-side and supply-side measures to address shortage/surplus. The objective is not towards enabling accurate power procurement planning or optimisation of DISCOM procurement. Some of the regulatory measures proposed in the staff paper interfere with market functioning and market-based price discovery.

**Optimal procurement of power by DISCOMs (for long-term, medium-term and short-term) are better managed by adherence to Resource Adequacy procedures and regulations. In fact, interventions in the price discovery mechanisms will also lead to reduced liquidity in the DAM and RTM segments. For**

example, since the price was reduced from Rs. 10 to Rs. 12, there has been a ~19% reduction in the volume transacted in the Day ahead segment. Such measures can also have far-reaching implications for the introduction of derivatives where the interest could be lower with such regulation on bids and prices. Further, the objective of transparent price discovery in the market might become a challenge as generators may shift to bilateral trades on OTC platforms over time where prices may be more reflective of actual market demand.

Therefore, any measure to reject bids based on specific criteria should not be considered by the Commission.

## 1 Risks and implementation issues related to proposals for screening and rejection of bids

There are also challenges with the specific proposals in the staff paper:

- **Removal of level playing field and increased uncertainty with the introduction of BSO:** For regulated entities, the energy charges would be based on regulated charges. However, in case of delays in change in law dispensation due to disputes, the regulated charges may vary significantly from the actual charges. Further, verification of variable charges for Merchant Power Plants would be challenging and such information asymmetries due to lack of regulatory oversight would not contribute to a level playing field between generators. This is also the case for marginal contract cost (on a monthly basis) for DISCOMs and traders as well as for renewable energy and other must-run generators.
- **Rationale for the 1.6 times per block and 1.2 times per day unclear:** As per Rule 9 (1) of the Late Payment Surcharge Rules, 2024, the bid offer price for URS capacity offered by generators which have contracts with DISCOMs is capped at 1.2 times the regulated energy charge. With this existing legal limitation, a large magnitude of the capacity already has a cap on bid offer price. Thus, the rationale for bid rejection based on bid price to may not be necessary.
- **Screening of buy bids based on residual ATC:** The impact of such screening might be quite significant on DISCOMs power planning and portfolio optimisation. It might also reduce participation by DISCOMs in DAM or increased stress in the RTM market. Instead of rejection, an intimation can be provided on the bidding platform to correct erroneous bids. Before such a proposal for screening is considered it would be important to understand the impact on prices due to the number of such instances of bidding by DISCOMs. This is not detailed or clearly explained in the staff paper.

Several issues highlighted in the paper seem to be linked to the buyers bidding at the ceiling of Rs.10/ unit which also affects bidding behaviour by sellers. Perhaps for certain time-blocks, given supply constraints, the ceiling price of Rs.10/unit is low and not a true reflection of market demand. Instead of screening of bids, more innovative and dynamic changes in the ceiling price might be more reflective of the variations in demand and supply in the Indian context. Further, there is a need to strengthen post-facto market monitoring mechanisms at the power exchange as well as with the central and state regulators (for accountability of DISCOMs and their power purchase) to address many of the issues highlighted in the staff paper. Some suggestions in this regard are below:

## 2 Proposal for a dynamic ceiling price

While ceiling prices are necessary in the current context where 60% of the volumes are contracted by DISCOMs, there are several reasons why the present ceiling price affects effective market functioning:

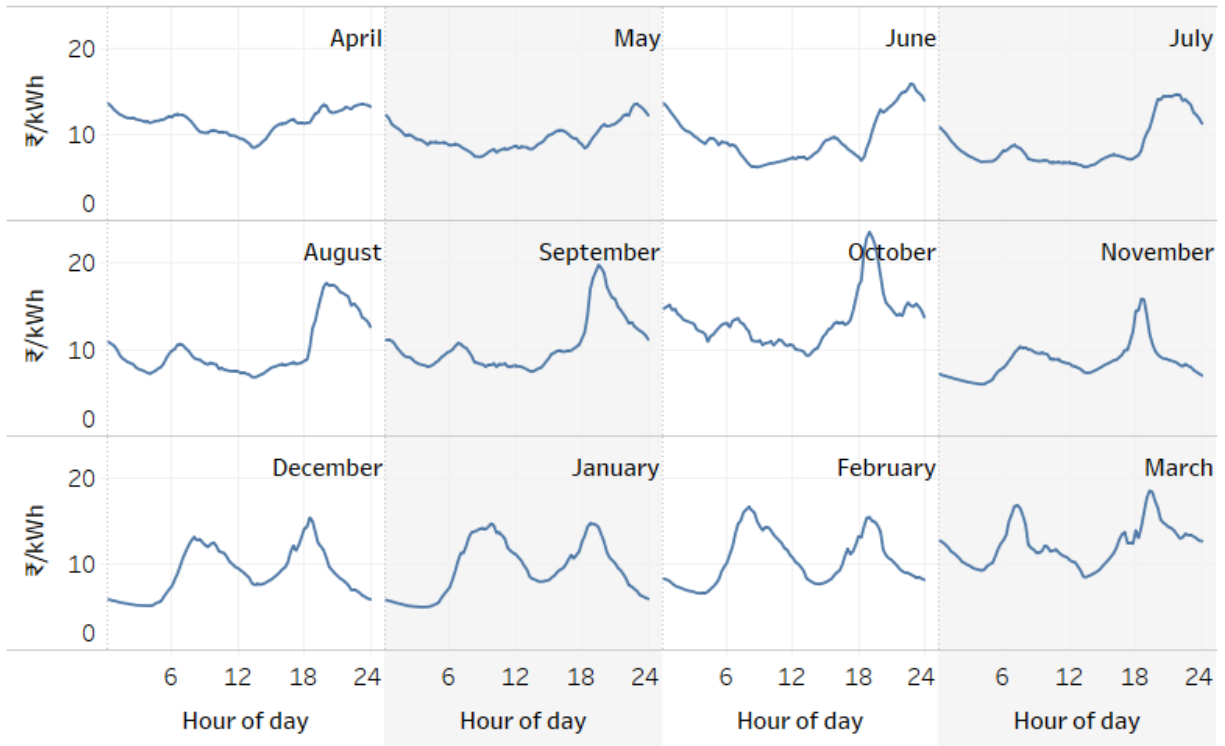
- **Not reflective of variations in demand and supply:** The present ceiling price of Rs.10/unit is uniform across contracts, time-blocks and seasons. However, demand and supply varies with time and nearer-term contracts typically have higher prices. In fact, even DISCOM tariffs for some consumer categories account for this variation in the ToD tariffs. Going forward, with increased RE uptake the variation between supply during day time and non-solar net peak hours will be significant. Further, with increased liquidity in the exchanges, a uniform ceiling will further constrain bidding behaviour and innovation.
- **Not reflective of current consumer tariffs for competitive segments:** Rs. 10/unit is higher than what several consumer categories pay as energy charges in several states. In fact, sales to consumers paying energy charges higher than Rs. 10/unit in 6 states (Maharashtra, Madhya Pradesh, Andhra Pradesh, Telangana and Karnataka) is high enough to account for 25% of the volumes transacted in TAM, DAM and RTM. As tariffs increase year on year, more such consumers will also participate where bidding at the ceiling could still result in tariff savings.
- **Disincentivises DISCOMs from undertaking resource planning:** DISCOMs long-term and short-term resource planning strategies to ensure resource adequacy should be to limit participation in short-term markets and contract long term capacity. In such a scenario, market prices should play a less significant role in the DISCOM portfolio and thus should not distort DISCOM power purchase rates. In fact, the possibility of power at or less than Rs.10/unit removes incentives for undertaking rigorous efforts towards procurement planning.
- **Will reduce confidence in the derivatives segment linked to these contracts:** If the MCP at peak periods is constrained at Rs.10/ unit, certainty in prices would increase reducing the need and the interest for a derivatives market in the electricity sector.

**It is proposed that a dynamic ceiling price be introduced in all the contracts. The ceiling price can be 2.5x the average MCP for the past 3 to 5 years in the DAM segment across exchanges.**

Figure 1 shows the variation in ceiling on a block-wise basis with this approach. As is seen in the figure:

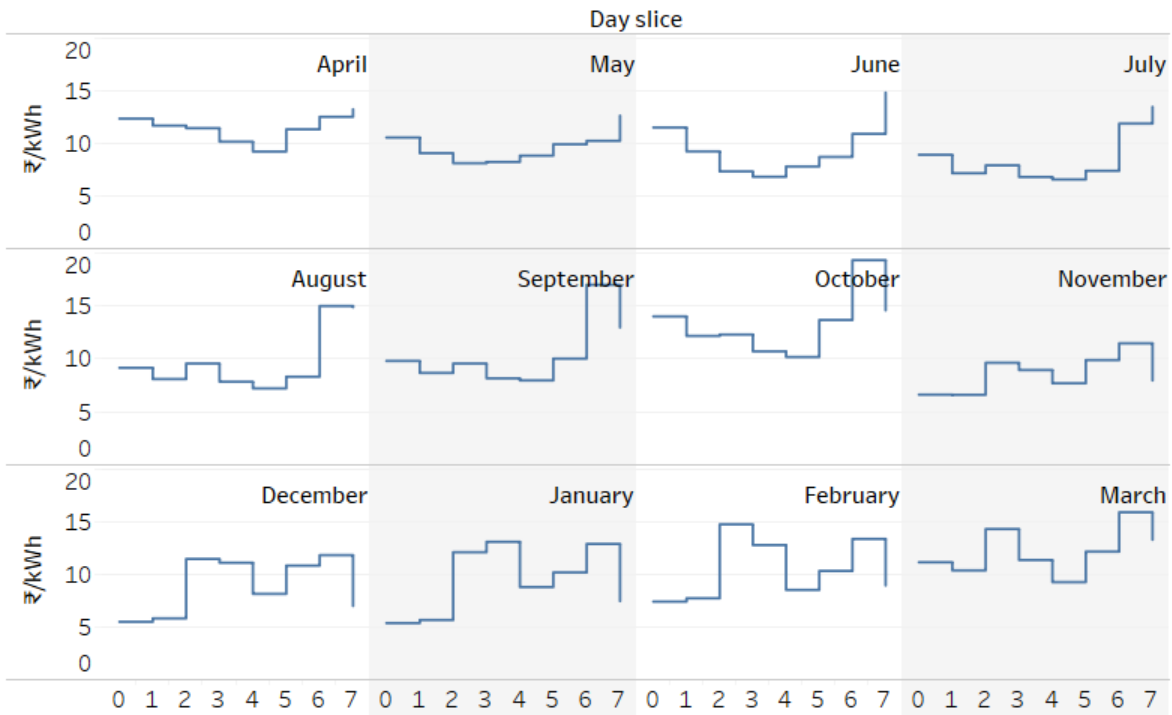
- During summer and monsoon months, the ceiling is close to Rs.10/kWh for day-time and off-peak night-time periods.
- During monsoon and post-monsoon months (September and October), the evening peak ceiling would be significant for some hours. In October it could be higher than Rs.20/unit.
- Between December and March, morning and evening peak ceilings would be between Rs. 10 and Rs. 15/unit.

Figure 1: Block-wise monthly average price (FY19 to FY23) for DAM



Towards ease of implementation, the ceiling could vary every 12 blocks (3 hours) as is shown in Figure 2.

Figure 2: Three hourly month-wise weighted average price (FY19 to FY23) for DAM



It is suggested that:

- The ceiling be implemented for a period of 3 to 5 years and re-assessed based on market trends and changes in demand-supply mix.
- The ceiling should be 2-2.5x the five year average ceiling price for the DAM segment across exchanges and can be fixed for a 2-3 year period.
- The ceiling price for each period (block, hour, 3 hours) should be the same for the month.
- The commission can consider the same ceiling for at least 3 blocks towards ease of implementation
- The ceiling in the near-term RTM segment should be 30% higher than the dynamic ceiling proposed in the DAM segment.
- The ceiling in the TAM segment can be 10%-15% lower than the DAM segment for the time-period.
- The ceiling should be uniform across the power exchanges to prevent opportunistic bidding.

Fixation of ceiling in such a manner is simple to implement and understand and is possible in the current regulatory framework. It would help generators plan for availability during peak periods, provide certainty to DISCOMs to the extent of price increase during peak periods towards improved planning and bring in more innovation in the market. It would also encourage time of use tariffs, dynamic pricing and demand response measures going forward to encourage consumption when average power prices are lower.

### 3 Institutional approach to market monitoring required

Concerted but different strategies are required towards ensuring effective price discovery in the power exchange and holding DISCOMs accountable for optimising their power procurement costs. Some suggestions in this regard are listed below:

- **National independent agency for market monitoring:** A separate independent agency for market monitoring should be created which is financed market participants (say by marginal increases in trading margins, application fees for open access etc). This agency should look at short-term and medium-term trends across various segments of market operation across jurisdictions and provide relevant information to appropriate governments and regulators. Such an agency should track open access transactions (RE and non-RE) across various durations, DEEP trades, intra-state bilateral trades, inter-state bilateral trades, URS trades as per Rule 9 of the LPS Rules, power exchange transactions etc. Based on data and analysis from SLDCs, power exchanges etc., aggregate statistics can be published by the agency and the agency can also provide information for regulators to act on. This can be on aspects related to efficacy of contracts and price discovery mechanisms as well as bidding behaviour.
- **Independent audits of price discovery and auction mechanisms:** The Commission should direct power exchanges to conduct third party independent audits of their auction design

and price discovery mechanisms with the objective of reducing overbidding, concentration of market power and gaming. Such an audit should be conducted every 2-3 years and the findings should be shared in the public domain along with Commissions observations and directives.

- **Data regarding DISCOM market participation should be compiled and reported:** All DISCOMs in India are subject to cost-plus regulation and the costs incurred for power procurement are passed onto consumers. To ensure accountability for DISCOMs market participation, information pertaining bids by DISCOMs, clearing prices for each block and sellers (especially in the TAM segment) should be shared by the power exchanges in a pre-specified standard format with the appropriate state regulatory commission and CERC on a monthly basis. Such information should be used by regulators while conducting prudence check of DISCOMs power procurement. Aggregate statistics of DISCOM trades should also be shared by the Power Exchanges to CERC which can be published and analysed as part of the market monitoring committee reports.
- **Effective Market Surveillance Committees:** As per Regulation 32, the PXs are to have a Market Surveillance department and a Committee to analyse bidding patterns. The Market Surveillance Committee is to submit quarterly surveillance reports on :
  - Transaction pattern of members of Power Exchange over a specific time period;
  - Daily, weekly, monthly volatility analysis of prices
  - Price setter analysis of buyer and seller;
  - Dominant position by Market Participants;
  - Monitoring of Circular Trading;
  - Analysis of sudden high transaction volumes of members of Power Exchange;
  - Analysis of default by any member of Power Exchange;
  - Analysis of transactions to check that the market splitting as approved by the Commission is being followed in case of congestion in transmission corridor;
  - Analysis of market concentration in daily transactions;
  - Analysis of marginal buyers and sellers, whose volume was cleared at the margin

The regulatory requirements are quite comprehensive. The reports or at least the observations of the MSC along with the recommendations should be available in the public domain to provide a better understand of shortcoming in current market design. CERC should have a suo motu process (with a public hearing) each year to take corrective actions based on the MSC recommendations.

Such a comprehensive and coordinated approach would aid effective monitoring and price discovery in the power exchanges.

