

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 04/SM/2023 (Suo-Motu)**

**Coram:**

**Shri Jishnu Barua, Chairperson**

**Shri I.S. Jha, Member**

**Shri Arun Goyal, Member**

**Shri P.K. Singh, Member**

**Date of Order: 31<sup>st</sup> March, 2023**

**IN THE MATTER OF:**

Directions by the Commission to the Power Exchanges registered under the Power Market Regulations, 2021

**ORDER**

The Commission vide Order dated 06.05.2022 in Petition No. 05/SM/2022 (Suo Motu) had in exercise of powers under Regulation 51(1) of the Power Market Regulations 2021 (PMR 2021) directed the Power Exchanges from the date of issue of the Order till 30<sup>th</sup> June 2022, to redesign their software in such a way that members can quote their price in the range of Rs.0/kWh to Rs.12/kWh in Day Ahead Market (DAM) including Green Day Ahead Market (GDAM), Real Time Market (RTM), Intra-day, Day Ahead Contingency and Term-Ahead (including Green Term Ahead) Contracts. The applicability of the said directions was extended from 1<sup>st</sup> July 2022 to 30<sup>th</sup> September 2022 vide Order dated 30.06.2022 in Petition No. 09/SM/2022 (Suo Motu), which was further extended from 1<sup>st</sup> October 2022 to 31<sup>st</sup> December 2022 vide Order dated 29.09.2022 in Petition No. 13/SM/2022 (Suo Motu), and thereupon the applicability was extended until further orders vide Order dated 28.12.2022 in Petition No. 17/SM/2022.



2. Further, the Commission, in the Order dated 16.02.2023, in the matter of approval of the introduction of the High Price Day Ahead Market (HP-DAM) in the Integrated Day Ahead Market (I-DAM) segment at IEX, and approved the price ceiling of Rs. 50/kWh.

3. The Commission has been reviewing at regular intervals the situation in the power market and other factors having impact on the demand and supply of electricity in the country. Based on the analysis of data for the past three months, the Commission observes as under:

*Trend in Day Ahead Market (DAM)*

- a) The percentage of blocks in a day with Market Clearing Price (MCP) at Rs.12/kWh (price ceiling) ranged from 0% to 47% in January 2023 and from 0% to 40% in February 2023 in the Day Ahead Market. The percentage of blocks in a day with MCP at Rs. 12/kWh has been in the range of 0-33% in March 2023.
- b) The Peak Demand touched 212 GW in January 2023 and 210 GW in February 2023. The month of February of 2023 when compared to the same month of 2022 (with peak demand of 193 GW) witnessed an increase of 8% in peak demand. The Peak Demand is expected to intensify further with the onset of summer and increase in manufacturing activities from April onwards. As per the “Report on Twentieth Electric Power Survey of India” published by CEA in November 2022, the all-India peak electricity demand for the year 2023-24 is projected to be around 230 GW.
- c) The maximum buy-to-sell bid ratio in the DAM at IEX was 5.01 in January and 6.59 in February 2023. During March 2023 (till 25.03.2023), the maximum Buy to sell bid ratio was 3.73.
- d) A positive correlation between the MCP and Buy to Sell Bid ratio, with a correlation coefficient of ~0.9, has been observed. This clearly indicates that the demand or buyers’ behavior is driving the prices higher in recent months.
- e) A granular analysis of block-wise data shows that the sellers bidding in the range of Rs 8-12/kWh, are mostly the state utilities and IPPs based on imported coal and e-auction

coal. The average bid price of such sellers has generally been lower than Rs.10/kWh. However, during peak hours MCP touches the price ceiling of Rs. 12/kWh largely because of the buyers bidding at ceiling price due to higher demand.

- f) The general understanding is that price formation is the function of demand and supply; that the high prices give signal for more supply to come in and eventually the price normalizes on its own. However, this theory does not seem to hold in the current market situation in the Power Exchange(s). There is inadequate supply commensurate with demand during peak hours, and on several occasions the aggregate supply curve is made to move up vertically to intersect the aggregate demand curve for price formation. Further, it's the fall in demand rather than increase in supply that is stabilizing the market price.
- g) In high demand situation, therefore, there are possibilities of buyers paying abnormally high prices, even when the cost of generation by infra-marginal producers is not that high.

*Context of High Price Day Ahead Market (HP-DAM)*

- a) The Commission introduced the High Price Day Ahead Market (HP-DAM) in the Integrated Day Ahead Market (I-DAM) segment at Power Exchange and approved the price ceiling of Rs. 50/kWh in view of the then prevailing imported gas prices and the RRAS Up data of GRID-India.
- b) There has not been any trade in this segment since its introduction. However, the imported natural gas prices have come down significantly and averaged at ~ US \$13/mmbtu (as per Platts JKM LNG price) in March 2023, compared to the average price of US \$40/mmbtu in March 2022. A similar trend has been observed in imported coal prices based on Argus and Platts indices. The latest RRAS Up data of GRID-India also shows decline in the energy charge of the gas based generating stations available

with NLDC in the recent months. All this call for a review of the basis for demarcation between DAM and HP-DAM.

4. With due regard to the emerging demand and supply scenario, the phenomenon of price formation in DAM as noted above and taking cognizance of the fact that the prices of imported coal and natural gas witnessed a significant reduction over the last few months, the Commission finds it expedient to review the existing price ceiling in DAM (including GDAM), HP-DAM, RTM, Intra-day, Day Ahead Contingency and Term-Ahead (including GTAM) Contracts traded at the power exchanges.

5. Regulation 51 of the PMR 2021 provides as under:

*“51. Other circumstances requiring intervention (1) The Commission may, on being satisfied that a situation of abnormal increase or decrease in prices or volume of electricity in the Power Exchange exist or is likely to occur in the market, by an order, give such directions as may be considered necessary. ....”*

6. In exercise of the aforesaid powers under Regulation 51(1) of the PMR 2021 and in view of the prevalent power scenario and likely high increase in demand going forward, the Commission in public interest, directs all the Power Exchanges to re-design their bidding software for the period from 04.04.2023 until further orders, in such a way that the members can quote the price in the range of (a) Rs.0/kWh to Rs.10/kWh for all contracts, viz., DAM(including GDAM), RTM, Intra-day, Day Ahead Contingency and Term-Ahead (including GTAM); and (b) Rs.0/kWh to Rs.20/kWh in the HP-DAM segment. This in our view would reduce the cost of power for the buyers, while providing an opportunity to the high cost generators and the willing buyers to participate in the HP-DAM market.

7. The Power Exchanges are further directed to submit the compliance of the above directions within two days from the date of issue of this Order. The directions given in this Order shall supersede the directions in the Order dated 06.05.2022 in Petition No. 05/SM/2022



(Suo Motu) and the Order dated 28.12.2022 in Petition No. 17/SM/2022, from the date of compliance of the directions given in this order.

8. While parting, we would like to underscore that the Commission is sensitive to the possible impact of frequent intervention in the operation of the power market, and accordingly in the interest of ensuring regulatory certainty in the matter, direct the staff of the Commission to examine and propose measures to bring predictability on market intervention for consideration of the Commission.

9. Accordingly, the Suo-Motu Petition 04/SM/2023 is disposed of in terms of the above.

**Sd/  
(P.K. Singh)  
Member**

**Sd/  
(Arun Goyal)  
Member**

**Sd/  
(I. S. Jha)  
Member**

**Sd/  
(Jishnu Barua)  
Chairperson**

