CAPTIVE POWER PRODUCERS ASSOCIATION
(Registered U/sec. 25 of Company Act 1956 & Certificate of IT 12AA
CIN: U91990MH2003GAP141611)

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Vikas Patangia
PRESIDENT

To,

Date: 11th November, 2022

The Secretary,
Central Electricity Regulatory Commission,
3 rd & 4th Floor, Chanderlok Building, 36,
Janpath, New Delhi-110001

Subject: Suggestions and Comments on CERC Staff Paper on "Power Market Pricing" dated 12 October 2022- reg.

Dear Sir,
Captive Power Producers Association ("CPPA") is representing the interest of Industries in various States and UTs having captive power plants at their industries in fulfilling the energy requirement of their industries through captively produced power.

The proposed paper is in the wake of reviewing the pricing methodology currently adopted in our country due to recent surge in Power demand and consequent increase in prices in Market. The commission finds it expedient to review regulatory framework, pricing methodology and explore new option to avoid such situations.

In response to issues and question raised in section 3 of proposed Staff paper, we would like to submit our comments as per the enclosed Annexure-I for your kind consideration

Thanking you.

Yours faithfully,
For Captive Power Producers Association

Annexure – I

CPPA Suggestions and Comments on Staff Paper on 'Power Market Pricing'

SL. No.	Points for Discussion	Comments/Suggestions
(1)	*3.1 Does Pricing Methodology need a change?*	The price discovery methodology, Pay as Bid Auction is introduced by CERC in this Staff paper. The primary objective of initiating the discussions is to address the concerns regarding super normal profits for inframarginal generators under current Uniform Market Clearing Price (UMCP). **Suggestions:- We suggest to continue with Uniform Price Methodology** 1) The present UMCP methodology is well tested in Power Exchanges in India, with this prices have remained reasonably stable over a period of more than a decade. On a few certain durations where prices moved beyond reasonable range, regulatory intervention was required. This method is universally accepted and adopted by Power Exchanges worldwide. 2) To stem high prices, the Commission vide order dated 1st April 2022 revised the ceiling price in the DAM to 12 Rs/KWh from 20 Rs/Kwh. Sellers started trading in TAM at prices above Rs. 12/ KWh. Hence any such intervention where the price is not determined by market forces, sellers will try to find ways and means to sell at higher price. 3) Worldwide Major Power exchanges like Epex spot, Nord Pool, AEMO, ATS, PJM, ERCOT, ISO-NE, SPP, MISO, AESO, NYISO, JPEX have adopted and are continuing to function with UMCP method. 4) The CERC Staff Paper refers recent paper by Willems and Yu in 2022, wherein the paper studies and compares both the methods of auction i.e. Pay-as-Bid auction and Uniform Market Clearing Price auction. A portion of concluding paragraph from the paper is reproduced below: *"We compare the two auction formats and examine producers' bidding behaviors and price-cost mark-ups in the short run, as well as the investment and*

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		generation portfolio in the long run. Our results show that pay-as-bid auctions are inefficient." 5) To add further to this, a separate research paper by Alfred E. Kahn, Peter C. Cramton, Robert H. Porter, and Richard D. Tabors evaluates the California Power Market which experienced the similar price spikes concludes as "*Any belief that a shift from uniform to pay as-bid pricing would provide power purchasers' substantial relief from soaring prices is simply mistaken. The immediate consequence of its introduction would be a radical change in bidding behavior that would introduce new inefficiencies, weaken competition in new generation, and impede expansion in capacity."* 6) By adopting Pay as Bid Auction, the very principle of double sided closed auction for discovery of market clearing price and the transparency in price discovery will be questionable since the sellers will be paid according to their bid prices and not the market Clearing Prices. 7) Pay as Bid method might benefit those who own more information about predicting the market, rather than those with most efficient technologies. Smaller market player might get affected negatively as Pay as Bid method is based on "Guess the market Price". Under the uniform price rule, competitors prosper or fail on the basis of their relative generating efficiencies or cost of generation. Pay-as Bid Auction will be creating uncertainties, imposing extra costs of forecasting on small firms and generators with small bid volumes. 8) Sellers would be quoting high bid price in Pay as Bid Method compared to UMCP method as margin would be taken into account over the cost of generation. This would reduce the producer surplus and will result into higher MCP over the long duration period and will significantly increase Average Power Purchase Cost (APPC). 9) It is not clear how and to what extent Pay as Bid method would address the issue of unusual and exceptional price surges in the market but will surely depend on the response of market participants', but it will surely increase the

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		Average Market Clearing Price compared to past years, ultimately burdening the consumers.
(2)	*3.2 What should be the criteria for Regulatory Interventions?*	**Regulatory Intervention** 1. Market Clearing Price (MCP) is the price at which a consumer wants to buy and a seller wants to sell and at this price supply and demand are in equilibrium. In an ideal condition there should not be any regulatory intervention because market Clearing Price (MCP), over a period of time, is the true indicator of cost of power where buyer is willing to pay and seller is willing to supply. 2. Introducing regulatory measures are required when market sees abnormal behaviour where price discovery is taking place due to demand supply gap and not due to increase in power generation cost. Where Sellers starts hijacking the price artificially distort the demand- supply curve of the market **Criteria for Regulatory Intervention** 1. In case of Market Prices moving beyond a reasonable range due to mismatch between demand and supply on few exceptional instances, Regulatory Intervention would be required. However, It should be limited to measures providing stability to market over larger duration of time and instead of short term measure of price capping, directing generators to sale power in certain markets like DAM etc. 2. Also, during the mismatch in demand and supply in the market, there should be market products available on the power exchanges for buyers who are willing to buy at very high prices (more than the ceiling price) 3. Commission may suitably evaluate the options of having different capping of allowable bid price for different types of sellers within the same segment of market. For example maximum bid price for a gas based generators will be higher than a coal based generator.

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(3)	*3.4 What should be the market design for incentivising demand response and energy storage system (ESS)?*	1. Reduced supply in the market will affect the biding behaviour of buyers and buyers will place bids at relatively higher prices to secure the power requirement. Hence, corrective action through demand response programme is advisable including load forecasting, reserve margin, resource adequacy, technologies such as BESS.
(4)	*Would be advisable to cap only supramarginal or high cost generators? And what should be market design separately for supramarginal and Inframarginal generators ?*	1. When the similar prices spikes were observed in the Power Markets worldwide, various measures were taken for example, European Union has taken steps like power saving /reducing consumption during peak hours, a cap on excess revenue by power plants that do not use gas to produce electricity, such as solar, wind, nuclear, hydropower and lignite etc. Feasibility of similar kind of measures may be evaluated with respect to Indian Power Market. 2. Also, price capping based on ToD/Time of day usage can be experimented in Indian Power Market to test if the same is an effective measure to avoid price spikes. At the same time it is necessary to check the impact on liquidity and demand behaviour by stakeholders during these hours. 3. The staff paper does not discusses at what rates buyers would pay for the power availed through the power exchanges. Also, what will be the treatment of surplus amount which may get accumulated in the pool account of power exchanges in case buyers pay at MCP and sellers get paid at bid price? It may be prudent to capture this aspects also so that a decision best suited methodology for function of power Exchanges in India is taken.