GRIDCO LIMITED

(A Govt. of Odisha Undertaking)
(Formerly Grid Corporation of Orissa Limited)
Regd. Office: Janpath, Bhubaneswar-751022
CIN: U40109OR1995SGC003960

Through E-mail

File No. Sr. GM - (PP) – 72 / 2012 (Pt.5)/ 1494 **Dated . 11 . 11 . 2022**

To,

The Secretary,

Central Electricity Regulatory Commission,

3rd & 4th Floor, Chanderlok Building,

36, Janpath,

New Delhi - 110001,

Sub: Views of GRIDCO Ltd. on the Staff Paper on "Power Market Pricing".

Sir,

Please find enclosed herewith, the views of GRIDCO on the above said subject for further action at your end.

Yours faithfully,

Encl: As above

11/XI/2022

General Manager (Trading & BS)

CC to:

i) Director (T&BD) for kind information.
ii) CGM (PP) for kind information.
iii) EA to MD, GRIDCO for kind information.

View of GRIDCO on CERC's Staff Paper on Power Market Pricing

Hon'ble CERC has prepared a Staff Paper on "Power Market Pricing" to review the pricing methodology used in the power market, in light of the recent surge in electricity prices discovered in the power market, and to explore possible options to deal with such situations in a predictable manner. The stakeholders have been requested to submit their views and suggestions on the aforesaid paper.

Accordingly the views of GRIDCO regarding the Staff Paper on "Power Market Pricing" are mentioned below:

1. **Staff Paper Item No. 3.1: Shifting from Uniform Market Clearing Pricing to Pay-as-Bid mechanism:**

   In the Staff Paper, it has been deliberated that whether to switch to Pay-as-Bid pricing methodology from the prevalent Uniform Market Clearing Price methodology. In this regard, GRIDCO has the following observations:

   i. In the present uniform pricing rules and in an effectively competitive market, sellers have every reason to place price bid at their marginal opportunity costs for each of the blocks of power that they offer. Because if any of the bids is rejected they will not have committed themselves to sell power at prices that fail to cover the avoidable costs. Further, if the bids are accepted the sellers will receive the full benefit of the discovered market clearing price, permitting them to pocket the difference between their marginal costs and the market clearing price as a necessary contribution towards recovery of their fixed charges and, in some cases, profits.

   ii. The objective of the Pay-as-Bid mechanism, as enumerated in the Staff Paper, is mainly to wipe out the mark-ups that the sellers are receiving over the marginal costs/ bid prices in the Uniform Clearing Price regime, thereby reducing the electricity prices. In this case, it is being assumed that the sellers will continue to bid at their marginal costs, however the same will not happen because the sellers will definitely safeguard their interests and place their bids at higher prices which shall result in a number of disadvantages as mentioned below:

      a. The Pay-as-Bid mechanism will inevitably introduce and impose the cost of forecasting market prices on all participants as the sellers won't be bidding at their marginal costs but will try to bid at the forecasted market prices so as to earn better profits. The cost of such will ultimately be borne by the consumers. Under the uniform market-clearing price system, sellers have every motivation to bid their marginal costs, which are readily available to them. The change in the pricing mechanism would introduce large uncertainties into their calculations and the correspondingly large costs of attempting to forecast the market-clearing price or prices, as the sellers would try to bid at the forecast price rather than the marginal price.

b. As the pay-as-bid mechanism will result in the sellers placing their bids at forecasted market clearing rates instead of their marginal costs, it is highly probable that the economic despatch of generators shall not be achieved. The reason being the clearing of power in the market shall depend on the accuracy of market price prediction rather than the marginal cost of generation.

From the above, it may be concluded that whereas the shift from uniform market clearing price to pay-as-bid doesn't guarantee the electricity price to go down, but it may result in multiple un-desired consequences in the power market such as speculative bid prices, etc. Therefore, the pay-as-bid mechanism should not be implemented.

2. **<u>Staff Paper Item No. 3.2: Regarding margin earned by infra-marginal generators</u>**

The Staff Paper has also highlighted the point of surplus profits made by some generators, i.e. power plants that do not use gas or other high cost fuel to produce electricity, during high market conditions and such generators are being termed as Infra-marginal generators. It should be noted that some of the sellers in the power market are State DISCOMs and the margin earned over and above the marginal costs are usually adjusted against the fixed cost obligations of their respective contracted generators. And, even if profit is made through sale of power in the power market, the same gets adjusted in its ARR/ Truing-up and the profits are ultimately passed on to the consumers of the State. Thus, imposing any levy on the margin earned by utilities should not be considered. In contrary, the earnings of the generators, such as the merchant power plants, are not passed on to the consumers, thus a levy may be imposed on the supernormal profits made by such generators. However, while deciding the rate of levy it should be kept in mind that the amount of levy should not discourage private participation in the power generation sector.

3. **<u>Staff Paper Item No. 3.3: Treatment of supra-marginal generators</u>**

Another concern that has been raised in the Staff Paper is regarding the identification of supra-marginal generators and how they can participate in the market under regulated price regime. In this respect, it is suggested that the supra-marginal generators may be defined based on their marginal cost of generation, rather than defining them on the basis of the technology or fuel-cost. This may act as a pressure on the generators to operate proficiently and employ efficient technologies to maintain their marginal costs at desirable levels.

And for participation of such supra-marginal generators, a separate market segment may be introduced in the Term Ahead Market (TAM) which shall not only provide better surveillance & monitoring but also shall facilitate the DISCOMs who are willing to purchase power at energy rates higher than the regulated prices. If such TAM exhibit sufficient liquidity then the option of segregation of the Day Ahead Market (DAM) basing upon the energy rates, i.e. Low Price DAM (LP-DAM) & High Price DAM (HP-DAM) may be explored. In the LP-DAM, the ceiling price may be regulated so as to accommodate most of the generating stations in the country while HP – DAM shall aim at providing opportunities to the high cost generators to participate in the market. Notwithstanding the aforesaid, such segregation shall require vigilant surveillance to avoid gaming by the generators. Further, provisions must be in place which shall allow the high cost generators eligible for HP-DAM to participate in the LP-DAM whereas the generators eligible for LP-DAM should not be allowed to participate in HP-DAM.

4. **Staff Paper Item No. 3.4: Development of Market of Energy Storage Systems (ESS)**

It is being envisaged that the ESS shall serve as a solution to the intermittency of the Renewables as well as to the peak power shortages faced by different stakeholders of the power market. However, at present the ESS is at a very nascent stage and requires promotion to evolve & mature. Therefore, for the time being efforts should be directed towards development of infrastructure for commissioning of ESS projects through regulatory support, as was done with the renewables.

And accordingly, development of market for ESS should be considered. As in case of introduction of green energy market, Term Ahead Market (TAM) may be introduced in the first phase and considering the response of the participants in the TAM, Collective market for ESS may be conceptualised.