



**FICCI Representation on
'Discussion Paper on Re-Designing Ancillary
Services Mechanism in India'**

**Submitted to:
Central Electricity Regulatory Commission**



Recommendations on Draft Discussion Paper on “Re-Designing Ancillary Services Mechanism in India”

- A) A Draft Discussion Paper on “Re-Designing Ancillary Services Mechanism in India” was published by Central Electricity Regulatory Commission (CERC) on 6th September 2018 vide notification no. RA-14026(12)/3/2018-CERC. CERC had invited comments/suggestions from the stakeholders on the Discussion Paper due for submission by 10th October 2018.
- B) FICCI welcomes the proposal of introducing market-based mechanism for tertiary ancillary services segment based on day-ahead scheduling and dispatch in real time under a gate closure and market clearing arrangement. FICCI also agrees with the concept that the target resource should be enabled to provide multiple flexibility services comprising both fast and slow tertiary response and thus, derive the benefit of revenue stacking.

Broadly, FICCI concurs with the design of an optimal market structure by inviting bids from eligible power plants. This being a forward-looking Paper, FICCI would additionally suggest that Demand Response (DR) Systems be also identified as a resource to provide tertiary ancillary service to widen the scope of market participation, competition and price discovery. Such measure would further serve the cause of energy conservation and evolution of price-responsive demand side management.

The Paper also suggests co-optimisation of energy and ancillary services markets to allow generation resources the flexibility of serving either or both of these markets depending upon real time demand dynamics. The defining measure is the proposal of synchronizing the mechanism with Real Time Energy Market (proposed vide CERC Discussion Paper) and co-optimising when such market commences operations. Convergence in intra-day operations is also provided in the adoption of Uniform Auctions for ancillary services to establish a market clearing price.



Given both the dynamics and divergence of price discovery under a market mechanism in different time segments that would emerge under day-ahead and intra-day bidding, further consultation of experts is suggested to ensure that effective price balancing is a concurrent outcome while implementation issues of synchronisation and co-optimisation of energy and ancillary services markets are effectively addressed.

The following paragraphs relate to a few specific comments on operationalisation of the proposed scheme:

1. Demand Response (DR) Systems to also Participate (Para 6.9)

Along with Renewable Energy resources, we would also propose inclusion of appropriately-structured Demand Response (DR) Systems to provide ancillary services; both international practice and IEEE research support the practice and advocate suitable rule-making for market participation of DR Systems.

2. Charges for Tertiary Services

- a. Capping on reserve prices to restrict market development (Para 6.28):** The Paper proposes capping of the reserve prices with the highest variable cost of the available CERC regulated generation capacity. It will not be practical to cap the prices of the reserve to ancillary services because during the time interval when the price discovered at the power exchange is more than highest variable cost of the available CERC regulated generation capacity in the country, the costliest CGS would also be scheduled in the Energy Market itself and there would not be any resource available for the AS, as the market discovered price would be higher than the variable cost of the costliest CGS plant and beneficiaries of such plant would schedule the available CGS capacity.



In such occasions, facilitating ancillary services would be difficult as there would be no un-requisitioned capacity available at the disposal of the system operator. If the price of reserves is capped, it forms a barrier for other resources e.g. hydro generators, Battery Storage, Plug-in Hybrid Electric vehicles, and demand response to supply energy and participate in the balancing market. As the variable cost of these generators could be higher than capping rate, they would not be willing to participate in the AS market if their realization is capped.

b. Principle of Causer-to-Pay to be upheld (Para 6.34): There should be a separate pool under the supervision of NLDC catering to the requirement of Ancillary Services in order to have transparency and clarity in collection/usage of funds. A budgetary support may be provided by GoI for initial years or till the time AS market becomes self-sufficient. Also, the charges may be recovered in one or more of the following ways:

- i. To be calculated on a causer pays basis as done in Australia wherein the amount paid by Australian Electricity Market Operator (AEMO) for the FCAS service is recovered from market participants responsible for causing the need for the service.
- ii. As done in PJM (US), the total cost of AS for the Operating Day to be allocated and charged to the Members in proportion to their locational real-time deviations from day-ahead schedules and generating resource deviations during that Operating Day.
- iii. All generators and buyers to bear the balancing cost in proportion to the energy supplied or consumed



Further, Para 6.36 suggests that the charges for tertiary services be recovered from DSM Pool initially. It is necessary to check the value of the DSM pool as the same is being depleted continuously. It is therefore suggested that the **principle of causer-to-pay**, which is based on the contribution towards frequency deviation, should be adopted.

3. Clarity of the illustrative Examples (Para 6.30)

- a. Bringing clarity on market functioning:** Each scenario needs further explanation in terms of how reserve prices have been determined, explanation for day ahead position and terminology such as Econ Disp, Fully Disp etc., how the payments will be settled within the pool etc.
- b. Demand not being price sensitive:** The examples provided in the discussion paper are principally based on the US model of power market, which is essentially characterized by demand not being sensitive to cost as 100% demand comes on the Exchange. The Indian model of power market derives its essence from the European market where aggregation of demand and supply bids, which are price sensitive, take place to arrive at the clearing prices. In all the examples provided in the Discussion Paper, the demand has been considered to be fixed irrespective of the prices in the market.
- c. Multiple Exchange Scenarios:** The paper does not dwell upon how the market would be handled in a multi-Exchange scenario, which is a reality in India. The examples are also not clear on how the reserves would be divided between the power exchanges. As such, more detailing and discussions are needed.