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To
Secretary
Central Electricity Regulatory Commission
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Sub.: Discussion Paper on “Market Based Economic Dispatch of Electricity: Re-designing of Day-Ahead Market (DAM) in India” – Reg.

Sir,

This has reference to public notice dated 31.12.2018 on the above cited subject and seeking comments of the Stakeholders on the Discussion Paper latest by 15.02.2019.

In this regard, views, suggestions & recommendations of GUVNL are as under:

1. MBED proposes to pool all electricity including from Projects having PPA to mandatory bid in Power Market on daily basis in order to discover a uniform price. The primary argument put forward in Discussion Paper for bringing metamorphic change in the way long term and short term market functions is that cheaper generating stations are not utilized fully and rather costlier generating stations are utilized. The paper is proposing to divert / shift entire power presently flowing under long / medium / short term contractual arrangement through Power Market i.e. Power Exchange.
2. It is to mention that present wholesale market framework is unique wherein each participants has its portfolio of power sources with differentiated pricing which is being operated as per Merit Order dispatch principle subject to technical limitations. MBED proposal would lead to structural transformation whereby instead of decentralized decision making collectively by ALDC, SLDC, RLDC & NLDC with Utilities based on local demand-supply scenario, System Operator & Market Operator would be handling the centralized process.
3. Framework ignores need for local generation – as flow of power is notional, purchase purely on pan India basis through Market Clearing Price (MCP)

concept may lead to imbalance in high demand pockets of each region / State as local generation is inevitable for ensuring reliable grid operations.

4. The transmission assets / evacuation infrastructure has been created over the years based on anticipated flow of power from Source region to Target beneficiary region for which the payment of transmission charges is being made by designated beneficiaries through POC mechanism. As the transaction under MBED would be very huge, it is obvious that actual load flow scenario on daily basis would be different than what has been planned on long term basis, entailing issue of recurrent congestion, market splitting and ultimately sub optimal utilization of assets. The same may also constrain for capital investment towards regions facing frequent congestion.

The entire assumption for network planning and life cycle cost of assets may become redundant due to continuous change in flow of power between regions. In addition, the system beneficiaries already bearing the burden on long term transmission charges may be further burdened with additional cost towards transmission as per MBED power flow.

5. Draft Paper proposes that discovery of Market Clearing Price (MCP) for each time block would be bid value of last generator offer matched to meet demand offer. The same needs further clarification as to how the MCP for each time block would be discovered i.e. whether it would follow Revenue Maximization principle like presently on Power Exchanges. Further, the MCP methodology in case of transmission congestion may also be clarified. Assuming that MCP discovery is like present DAM mechanism at Regional periphery, there needs to be clarification with regard to applicability of regional as well as state level losses for injecting / drawing entity as the same has to be factored in by bidders for pricing power.
6. Draft Paper – Table I at Page 32 provides for assumption of Congestion Settlement wherein DISCOM-3 having long term tie up of 1500 MW at Rs. 3/kwh is depicted as having Demand Offers at Rs. 8/unit, although settlement is at effective rate of Rs. 3 / kwh.

Accordingly, there is a need to specify as to whether there would be separate bids for (i) quantum in lieu of long term contracts (ii) balance quantum to be purchased from market and (iii) optional purchase quantum for substitution of marginal costlier generation. Further, there is no clarity as to what shall be upper

ceiling of bids by DISCOMs in lieu of bid for long term contracted capacity as same would be pool of various generation sources.

In the scenario wherein DISCOMs are unable to secure anticipated quantum from MBED, whether DISCOM has to dispatch marginal stations under self-scheduling or DISCOM shall be allocated quantum at MCP on mandatory basis needs to be clarified. In addition, there needs to be clarification as to how the contingency in Real time market would be addressed i.e. under-drawal due to low demand, huge variation in RE generation, outage of generating stations, from whom power is scheduled under MBED and commercial settlement thereof.

7. In case entire quantum is being scheduled through Market Operator, any imposition of transactions costs, margin, tax implication etc. would have cost implication for power already contracted under long / medium / short term and the same would act as deterrent. Thus, necessary clarification is required.
8. MBED mechanism proposes settlement of contracts at MCP and subsequent refund of differential tariff (MCP less Contracted VC) through Bilateral Contract Settlement Mechanism (BCS).

In this regard, it is to mention that proposed settlement mechanism is silent on the time period for settlement of MBED payment obligations. In case, it is kept in line with present DAM timelines for contract settlement stipulating adequate margin prior to bidding and same day margin adjustment for matched transaction, it would lead to manifold increase in Working Capital requirement of DISCOMs and escalate overall power purchase cost. Further, event flow under MBED towards settlement at MCP, refund of contract rates through BCS, Congestion settlement, transmission charge component etc. involves complex transactions which can be avoided.

9. At present, the long term contracted capacity are governed by various provisions for Penalty, Incentive, adjustment towards Change in Law on annual / monthly basis as stated in the agreement. Moreover, the Generators have executed Fuel Supply Agreement as per which less off-take of fuel beyond specified quantum entails penalty on Generators being passed on the Procurers. Further, concessional fuel allocated by Govt. of India to Projects / States would have dedicated end beneficiary and dispatch under MBED would dilute the same. MBED mechanism does not take care in to consideration the levy/ sharing of

such penalty in case the plant is not scheduled owing to MCP being lower than the marginal generation cost.

10. CERC has notified separate Regulation (May-17) laying detailed procedure for compensation to plants for station heat rate, auxiliary energy consumption for low unit loading and secondary fuel oil consumption for additional start-ups. In MBED regime, as schedule is contingent to MCP and fixed cost is payable by original beneficiary, who shall bear the burden towards cost implication due to such technical parameters variation needs to be clarified.
11. At Figure 26 of Draft Paper, an illustration of Actual generation and revised generation in MBED mechanism for 1st July 2016 has been provided to depict the potential benefit.

The illustration does not take care into consideration whether the time period for which un-requisite power being assumed to be utilized in lieu of marginal costlier power is co-incident and what are the peak requirements and timing for each State. The reason being July month period is predominantly a monsoon period wherein overall demand is lower while for meeting the peak period load, marginal stations have to be operated. Further, the simulation carried out ignore the variation in declared capacity forecast and actual dispatch due to various parameters like feasibility of power flow, transmission corridor congestion, outages, fuel shortages etc.

In real time scenario, it is usually observed by SLDCs/DISCOMs that cheaper power is available under URS during off-peak/ low demand period majority of time which is otherwise not required by other beneficiaries. Accordingly, anticipating the URS utilization on absolute basis in the illustration i.e. based on Million Units only, may not give a correct picture of real time scenario.

12. Discussion paper states that in the event Generators under long term contracts having sold URS in day ahead or any other time horizon, Generator will have to buy-back from the real-time market to meet their contractual obligation, if the DISCOMs exercise the right to recall. Illustrations (Annexure IV) provides for settlement as per which Generator who has sold power to market in MBED (D-1) at MCP would have to buy power at in RTM at prevailing RTM while recovering only Actual Variable Cost from the beneficiary exercising Right to recall.

In the above context, there needs to be clarification with regard to obligation of the Generator towards buy back of such power under Right to recall to avoid issues specifically in scenario when RTM price are higher than MCP prices in case of additional requisition by DISCOM and similar issue when RTM price are lower than MCP prices in case of Downward revision sought by DISCOM.

13. As per MBED, the obligation towards fixed cost is not pooled and prevails with the original beneficiary while Seller is mandated to bid in market. In case, Seller have quoted rate higher than MCP, it would not get dispatch which may lead to gaming for ensuring fixed cost recovery even in case of outage, fuel shortage and technical limitation for generation at full capacity.
14. MBED model is based an assumption that each generator would bid only at variable / marginal cost of generation. However marketing clearing prices in 2018 discovered in dominant Power Exchange at Rs. 12-18/unit for peak blocks and around Rs. 7/unit for RTC power contradicts the assumption.

It is pertinent to mention that no Seller would wish to sale power in market at a price lower than expected real time price and the same may lead to overstatement of costs by Sellers for revenue maximization, which would lead to volatile bidding and resultantly price instability. MBED model in a manner may also encourage merchant bidders, free capacity, hydro capacity as well as Renewable capacity in a future date to quote sale bids for maximizing their revenue, which would not address the objective of social welfare maximization of participants unlike present mechanism wherein buy bids are placed by DISCOMs only for the balance requirement of power or for substituting the marginal costlier generation for cost optimization.

15. The proposed MBED mechanism for transition to pool based market is very complex, involving redundancy, multiple transaction, ignores the real time demand-supply dynamics of load center and mainly, the cost benefit analysis of such major transition is unconfirmed due to lack of empirical data.

Instead of out rightly changing the present market by shifting to MBED mechanism, which is prone to instability, it is suggested that innovative measures for further improvising existing mechanism for optimal operation of power plants in the country may be deliberated.

16. It is evident from the actual utilization of Central Sector stations that projects having competitive rates are getting full schedule even through URS. The issue of sub-optimal utilization of other ISGS station having higher marginal variable cost is owing to fixed cost payment under URS which drives up the total landed cost. Therefore, a proposal may be devised for forgoing the benefit in reduction of fixed cost as is the case when NTPC sells the URS power through Power Exchanges. It means that URS power can be taken inter-se ISGS beneficiaries at variable cost only while fixed cost obligation thereof shall remain with original beneficiary.

Moreover, to ensure secured grid operation and economic dispatch, mechanism of Ancillary Services (RRAS), Flexible utilization of coal policy, stringent DSM Regulations and Spinning Reserves through Grid Code Amendment has already been implemented.

Ministry of Power, Govt. of India vide 30.08.2018 has notified Scheme on Flexibility in Generation and Scheduling of Thermal Power Stations to reduce the cost of power to consumer. In view of the same, it would be prudent to analyze the impact as well as benefit on account of implementation of above Scheme without pooling the fixed cost in the first instance the objective of which is to economize the cost of procurement of power.

In view of above, it is suggested that the proposed MBED may not be implemented at present and need for the same shall be reviewed with detailed cost benefit analysis at subsequent stage after consulting stakeholders.

Thanking you.

Yours faithfully,



(K. P. Jangid)
General Manager (Commerce)