

Serentica Renewables' Comments on CERC's Staff Paper on Power Market Pricing

#	Questions from Staff Paper	Comment and Inputs
1.	<i>Does Pricing Methodology need a change?</i>	<p>The Staff Paper has introduced the concept of “Pay-as-bid” pricing methodology” as a possible alternative for the existing regime of “Uniform Market Clearing Price”. The “Pay-as-bid” methodology is fairer to the Sellers, as each Seller gets paid exactly what they had bid for.</p> <p>However, one point of concern is that in “Pay-as-bid” pricing methodology, Sellers can change their bidding strategy and may increase their bid price – resulting in bidding prices which may be more than marginal cost of generation, thereby giving an incorrect price signal for addition of new generation capacities.</p>
2.	<i>What should be the criteria for Regulatory Interventions?</i>	<p>There is a point in the Staff Paper on possible additional levy being made applicable on Sellers to ensure no windfall gains are made. While mechanism and quantum of such levy would need to be worked out, it should also be ensured that such levy is applied only on the profits component, and not the entire revenue of the Seller.</p> <p>Such levies collected should then be used to form a common fund, with the purpose of the fund being to ensure that the levy collected from such proceeds is to be paid back to the System by way of incentivising/ promoting development of demand response or energy storage initiatives.</p> <p>With increasingly more green power being injected into the grid, there has been enhanced requirement for reliable power during times of lesser generation from the green power (Renewable power) projects. This has led to demand increase during the spot prices during the non-renewable generation hours of the day. To ensure no adverse effects of the grid or the markets from such situations, there is a need to either augment generation from peaking plants or have more Energy Storage Systems (ESS) present in the system.</p> <p>In line with the above, incentive schemes with VGF can be introduced to make sure that peaking plants or Energy Storage Systems come up in required quantities. Other measures also can be thought of, such as single window clearance, identify and bid out Pumped Storage Hydro projects, and support stranded gas power plants.</p>
3.	<i>What should be the market design for incentivising demand response and energy storage system (ESS)?</i>	<p>Generation resources flexibility: For Hydroelectric power plants, output and flexibility provision are seasonal, limited by the size of the reservoirs and rainfall patterns. New/ expansion Hydroelectric capacities face locational and environmental constraints and thus their inclusion in planning for medium to long-term will always be limited.</p>

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		<p>Traditionally Gas-based generation has also played an important role in providing peak support and balancing services. However, looking at the landscape of stressed assets in this segment (and more than 10 GW of capacity lying stranded/ underutilised) along with the still unresolved fuel issues, points to lower priority for Gas-based power plants in medium- to long-term planning.</p> <p>Demand side flexibility: Flexibility potential from demand response would entail demanding flexibility from different sources like agricultural loads, EV charging, industrial flexibility and cooling – which can play an important role in meeting daily balancing and ramping requirements in a longer-term timeframe.</p> <p>Time of Day (ToD) Tariffs: The installation of smart meters should be coupled with the Time of Day (ToD) tariff to provide better demand response to reduce energy consumption during peak hours.</p> <p>If actual ToD tariffs are applicable, consumers are incentivised to shift their consumption to the time slots wherein the power prices are cheaper. Such ToD tariff should be applicable to all consumers including domestic consumers to facilitate a flatter load curve.</p> <p>Energy Storage Systems (ESS): ESS can provide similar benefits when connected at various load centres to flatten the load curves. Cost benefit study may be undertaken to assess which option yields better consumer benefit in terms of costs. Ideally, it should be a combination of both. Two options emerge for this – Pumped Hydro Storage and Batteries.</p> <p>Pumped Hydro Storage projects give better economies of scale benefit and lower tariffs. On the other hand, Batteries are scalable at almost any level, and they could be located where needed to reduce transmission and distribution costs and constraints. Both these two mechanisms should be encouraged for development to ensure that Power System Operators are able to manage peak demand and grid balancing optimally in the wake of large scale RE penetration.</p>