



INDIAN WIND POWER ASSOCIATION

(Northern Region Council)

Date: 16.10.2023

The Secretary,
CENTRAL ELECTRICITY REGULATORY COMMISSION (CERC)
3rd & 4th Floor, Chanderlok Building,
36, Janpath, New Delhi -110 001

**Subject: Indian Wind Power Association's (IWPA) submissions on CERC's Staff Paper on
"Market coupling"**

Dear Sir

At the outset, we extend our gratitude to the Hon'ble Commission for issuing the Staff Paper on "Market Coupling" and also for giving opportunities to all stakeholders by inviting comments on the paper in order to have a comprehensive view of the market participants before taking any decision on the afore mentioned subject. We would like to introduce our self as the Indian Wind Power Association (IWPA)- NRC, an Association of wind power developers and investor of India which since its inception, IWPA- NRC has been working towards removing barriers to wind power development and creation of an enabling regulatory and policy environment for better investments in the sector. The Association is working closely with several national industry bodies such as the Indian Renewable Energy Development Agency, Ministry of New and Renewable Energy, Ministry of Power, Ministry of Environment, Confederation of Indian Industry, State Utilities, State Electricity Regulatory Commissions etc.

We welcome the move introduced by CERC regarding introduction of Market coupling which would provide a uniform price discovery across all the exchanges for collective transactions. This would help in increasing competition in the market and thus would provide market transparency along with better prices to the generators as well as the buyers. But there are few concerns at the regulatory as well as commercial side which we would suggest this Hon'ble Commission to evaluate before implementation of the proposed mechanism. Please find our suggestions/observations on the matter enclosed herein.

For IWPA-NRC

**Mr. K.R Nair
(President)**



S. No.	Para in the Study paper	Suggestions/Observations
1	<p><i>"4.1. Globally, market coupling has been introduced to integrate two or more electricity markets or different geographies. However, in the Indian context, the objectives of market coupling, as stipulated in the Power Market Regulations 2021 ('PMR 2021'), include the discovery of a uniform market clearing price, optimal use of transmission infrastructure, and maximisation of economic surplus"</i></p>	<p>It is true that uniform MCP will help the market participants to freely engage with the exchange which provides them with better service at a competitive transaction cost.</p> <p>Further optimal use of transmission infrastructure would help in managing the congestions and thus resources could be utilized to the optimum.</p> <p>Targeted capacity addition of 500 GW in Renewable Energy space by 2030, provides additional avenues of investments in Transmission, Distribution & Storage space. The power exchanges will play prominent role in providing a transparent market-based platform for transaction in electricity for benefit of consumers.</p>
2	<p><i>"5.2. Does the current Indian power market scenario form a compelling case for market coupling?"</i></p> <p><i>5.2.4 Given the existing market share of power exchanges in the collective transaction segment, it seems that while the implementation of market coupling may not cause any major change in terms of</i></p>	<p>In Indian context, Market coupling means the process where the collected Orders from all the Power exchanges are aggregated together and then matched to discover a uniform market clearing price for the entire country. Under market</p>



	<p><i>price discovery, the bids could be divided among the exchanges, which at present are concentrated in one exchange. International evidence suggests that in countries where multiple exchanges exist, for instance, in Norway, where there are Nord Pool and EPEX, the bids are sent to the Coupling Operator by the exchanges for rate discovery.”</i></p>	<p>coupling, once this price discovery is done on a combined basis, then the results are sent to all exchanges, and they clear and settle transactions for their respective participants</p>
<p>3</p>	<p>“5.3. Effect of coupling on technological innovation and competition</p> <p><i>5.1.1. One school of thought could argue that price coupling would result in less incentive for product innovation and that the role of exchanges would be reduced to that of a bid-collecting agency. Further innovation, ease of transaction, technology solutions, dissemination of information, analytical tools, high-quality service will all be lost if the coupling of exchanges is centralised. The centralized algorithm, by design, may not be able to accommodate complex bid structures, keeping in view the compatibility of different power exchanges. As a result, the market may have to forego certain innovative products that could have improved participation.</i></p> <p><i>5.3.1. The other school would point to the gains coupling could offer in terms of increased liquidity, efficiency, and competition among exchanges on the basis of the services they offer. Further, the increase in competition between the exchanges could result in a lowering of transaction fees, which would reduce the overall cost to the participants and may further increase the volume transacted.</i></p> <p><i>5.3.2. Therefore, given the underlying economic</i></p>	<p>Coupling for sure would support optimal corridor utilization. At present, allocation of transmission corridors amongst the power exchanges have not been optimal owing to the skewed market share of various power exchanges. In view of this, under a constrained scenario, the Hon’ble Commission had provided for the reservation of transmission corridors for the smaller power exchange (PXIL). However, it was noted that the reserved corridor remained underutilized.</p> <p>Under the coupled market scenario, the market coupling operator would merge the bids from all the power exchanges and then clear them implicitly in one go. Therefore, in the coupled scenario, transmission infrastructure is expected to be used in an optimal manner, and no reservation on the</p>



	<p><i>principle of maximizing social welfare and optimal corridor utilization, which argument fits better in the Indian context?"</i></p>	<p>transmission corridor would be required for any of the exchanges</p>
<p>4</p>	<p>5.4. Who shall be the Market Coupling Operator</p> <p>a. Power Exchanges to perform the function of Market Coupling Operator: <i>The power exchanges, i.e. market operators in the Indian Power Market, just like the procedure followed in the European Market, may be made in charge of performing the role of the MCO on a rotational basis. If this scheme is adopted, the various aspects to be considered, but not limited to, would be:</i></p> <ul style="list-style-type: none"> • Procedure for carrying out MCO Functions <i>The Power Exchanges would be required to jointly design the plan to perform the MCO functions, subject to consultation with the system operator and approval of the Commission. The Power Exchanges shall have to ensure that one single algorithm is utilized each time for price discovery.</i> • Cooperation between Power Exchanges <ul style="list-style-type: none"> <i>o For the exchange of information and related activities, a contractual arrangement will have to be explored to ensure smooth and fair operation between the exchanges and to avoid any conflicts.</i> <i>o Technical infrastructure for the transfer of bid information needs to be in place.</i> • Integrity of the Market Result <ul style="list-style-type: none"> <i>o The result so obtained should be repeatable and auditable.</i> <i>o All the power exchanges should provide acceptance of the result derived by the designated power exchange (acting as MCO), and there should be no possibility for any power exchange to contest the accepted result.</i> 	<p>It is a known fact that the Power Exchanges have a robust technical infrastructure for handling data/bids along with expertise to run the algorithm as fixed/regulated by this Hon'ble Commission. The power exchanges can also handle different market scenarios, thus it seems appropriate that the procedure followed in European Market to be followed in India i.e. the power exchanges be given the role of Market Coupling Operator on a rotational basis.</p> <p>Further the operational designs would be set down & approved by this Hon'ble Commission which would help in streamlining the process.</p> <p>Allowing the Power Exchanges to work as Market Coupling Operator would help in utilization of resources as well as expertise which these Exchanges have.</p> <p>The exchanges already have</p>



<p><i>o Power Exchange may be given the opportunity to compute the result in parallel and validate it. In case a power exchange exercises this option, the complete input file may be made available in an anonymized manner to ensure transparency and integrity in operations.</i></p> <p><i>o To ensure the integrity of market results, the Commission shall conduct periodic audits and analyses of bid data as part of market monitoring and surveillance.</i></p> <ul style="list-style-type: none"><i>Commercial aspects of performing MCO functions, including transaction fees, shall be subject to the fulfilment of regulatory provisions and approval of the Commission.</i> <p><i>b. Third-Party Market Coupling Operator/ Super-Exchange:</i> <i>While the power exchanges have the expertise to run the algorithms and handle different market scenarios, having a third-party MCO shall ensure more objective operation and will not have any conflict of interest. The third party could be the system operator or an explicitly formed entity. A sample information flow in the case of a third-party MCO is used is provided in Annexure-II.</i></p> <p><i>Recently, the Commission has appointed Grid-India as the Nodal Agency for TRAS procurement through the market. The segment was introduced w.e.f 1st June 2023. As the nodal agency, Grid-India receives sell bid information from the power exchanges, enters the buy bid itself, runs the price discovery engine, and publishes the result to the power exchanges and market participants. All these activities broadly cover the functions to be performed by the MCO. Learnings from this segment would also</i></p>	<p>dedicated manpower and expertise to handle large volumes of data securely and can continue doing this on a rotational basis.</p> <p>Further setting up a super exchange would lead to huge unnecessary wastage of resources while our prime concern here is maximization of social welfare/ economic surplus.</p> <p>The apprehensions regarding the transparency of data could be minimized by regular audits and allowing the other exchange (which would not be the MCO that time) to run-the Algorithm on test basis so that the validity of the results can be verified.</p> <p>Even if this Hon'ble Commission desires to assign a Third Party MCO/Super-Exchange, we would request this Hon'ble Commission to see that the overall transaction cost on the buyers/sellers to remain the same. The third party MCO and the exchanges should be required to settle the cost among themselves.</p>
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	<p><i>help in deciding whether to appoint the system operator as the MCO.</i></p> <p><i>The various aspects to be considered in appointing a third-party MCO are as under:</i></p> <ul style="list-style-type: none"> • Technological competence and Data Security <p><i>The entity shall have to ensure:</i></p> <ul style="list-style-type: none"> <i>o One single set of input data. A common format to be designed and adopted.</i> <i>o Develop technical infrastructure for transferring of information from power exchanges to this entity and vice versa</i> <p><i>Along with a robust technical infrastructure, the entity should ensure a high level of data security.</i></p> <ul style="list-style-type: none"> <i>o One single algorithm to be run based on the Commission’s direction regarding the algorithm to be used. If desired, the Commission can direct an IT audit of the technology/ algorithm.</i> <i>o One single set of results that is repeatable and auditable.</i> <ul style="list-style-type: none"> • Regulated Entity <ul style="list-style-type: none"> <i>o The entity should be regulated by the Commission as it is designated to handle large volumes of data. The Commission, if it desires, can direct an audit of such an entity.</i> <ul style="list-style-type: none"> • Commercial aspects of performing MCO functions shall be regulated by the Commission 	
5	<p>5.6. How will the clearing & settlement be carried out?</p> <p><i>5.6.1. Presently, the power exchanges clear and settle the transactions with the nodal agencies on behalf of their clients. The exchanges also manage the pay-in and pay-out of the clients/members. All the exchanges charge a transaction fee in lieu of that.</i></p> <p><i>5.6.2. The PMR 2021 provides that the power exchanges shall carry out the Clearing and</i></p>	<p>The Hon’ble Commission has hinted here that the market coupling function would require a separate fee to be levied upon the market participants.</p> <p>We in this regard would request this Hon’ble Commission to allow the exchanges to serve the</p>



	<p><i>Settlement of transactions in accordance with the Payment and Settlement Systems Act, 2007 (PSSA 2007) within one year. The Regulations also provide that till such time the power exchanges carry out Clearing and Settlement in terms of the proviso above, the power exchanges shall constitute a Settlement Guarantee Fund (SGF) Management Committee and shall invest the proceeds of SGF in safe investments and ensure that the principal amount is not at risk. The Commission further extended this time period by another year.</i></p> <p><i>5.6.3. In the coupled market scenario, the mechanisms for clearing and settlement may diverge. Till such time a separate Clearing Corporation is introduced, situations requiring cross-settlements between the exchanges are likely to occur.</i></p> <p><i>5.6.4. Thus, in the scenario of a coupled market,</i></p> <ul style="list-style-type: none"> <i>• While the power exchanges will be the counterparty to the market participants, would the Market Coupling Operator act as a counter-party to the power exchanges with regard to settlement rights and obligations?</i> <i>• Would it be advisable to allow the Market Coupling Operator to charge transaction fees from the power exchanges, which in turn charge related transaction fees from the market participants?</i> <i>• What should the grievance handling frame work be?</i> 	<p>function of MCO which would help in optimal utilization of resources. This would avoid extra burden on the market participants regarding the market coupling and they can continue to keep paying their respective choice of exchange the transaction fee.</p> <p>Further even if this Hon'ble Commission desires to assign a Third Party MCO/Super-Exchange, we would request this Hon'ble Commission to see that the overall transaction cost on the buyers/sellers to remain the same. The third party MCO and the exchanges should be required to settle the cost among themselves</p>
6.	<p>5.7. Changes in the settlement process</p> <p><i>5.7.1. Traders are already collecting bids from clients, submitting bids to exchanges, and doing the clearing and settlement. In fact, security maintained by traders is approximately double the cost of power purchased, i.e. maintain a weekly average margin</i></p>	<p>The idea of traders' bypassing the exchange and submitting the bids directly to the MCO seems to cause a major disruption in the whole system. Its better that the bids be submitted to the</p>



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	<p><i>equivalent to power purchased while maintaining a sufficient margin for net cleared volume for tomorrow. Under such a scenario, should traders be allowed to submit their bids directly to the market coupler to reduce the cost of power for trader clients, as the clients are presently paying margins to the trader and also bearing fees and margins of exchange?</i></p>	<p>exchanges which eventually share the bids with the exchange which would be acting as the MCO that time.</p> <p>Its better that the exchanges are allowed to retain their fees/margins from the buyers/sellers approaching them and would not charge for running the Market coupling Algorithm.</p> <p>This is because at present also the exchanges do not charge the clients for running the algorithms, the transaction fees & charges cover everything.</p> <p>For the sake of avoiding confusion and creation of multiple visible entities we would request this Hon'ble Commission to allow the exchange to act as MCO on rotational basis and allow them the role of continuing with the clearing & settlement function.</p> <p>This scheme of operation on the outer level would appear same to the market participants, only the internal functioning in the Algorithm running and clearance & settlement process within &</p>
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		<p>between the exchanges would change. The market participants can continue their dealing with the Traders/exchanges as they are performing at present.</p>
<p>7.</p>	<p>5.8. In which market segment should the coupling be introduced first?</p> <p><i>5.8.1. The market segments at present available on the power exchanges can be broadly categorized into collective and continuous transactions. The collective transactions (i.e. DAM and RTM) utilize uniform market clearing, wherein the aggregate demand and supply offers determine the cleared volume and price.</i></p> <p><i>5.8.4.....in collective transactions because a participant prefers to trade where the liquidity is higher, which shall ensure him both commensurate supply and a better price.</i></p> <p><i>5.8.5. In the case of continuous transactions, the buy bids and the sell bids are matched on a continuous basis with price-time priority. The participant behaviour here is different when compared to the collective transactions due to features like continuous matching. In this segment, all three exchanges seem to enjoy a good market share. The exchanges have introduced innovative products/ contracts/ bid types in this segment on their respective platforms, which provides a variety of avenues for the participants. This has made the segment attractive across the exchanges.</i></p> <p><i>5.8.6. Considering the above, is it imperative that market coupling be introduced in collective transactions segment to begin with?</i></p>	<p>We totally agree with this Hon'ble Commission's move of introducing coupling with the collective transactions.</p> <p>This is because in collective transactions while one exchange has witnessed measurable bids on both the demand and supply sides, the other two exchanges have not recorded similar bid volumes. Due to this, either most volume gets cleared on one exchange only, where counter supply/demand bids are available for matching, or else the prices discovered across the exchanges vary significantly.</p> <p>Thus for consumer interest and social welfare it has become necessary that a uniform price is discovered for all the exchanges operating in the country so that the consumers can also freely choose the exchange which give them better prices & services.</p>