

14-08-2020

To

**Sh. Saroj Kumar Jha, IAS**  
Secretary  
Central Electricity Regulatory Commission  
3<sup>rd</sup> & 4<sup>th</sup> Floor, Chanderlok Building,  
36 Janpath, New Delhi - 110001

Dear Sir,

**Sub: Comments on Draft CERC Power Market Regulations 2020**

This is in reference to the public notice issued by CERC on 'Draft Central Electricity Regulatory Commission (Power Market) Regulations, 2020' were invited by the Commission vide Public Notice No.L-1/257/2020/CERC dated 18th July 2020.

Working in the area of Power Market & Trading Analytics and Technology, and supporting various players in Power Trading and Market Participation, EMA Solutions strongly feel the need for a new regulatory framework, after a decade of experience under the old regulations, and welcome the Commission's move in that direction. We wish to highlight that given the importance of this regulation, a detailed Discussion Paper/Explanatory Memorandum would be apt, so that market participants could better understand the rationale & thinking behind the key changes proposed in the draft regulation, and thereby provide well-conceived suggestions/comments. Request the Commission to considerately utilize this historic opportunity to usher-in well-thought out & progressive market design changes conducive for the next decade of development, and aim for a more competitive, transparent, and de-regulated power market.

Our comments on the said notification are elaborated under Annexure-1 enclosed herewith. Kindly consider our views in consideration of the market interest.

Yours truly,



Victor Vanya B  
Director



#### About EMA

EMA Solutions Pvt. Ltd (EMA), is a technology focused New Delhi based firm, recognized by GoI under the flagship 'Startup India Scheme' (No: DPIIT34787), and is the first and only startup firm in India's Energy Analytics Space, aimed at offering new-age Analytical, Big-data & AI, Trading Technology, Forecasting, Market Advisory and Knowledge solutions to Energy & Power Markets.

Our team has a diverse and suitable collective experience of around 40 years in areas of Power Market Design, Power Trading & Advisory, RE, Price & Demand Forecasting using AI & Statistical Models, Portfolio Management of Discoms and Generators, Power Plant Management, Forecasting, SLDC Operations and Big Data Analytics & AI, with organisations like NTPC, IEX, PTC, USAID, Tata Power, Mercados EMI and Blue-Lotus.

## ANNEXURE-I

Reference/ Subject	Views / Comments
<b>Changes proposed in the draft regulation, and the rationale thereof</b>	<p>Power Market Regulations are one of the key regulations driving the Indian Power Market, with progressive market evolution centered around the same. The earlier regulations published in the year 2010 were very progressive for the time, and were forward looking, setting the tone for future market evolution for the decade. They helped bring-in the necessary transparency, and also guided the market in a progressive direction, with de-regulation, competitive market, transparency, encouraged new participants and aided wider market participation.</p> <p>With a new decade ahead, where RE Generation, EVs, Storage, DSM, DR, etc taking the lead, and where innovative services and market facilitative solutions are to be delivered, the Power Market Regulation is supposed to build further on the de-regulation, transparency and innovation aspects, and should promote competitiveness &amp; entrepreneurship. The existing draft seems to be an extension of the PMR 2010 in many aspects, making some updates to latest market changes, and is limited in foresight and vision. Also, Explanatory Memorandum failed to capture the market development thought process, and build on the vision, and has limited itself to mostly repeat the provisions of the draft regulation. A detailed Discussion Paper in this regard, detailing the market framework development till now in the last two decades, and the future design &amp; development prospects for next decade, would be an immensely helpful guide for the Indian Power Market, which would also aid the participants in better framing the responses to the draft regulations, and thereby participate in this exercise effectively &amp; meaningfully.</p>
<b>Definitions 2.1.(ai) Market Participants</b>	<p>The suggested definition for “Market Participants’ does not explicitly cover “<u>Clients of Power Exchange</u>”, as they form a critical and key role in the transaction value chain. Activities like Market Manipulation usually originate at Client level. Considering that Clients are the central actors for which these market provisions are centered around, they should be included as part of the definition.</p>
<b>Definitions 2.1.(ap) Over the Counter (OTC) Platform</b>	<p>The suggested definition specifies that “<i>Over the Counter (OTC) Platform</i>” is an <u>electronic platform for exchange of information amongst the buyers and sellers of electricity</u>;</p> <p>Considering this definition, we can derive that a <u>WhatsApp Group of Market Participants (buyers &amp; sellers)</u> exchanging power requirements and negotiating prices for short term OA procurement may even fall within the limits of interpretation.</p> <p>It is requested that a proper and definitive definition, specifying the distinctive and definitive role of the OTC Platform be devised, suitable to the envisaged role.</p>
<b>Definitions: Spot Market</b>	<p>Under the present definitions, we have clearly demarcated Term Ahead Market (TAM) as contracts with delivery of T+2 or more. Upto T+2, we have DAM, Intraday and Day-Ahead Contingency contracts which fall under the industry jargon of Spot Market. It is suggested to <u>provide the definition for Spot Market</u> also, so as to streamline the market terminology, and avoid confusion.</p>
<b>Definitions 2.1.(bf) Unpublished price sensitive information</b>	<p>As Market Splitting mechanism is adopted for DAM and RTM markets, <u>Net Transmission Corridor Availability</u> at the time of trade is a critical price sensitive information. As such, the same should be made part of the definition in explicit terms, so as to avoid ambiguity.</p>

<p><b>Intra-State transactions in Intraday, DAC and TAM Markets</b></p>	<p>It has been observed that in Continuous Trading in Power Exchanges, there are many instances where <u>Intra-State transactions</u> happen, wherein both buyer and seller belong to same State. In such instances, scheduling happens at SLDC level only, and <u>doesn't come under the purview of CERC</u>. The Commission may explicitly <u>specify the delivery, reporting and monitoring provisions</u> pertaining to such transactions, as most provisions of CERC, including on reporting, remain silent, leading to ambiguity in trading and under reporting.</p>
<p><b>Section 14: Net Worth</b></p>	<p>Net worth of Power Exchange is increased from Rs 25 Crores to Rs 50 Crores. There is <b>no rationale provided on why and how Rs 50 Crore is arrived at</b>. Considering the importance &amp; seriousness of such provisions, it is requested to provide the rationale (including how the number is arrived at) , as this provision impacts the competitive framework, and also an entry barrier with impact on investment decisions. The <b>methodology and template used by SEBI</b> to arrive at such decisions should be referenced, and followed to the extent applicable.</p> <p>The present regulations propose to <b>hive-off Clearing &amp; Settlement</b> from Power Exchanges, and in such a case PMR 2010 prescribed a Net Worth of Rs 5 Crores, as risk is lowered. As such, PMR 2020 should <b>specify a lower, risk-adjusted net worth requirement</b> for Power Exchange with C&amp;S function hived-off to Clearing Corporation. Suitable references should be taken from SEBI regarding the same.</p>
<p><b>Section 15: Ownership Structure of Power Exchange</b></p>	<p>Clause (b) specifies that “<i>A member or a client, directly or indirectly, either individually or together with persons acting in concert, shall not acquire or hold more than 5% of shareholding in the Power Exchange.</i>”</p> <p>In order to promote competition with entry of new Power Exchanges, it is essential that Market Participants (like Traders) are encouraged to naturally mature into Power Exchanges”. Considering the way <b>SEBI encourages entry of new players in Stock &amp; Commodity Markets by providing certain relaxations in the first few years, relaxation in shareholding for a period of atleast 3 years should be provided for new Power Exchanges</b>. Relevant framework, and provisions from <b>SEBI Regulations should be referenced by CERC</b>. Undue barriers restrict market growth and deprive the participants of the benefits of competition.</p> <p>Regarding the additional restriction of <b>including ‘Clients’ also to the limitation of 5% Shareholding</b>, it is to be noted that the Commission has permitted Clients to hold more than 5% shareholding in a Power Exchange till now. Restricting Clients suddenly adds to <b>Regulatory Uncertainty</b>, and will cause undue stress to investors who are Clients and have invested heavily in Power Exchanges. Such regulatory uncertainty further <b>dents the attractiveness of potential investors</b> in this segment, and limits entry of competitive players in this business. It is requested that the Commission may <b>implement the provisions on prospective basis</b>.</p>
<p><b>Section 20: Management of Power Exchange</b></p>	<p>Professionals with <b>experience in “Power Trading”</b> should also be considered, as this field as a profession has evolved in Indian power sector in the past two decades.</p>
<p><b>Section 23: Power Exchange transaction fee</b></p>	<p>The Commission sought to regulate the Fee of Power Exchanges, but there is <b>no transparent mechanism prescribed for, nor the basis of setting the same</b>. Whether it is going to be Cost+, or some other basis, should be clearly spelt. Open-ended provisions for such critical commercial provision may lead to <b>Regulatory Capture</b>, and also <b>discourage potential investors</b> in this business.</p> <p>Also, <b>no rationale or necessity for introducing this new provision is provided</b> by the Commission. It is requested that the Commission may <b>clearly spell out the regulatory roadmap for Power Exchanges</b>, so that some clarity for present and potential investors in the Power Exchange business could be gained, as any drastic or arbitrary regulatory changes in the future may result in further denting the attractiveness of this business, and <b>high regulatory risks have costs attached</b>.</p>

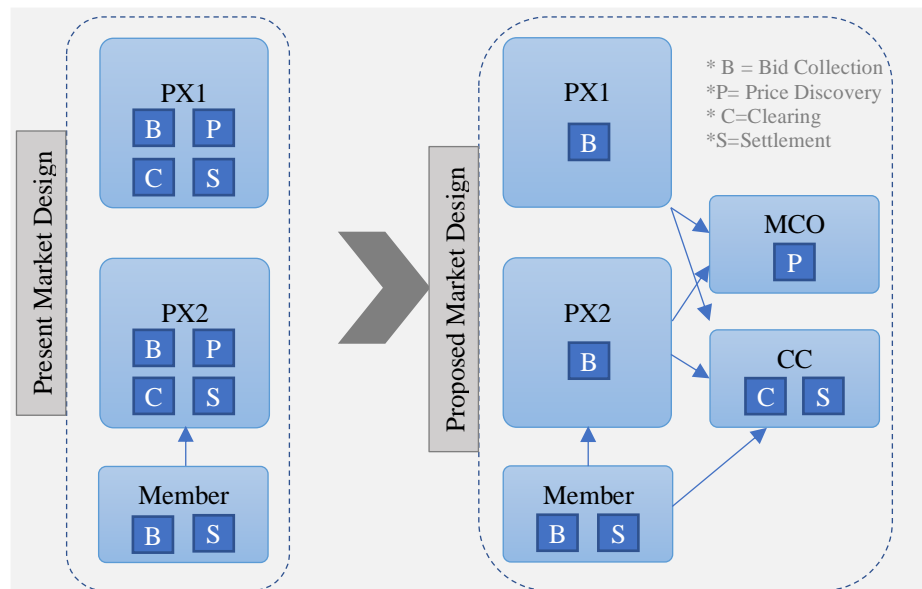
<p><b>Clause 24 (2): Power Exchange transaction fee</b></p>	<p><b>Facilitator Member</b> is regulated for <b>Service Charge of upto 2 paise/kWh</b>. Rationale and methodology for arriving at the same is not provided, as this is a sensitive regulatory provision which impacts investment and returns of new and existing firms, and setting commercial provisions arbitrarily is not called for from a national level Regulator. The commission may re-look into the same and <b>provide clear rationale and methodology for arriving at the same</b>.</p>				
<p><b>Market Advisory Services by Traders/Members</b></p>	<p>Trading / Bidding related advisory services are a <b>natural extension of professional expertise of Traders and Exchange Members</b>, as they are professionally, and by virtue of the role they play, well positioned to provide such services in the Power Sector. As such it is <b>not healthy for the sector to restrict Traders/Members</b> (including Facilitator Members) from <b>providing advisory services to its clients related to power prices and the follow-on bidding strategy</b>. With regards to the concern specified in the EM (clause 3.4.10.4.) that Traders/Members are privy to certain unpublished price sensitive information of clients that may lead to potential conflict of interest situations, it is requested that the Commission may <b>impose certain transparency and disclosure provisions so as to avoid any conflict of interest situations</b> in providing advisory services to Clients, and proper disclosures are made. <b>Examples from Financial Markets could be considered by the Commission, in this regard</b>.</p>				
<p><b>Information Dissemination by System Operator</b></p>	<p>It is a welcome step to prescribe that market information is to be provided by Power Exchanges (Section 31). In addition, it is to be noted that along with the information shared by Power Exchanges, information by <b>System Operator</b> like <b>Transmission Flow, TTC &amp; ATC availability, and Net Corridor Availability</b> (at any given time of trade/bidding) forms part of <b>the critical data/decision parameter for bidding on Power Exchange markets</b>. As both System Operator and Market Operator information disclosures are intertwined for bidding purpose, the <u>Commission</u>, through PMR (Open Access Regulations are silent on this), <u>should mandate information dissemination by System Operator also, in addition to Market Operator (Power Exchanges)</u>.</p> <p>For example, <b>POSOCO/NLDC has stopped providing real-time information on Inter-Regional Corridor Flows post the introduction of RTM</b>. As RTM trading requires market participants to take note of the real-time corridor-flows while bidding, such sensitive information should be mandated for public access.</p>				
<p><b>Part-5: Market Coupling</b></p>	<p>Market Coupling is a drastic change in the area of market design, as we followed till now, and this <b>new change should be tread carefully</b>, as there may be destructive implications, with <b>drastic &amp; irreparable impact on key market institutions</b>.</p> <p>The Commission should quantify the benefits claimed for adopting Market Coupling, and also weigh-in all the pros and cons in detail, and share the same for public debate/comments. Once we move in this path, there is no return, and as such it is wise to <b>take calculated and reversible steps</b>.</p> <p>The benefits/objectives described in the draft are as below, with our respective comments:</p> <table border="1" data-bbox="496 1653 1453 2000"> <thead> <tr> <th data-bbox="496 1653 772 1742">Objective of Market Coupling (as specified in the draft)</th> <th data-bbox="772 1653 1453 1742">EMA Comments</th> </tr> </thead> <tbody> <tr> <td data-bbox="496 1742 772 2000">1) Discovery of uniform market clearing price for the Day Ahead Market or Real-time Market or any other market as notified by the Commission</td> <td data-bbox="772 1742 1453 2000">Considering that over 99% of DAM &amp; RTM transactions happen in one Power Exchange, discovery of uniform price is not an issue at present. Also, for benchmarking Derivatives, DSM, etc, a single price reference can be easily worked out by evolving appropriate mathematical formulations using weights.</td> </tr> </tbody> </table>	Objective of Market Coupling (as specified in the draft)	EMA Comments	1) Discovery of uniform market clearing price for the Day Ahead Market or Real-time Market or any other market as notified by the Commission	Considering that over 99% of DAM & RTM transactions happen in one Power Exchange, discovery of uniform price is not an issue at present. Also, for benchmarking Derivatives, DSM, etc, a single price reference can be easily worked out by evolving appropriate mathematical formulations using weights.
Objective of Market Coupling (as specified in the draft)	EMA Comments				
1) Discovery of uniform market clearing price for the Day Ahead Market or Real-time Market or any other market as notified by the Commission	Considering that over 99% of DAM & RTM transactions happen in one Power Exchange, discovery of uniform price is not an issue at present. Also, for benchmarking Derivatives, DSM, etc, a single price reference can be easily worked out by evolving appropriate mathematical formulations using weights.				

	<p>If the Commission's concern is to avoid a future scenario where two or more Power Exchanges operating with healthy market share, and emanating different Prices, it is to be noted that current Power Exchange Market has a share of only 4% in the total power generation, the PX DAM is a buyers' market with only 5-10 large buyers having share of over 50% buy side volume influencing the DAM market price discovery, it is difficult for any second Power Exchange to maintain price convergence due to liquidity issues. As the market size grows, or as the buy side liquidity increases, we can expect automatic price convergence between Power Exchanges without any Market Coupling, and any international market expert can vouch for the same. The best antidote is that the Commission should strive for creating a competitive and truly market environment, and the market will automatically rectify any such imperfections which we are concerned about at present.</p>
<p>2) Optimal use of transmission infrastructure</p>	<p>As over 99% of DAM &amp; RTM transactions happen through a single Power Exchange, optimal utilization is already taking place. The commission may verify the same by computing Social Welfare difference between the current isolated PX markets/auctions, and a unified auction result by clubbing bids from both the Power Exchanges.</p> <p>Optimal use of Transmission can be an issue if Congestion is a frequent occurrence, and where the smaller Power Exchange holds atleast 20% market share. In such a scenario, optimality for transmission use can be achieved by designing an auction based transmission corridor allocation mechanism between Power Exchanges</p>
<p>3) Maximisation of economic surplus, after taking into account all bid types and thereby creating simultaneous buyer-seller surplus</p>	<p>As over 99% of DAM &amp; RTM transactions happen through a single Power Exchange, maximization of economic surplus is already taking place in the current scenario.</p> <p>If multiple auctions happen in different Power Exchanges, and there is no Price Convergence (this is primarily a liquidity related offshoot), the least intrusive way to achieve economic surplus maximization is to increase liquidity in the market. By doing so, though auctions happen in isolation in various Power Exchanges, liquidity will naturally lead to price convergence, and hence collective economic surplus will automatically be achieved. Considering that only 4% of the generation is traded in DAM &amp; RTM Auctions, increasing the market share by ensuring that participant number (especially on the buy side) is high enough to not let a handful of players to exercise market power, will automatically solve the issue.</p>

The three objectives stated in the draft can be achieved, and the present monopoly issues could be solved organically without the need of an artificial mechanism of Market Coupling, by bringing-in changes in the competitive market framework, and eliminating entry barriers for new PX entrants (key being shareholding barrier). The Commission may make appropriate consultations with experienced international market experts in this regard, and thereon publish a thorough discussion paper on the pros and cons of the suggested move.

**Introducing MCO will eventually lead to the present monopolistic structure only:**

Once MCO comes into play, and with Clearing & Settlement functions transferred to Clearing Corporation, Power Exchanges will lose all the institutional capacity w.r.t their key offerings i.e. Price Discovery and Financial Settlement and become mere bid aggregators, which demotes them to the level of specialization of the current Facilitator Members. They won't be left with any suitable function to justify the title of 'Power Exchange', and hence won't be able to command any respectable Fee. Also, as bid collection/aggregation is no technically complex task, which all current members are used to, and there will be no commercially viable reason for the then Members to channel their bids to Power Exchanges and pay extra fee. Rather it will be appealing for the Members to take the title of Power Exchange and route bids directly to MCO. Eventually there will be one MCO and many Members, a.k.a Power Exchanges, in the market, which will finally lead to the same situation which we are in, but with a different Power Exchange (a.k.a MCO).



Reading through the draft provisions pertaining to functions of MCO, it seems that a public-owned entity, with powers to issue Procedures, will be made the MCO. It is not clear why the Commission wants to create a new MCO, given that the present Power Exchanges have matured a lot over a decade, and invested heavily in building technical and professional capacity, to operate Matching Engines and Clearing & Settlement Systems. New institutional capacity may take time to achieve the technological maturity, and increase a layer of transaction cost, complexity, and transaction time. Public Institutions have certain well-known rigidities and are not conducive for innovation and entrepreneurship that propelled the current spot market to fame; and these critical ingredients of innovation and entrepreneurship are more critical for the next decade of growth in competitive market. It is wise to utilize the present institutional capacities to operate MCO, by **assigning Power Exchanges to operate as MCO on rotation basis**, as is the practice where Market Coupling is implemented, say in EU. This way, we will **retain the present institutions, avoid irreparable damage, have window for reversible market design options, and promote entrepreneurship, at the same time experiment with the suggested design changes.**

It is requested that the Commission may have a serious re-consideration of the MCO mechanism, as the same may lead to irreparable damage to the entire power market.

<p><b>Part-6: Platform</b></p> <p><b>OTC</b></p>	<p>The necessity of OTC platforms, objectives and need of regulation are not clearly spelt out in the draft regulation, not in EM. With reference to the functions/objectives specified for OTC Platforms in section-42, information sharing platforms cannot be called OTC platforms, as OTC platforms cannot be devoid of price discovery, whose primary aim is to offer trading in non-standard contracts as against Power Exchanges. OTC Platforms may also fall under PSR Act, as most of them facilitate financial settlement also.</p> <p>There is no rationale provided for fixing the net-worth at Rs 50 Lac, and it seems arbitrary to discourage smaller firms. The commission may clearly spell out the basis for fixing the same at Rs 50 Lac.</p> <p>In addition, request the commission to have a relook at the restrictive provisions in clause 44 (2), and permit the existing Market Participants also to provide such platforms, as most stated objectives of OTC Platforms are also supposed to be fulfilled by Traders (as they are envisaged in the sector), as the same is natural part of their trading activity.</p>
<p><b>Section 32: Market Surveillance by Power Exchange</b></p>	<p>For a dynamic market operating on Exchanges, Regulator should have qualified staff, and appropriate analytical tools to monitor the market on a frequent and regular basis, so that trust on the system is bolstered. Using quarterly report on market analysis for monitoring by Regulator doesn't serve the purpose, where dynamic markets close to real-time are taking over. It is suggested that considering best-practices in advanced Power Markets, and making use of the availability of IT &amp; Analytics tools, <b>the Commission (Economics Division) should use daily/real-time based analytics &amp; reporting tools to monitor the markets close to real-time.</b> Also, <b>view-only terminals of both Power Exchanges</b> should be accessed by both CERC (Economics Division) and NLDC, so as to have an inclusive monitoring of market.</p>