

No. IEX/RA/033/20-21

Date: 15th Aug, 2020

Τo,

The Secretary Central Electricity Regulatory Commission 3rd& 4th Floor, Chanderlok Building 36, Janpath New Delhi - 100 001, Fax: 011-23753923

Sub: IEX Comments on Draft Central Electricity Regulatory Commission (Power Market) Regulations, 2020.

Dear Sir,

This has reference to Public Notice dated 18.07.2020 inviting suggestions and comments from stakeholders on the draft notification of Central Electricity Regulatory Commission (Power Market) Regulations, 2020.

Accordingly, comments on behalf of Indian Energy Exchange are hereby attached hereto as Annexure -I (Detailed comments on Draft PMR) and Annexure-II (Clause wise comments on Draft PMR 2020) for kind consideration of the Hon'ble Commission:

Thanking You!

Yours Sincerely,

Jogendra Behra Vice President (Market Design & Economics)

BEFORE HON'BLE CENTRAL ELECTRICITY REGULATORY COMMISSION

AT NEW DELHI

IN THE MATTER OF:-

Draft Central Electricity Regulatory Commission (Power Market) Regulations, 2020.

COMMENTS AND SUGGESTIONS ON BEHALF OF INDIAN ENERGY EXCHANGE LIMITED

1. On 18.07.2020, the Draft Central Electricity Regulatory Commission (Power Market) Regulations, 2020 ("**Draft PMR 2020**") was issued by this Hon'ble Commission seeking to supersede and replace CERC (Power Market) Regulations, 2010. This Hon'ble Commission has issued the public notice inviting comments/suggestions from stakeholders, due on 07.08.2020, subsequently extended till 14.08.2020.

2. Indian Energy Exchange Limited ("**IEX**") is herewith submitting its comments and suggestions on the Draft PMR, 2020 for consideration by this Hon'ble Commission, divided into the following five sections: -

- (a) Statutory Objectives.
- (b) Role and functions of Power Exchanges.
- (c) Regulatory and Economic Rationale and Context of Power Market.
- (d) Proposed Amendments and Critique.
- (e) Conclusion

A. Statutory Objectives

3. Before addressing the specific concerns of IEX with respect to the changes proposed by way of the Draft PMR 2020, it is imperative to appreciate the legislative and policy objectives which govern the subject matter, *viz*.:-

(a) The Electricity Act promulgated in 2003 ("Electricity Act") has 'promotion of competition' as one of its primary objectives. Several measures viz. restructuring of erstwhile SEBs, de-licensing of Generation, competitive bidding through tariff determination, non-discriminatory open access etc. have been considered to create independent economic entities across different functions and provide them a conducive environment for competition. It was envisaged that the competition amongst different economic entities in pursuit of their self-interest would incentivize them to bring efficiency & innovation in their offerings eventually benefiting the sector and consumers at large.

- (b) The Electricity Act entrusted the task of development of power market to Appropriate Commission. It further stipulated that this Hon'ble Commission while carrying out its statutory functions has to be guided by factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments [Please refer Sections 60, 61(c) and 66 of the Electricity Act]. The Electricity Act has entrusted this Hon'ble Commission with the powers under Sections 178(1) and 178(2)(y) to notify Regulations for development of the power market.
- (c) National Electricity Policy was notified on 12.02.2005 and Tariff Policy on 06.01.2006 which was subsequently amended on 28.01.2016, have also laid a lot of emphasis on promoting competition in the sector. The relevant clauses of the statutory National Electricity Policy and Tariff Policy are extracted below:-
 - (i) National Electricity Policy 2005 ('NEP 2005'): -

"1.6. Electricity Act, 2003 provides an enabling framework for accelerated and more efficient development of the power sector. The Act seeks to encourage competition with appropriate regulatory intervention. Competition is expected to yield efficiency gains and in turn result in availability of quality supply of electricity to consumers at competitive rates.

5.3.3.....When open access to distribution networks is introduced by the respective State Commissions for enabling bulk consumers to buy directly from competing generators, competition in the market would increase the availability of cheaper and reliable power supply.

5.4.7 One of the key provisions of the Act on competition in distribution is the concept of multiple licensees in the same area of supply through their independent distribution systems.

5.7.1 To promote market development, a part of new generating capacities, say 15% may be sold outside long-term PPAs. As the power markets develop, it would be feasible to finance projects with competitive generation costs outside the long-term power purchase agreement framework. In the coming years, a significant portion of the installed capacity of new generating stations could participate in competitive power markets. This will increase the depth of the power markets and provide alternatives for both generators and licensees/consumers and in long run would lead to reduction in tariff. For achieving this, the policy underscores the following: -

a. It is the function of the Central Electricity Regulatory Commission to issue license for inter-state trading which would include authorization of trading throughout the country.

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- d. <u>Development of power market would need to be undertaken by the</u> <u>Appropriate Commission in consultation with all concerned.</u>
- e. The Central Commission and the State Commissions are empowered to make regulations under section 178 and section 181 of the Act respectively. <u>These regulations will ensure implementation of various</u> <u>provisions of the Act regarding encouragement to competition and</u> <u>also consumer protection</u>. The Regulatory Commissions are advised to notify various regulations expeditiously.
- f. Enabling regulations for inter and intra State trading and also regulations on power exchange shall be notified by the appropriate Commissions within six months."

5.8.3 [..] The amount of surcharge and additional surcharge levied from consumers who are permitted open access should not become so onerous that it eliminates competition that is intended to be fostered in generation and supply of power directly to consumers through the provision of Open Access under Section 42(2) of the Act....

5.8.6 Competition will bring significant benefits to consumers , in which case, it is competition which will determine the price rather than any cost plus exercise on the basis of operating norms and parameters. All efforts will need to be made to bring the power industry to this situation as early as possible, in the overall interest of consumers."

(ii) Tariff Policy dated 28.01.2016: -

*"***4.0 OBJECTIVES OF THE POLICY**

The objectives of this tariff policy are to:

[..]

(d) Promote competition, efficiency in operations and improvement in quality of supply;

5.1 Introducing competition in different segments of the electricity industry is one of the key features of the Electricity Act, 2003. Competition will lead to significant benefits to consumers through reduction in capital costs and also efficiency of operations. It will also facilitate the price to be determined competitively.

5.9 The real benefits of competition would be available only with the emergence of appropriate market conditions. Shortages of power supply will need to be overcome. Multiple players will enhance the quality of service through competition.

6.2 [..] The procurer shall communicate, at least twenty-four hours before 00.00 hours of the day when the power and quantum thereof is not requisitioned by it **enabling the generating stations to sell the same in the market**"

4. It is evident from the above that the Electricity Act, National Electricity Policy and Tariff Policy which are the governing statute and policies for the sector providing long term vision for the sector have given primacy to competition for efficiency improvement. The above is further summarized given below: -

- (a) Electricity Act provides an enabling framework for accelerated and more efficient development of the power sector by encouraging competition in different segments of the electricity industry with appropriate regulatory intervention.
- (b) Competition is expected to yield efficiency gains and significant benefits to consumers by availability of cheaper and reliable power supply.
- (c) One of the key provisions of the Electricity Act on competition is having multiple licensees operating independently in the same area.
- (d) Regulation ought not to be so onerous/stringent that it eliminates competition in the sector.
- (e) The real benefits of competition would be available only with the emergence of appropriate market conditions and multiple players, which will enhance the quality of service. Thus, it is competition which shall determine the price rather than any costplus exercise.

5. In view of the above, it is submitted that this Hon'ble Commission while embarking upon the statutory duty of market development has to ensure that the market mechanism and competition is further bolstered in the process. This is in consonance with the widely established economic principle that 'competition' is far superior to 'regulations' in eliciting efficient response from the market participants. Further, endeavour has to be made to promote competition across all the levels of the electricity value chain, wherever any transactions/choice making is involved viz. between buyers and sellers, between intermediaries in the market, between different marketplaces etc. to maximize the efficiency gains.

B. Role and Functions of Power Exchanges and Power Market Regulations 2010

6. As mandated under Section 66 of Electricity Act and 5.7.1 of National Electricity Policy, this Hon'ble Commission has taken various initiatives to encourage competition in the power market including introduction of Power Exchanges through Guidelines & Power Market Regulations 2010.

7. This Hon'ble Commission had initially published a Staff Paper on "Developing a Common Platform for Electricity Trading" on 20.07.2006 proposing the broad regulatory framework for the Power Exchanges. This Hon'ble Commission conducted wide stakeholder's consultations and based on the deliberations, issued the "Guidelines for Grant of Permission

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for setting up and operation of Power Exchange" ("Guidelines") vide Order dated 06.02.2007. Subsequently, this Hon'ble Commission proposed the Draft Power Market Regulations on 22.09.2009 and after conducting the stakeholder's consultation notified the Power Market Regulations on 20.01.2010 ("PMR 2010"). The Guidelines and PMR 2010 along with their Explanatory Memorandum/Statement of Reasons have provided the vision & macroobjectives for the development of power market along with the role & function of the Power Exchanges. These are briefly discussed below.

(a) This Hon'ble Commission in its Statement of Reasons for the Guidelines dated 18.01.2007 passed in Suo-motu Petition No. 155 of 2006 while deliberating upon development of a common platform like Power Exchange for electricity trading held that the <u>policy framework should make room for establishment of multiple power</u> <u>exchanges.</u> Further, the Hon'ble Commission held that the approach <u>shall be to allow</u> <u>operational freedom to Power Exchanges within the overall framework.</u> Thus, the Commission will keep away from governance of Power Exchange, which would be required to add value and provide quality service to the customers. Regulation would be minimal and restricted to requirements essential. In essence, the Order dated 18.01.2007 evinces the core approach adopted by this Hon'ble Commission for setting up Power Exchanges and expectation from market. The relevant extract of the Order is as under: -

> "14. ... The Commission feels that the policy framework should make room for establishment of more than one power exchange at the national level and also have the provision for having second-tier power exchanges at State/regional level commensurate with the market development/perception...."

<u>...</u>

20. The general approach of the Commission is to allow operational freedom to the PX within an overall framework. The regulation would be minimal and restricted to requirements essential for preventing derailment/accidents and collusion. Private entrepreneurship would be allowed to play its role. The Commission shall keep away from governance of PX, which would be required to add value and provide quality service to the customers.

21. As a logical consequence of the above (voluntary participation, no mandate for one PX, no restriction regarding ownership, and minimal regulation), **the Commission would not like to impose any management structure, rules or procedures for PX**. We would let the promoters develop these, and submit them for Commission's approval. It is important that the rules and procedures cater to the requirements of PX customers. As such, it is for the PX promoters to have a serious dialogue with their prospective clients, and determine what their pragmatic expectations are." (b) This Hon'ble Commission, while specifying the "Guidelines for grant of permission for setting up and operation of Power Exchange" by suo-motu Order dated 06.02.2007 in Petition No. 155 of 2006, held that the Commission seeks to encourage Power Exchange to emerge as a market-based institution for providing price-discovery and price-risk management to the generators, distribution licensees, traders, consumers and other stakeholders. Relevant extracts of the Order dated 06.02.2007 are: -

"3. In keeping with the Commission's approach towards development of power trading market with minimal regulations, the Commission for the present does not propose to prescribe any particular organizational structure of the Power Exchange or need for licensing for establishment and operation thereof. <u>The</u> <u>Commission seeks to encourage Power Exchange to emerge as a market-based institution for providing price-discovery and price-risk management to the generators, distribution licensees, traders, consumers and other <u>stakeholders</u>. The promoters shall be required to develop their own model of the Power Exchange and seek permission from the Commission before start of operation. However, the promoters need to keep in mind the following broad guidelines while developing the Power Exchange, namely:</u>

- (a) De-mutualized form of organization;
- (b) Reliable, effective and impartial management;
- (c) Ring-fencing between ownership, management and participation;
- (d) Investment support from the investors including institutional investors;
- (e) Transparency in operation and decision-making;
- (f) Computerized trading and clearing system;
- (g) Efficient clearing settlement and guarantee system;
- (h) Effective trade information dissemination system."
- (c) This Hon'ble Commission in its Statement of Reasons (SoR) to Power Market Regulations notified on 20.01.2010 provided the vision for the power market development in the country. The Hon'ble Commission has *interalia* provided the following macro objectives for the market development:

"3.4 To promote competition, efficiency and economy in Power Markets 3.5 To create level playing field between different type of entities"

It was envisaged that in the initial 3-4 years the power players will trade a substantial part of 15% of their capacity and in medium term there would be efficient buying and selling of power not tied up in PPAs. Further it was envisaged that the derivatives market will be introduced when the spot market would achieve adequate liquidity and robust price discovery.

(d) This Hon'ble Commission continued with the approach of "multiple exchange model" and a "principle-based regulations" adopted while specifying the Guidelines. Relevant extract of the SoR to PMR 2010 dated 20.01.2010 are as under: "7.2. ...The approach to this regulation has been to have <u>"principle-based</u> regulation", manage the macro picture with adequate safeguards and leave <u>micro-management to participants</u>. This will provide enough space for innovation by markets"

8.4.2. ... Taking a broad approach that regulations should provide framework and leave the micro management to Power Exchanges and recognizing that risk management will be the obligation of Power Exchanges, we have provided that the size of the SGF shall be at the discretion of the Power Exchanges. They may decide it based on the turnover value, open position of trades, risk management methodology and margining system they adopt and finally the risk appetite of the Exchange....

8.13.2. As discussed in foregoing paragraphs, **Risk Management has been now** *left to the Power Exchanges*. They can use any suitable risk management techniques and tools to asses the risk and margin accordingly. This leaves *sufficient space for Power Exchanges to innovate and adopt risk management principles based on its risk appetite.*

8.14.2. After considering the suggestions and comments received, creation of Clearing Corporation has been made voluntary and left to the discretion of the Power Exchange. However, Clearing Corporation would be mandatory for dealing in derivatives, once permitted by Commission."

- (e) PMR 2010 has envisaged the Power Exchanges to provide a neutral platform and efficiently discover price. Regulation 10 of PMR 2010 is extracted below:
 - *"10. A Power Exchange shall function with the following objectives:*
 - (i) Ensure, fair, neutral, efficient and robust price discovery
 - (ii) Provide extensive and quick price dissemination
 - (iii) Design standardized contracts and work towards increasing liquidity in such contracts"

Further, PMR 2010 has provided flexibility to the Power Exchanges to introduce any innovation in the price discovery in DAM as long as it adheres to the principle of social welfare maximization as extracted below.

- *"11. A Power Exchange shall adopt the following market design in case of day ahead market:-*
 - A. Price Discovery

..."

- (i) The economic principle of social welfare maximization and to create buyer and seller surplus simultaneously during price discovery.
- (f) The PMR 2010 has envisaged that the role of Power Exchanges would transform with time increasing the ambit of its role. Relevant extract of the SoR to PMR 2010 is provided below:

"2.6. It is expected that the role of Power Exchanges would transform with time. From the present main purpose of acting as price signal for investments, it will then have twin role of providing price signal and act as risk transfer platform."

8. Thus, this Hon'ble Commission initially through the Guidelines and then subsequently through PMR 2010 has envisaged a broad regulatory framework for the functioning of power exchanges as summarized below:-

- (a) Multiple exchange framework with no entry barriers to new entrants, i.e., it is open for any entity to enter the market so long as the criteria prescribed by the Hon'ble Commission is met.
- (b) Adoption of minimal and proportionate approach regarding regulating the Power Exchanges i.e., Principle Based Regulations with micro-management left to the Exchanges through Business Rules & Bye Laws to be approved by this Hon'ble Commission.
- (c) Power Exchanges to provide a neutral platform and discover prices in an efficient manner providing pricing signal for allocation of resources
- Power Exchanges can introduce new product with prior approval of the Commission.
 Power Exchanges can subsequently change the specifications of the product (barring the ones provided in the Regulations) with intimation to the Commission.
- (e) Operational freedom to the Power Exchanges to bring innovation in the market. Price discovery (as per market forces), clearing and settling of transactions and management of counterparty guarantee risks being within the sole purview of the Power Exchanges. The idea behind this was to provide enough space and an enabling framework to Power Exchanges for innovation of new products and risk management.
- (f) Promoting competition amongst the market participants as well as between the power exchanges to enhance efficiency in the market and incentivize the power exchanges to bring innovation in product development and efficient platform.
- (g) Regulatory oversight through Market surveillance Committee, Risk Management Committee to monitor whether the market is functioning within the broad framework of the PMR 2010.

9. Therefore, it is submitted that this Hon'ble Commission while framing the PMR 2010 has envisaged the Power Exchanges to play a crucial role for development of power market in the country. PMR 2010 has provided the principle-based regulations and given the operational freedom to the Power Exchanges to develop their IT infrastructure, Price discovery algorithm, clearing settlement & risk management mechanism etc. to provide an efficient trading platform for the market participants. It was envisaged that the Power exchanges will carry out robust price discovery and provide pricing signals for efficient allocation of resources. Power Exchanges shall also propose new standardized contracts and work towards increasing liquidity in such contracts. Further, PMR 2010 has provided a multi exchange model and has

envisaged that the competition amongst the power exchanges will bring the efficiency improvement and innovation in marketplace.

C. Regulatory and Economic rationale and context of Power Market

Re. Value Proposition of Power Exchange

10. Based on the Guidelines, this Hon'ble Commission has allowed two Power Exchanges to function namely Indian Energy Exchange ("IEX") and Power Exchange of India Limited ("PXIL") vide Orders dated 09.06.2008 and 30.09.2008 respectively. This Hon'ble Commission vide the said Orders has approved the Business Rules and Bye Laws for the both the Power Exchanges based on which the Power Exchanges were required to carry out their day to day operations.

11. It is submitted that the broad regulatory framework along with the potential to create value for itself in a competitive environment has spurred the Power Exchanges particularly IEX to perform and contribute towards the objectives sought to be achieved by PMR 2010. During last 12 years of operations, IEX with its continuous effort, sheer commitment, constant innovation and capital infusions has performed its functions viz. price discovery, clearing & settlement, risk management etc. in the manner as provided under PMR & Business Rules & Bye Laws and has contributed significantly towards the overall development of the market. The contribution of power exchanges and IEX in particular has been briefly discussed below:

(a) Wide Array of Products and State of Art Technology Platform - IEX has over a period developed state of art technology platform making available different products across different timelines up to 11 days to enable the market participants trade as per their specific requirements. Presently, it is offering contracts under Day Ahead Market (DAM), Term Ahead Market – Daily Contracts and Weekly Contracts (TAM), Intra Day, Day Ahead Contingency contracts. Recently, IEX has launched the Real Time Market under the aegis of this Hon'ble Commission. Besides, IEX is also providing trading avenues for Renewable Energy Certificates (RECs) and Energy Savings Certificates (Escerts) for promotion of renewable energy and energy efficiency under PAT scheme.

IEX has recently introduced the new bid types (Minimum Quantity Bid, Profile Block Bid) in the DAM to meet the specific requirement of cold start generating stations & renewable generators. Further, IEX has filed petition before this Hon'ble Commission for introduction of Green Term Ahead Market and Gross Bidding facilities which is pending approval. The petition for introduction of Green Term Ahead Market is pending since 26.11.2018. It is respectfully submitted that the approval could have been faster had the current regulatory framework provided flexibility in introduction of new products.

In order to ensure that the technology platform has state of art facilities for efficient results better user interfaces, and MIS & report generation etc., IEX has been constantly incurring capex and opex to upgrade its technology platform. During last 12 years of its operations, IEX has approximately invested an amount of Rs. 300 crores in its technology platform and maintaining a large in-house development team to continuously upgrading it to stay ahead in the curve.

(b) Efficient Price Discovery & Pricing Signal to the Market: The Market Clearing Price (MCP) in DAM is discovered through the intersection of aggregated demand and supply curves based on social welfare maximization principles. The price is discovered purely based on market forces i.e. interplay of demand and supply forces in the platform. With the increase in volume the prices have steadily declined over the period and remained in the range of Rs. 3-4/unit. Further, it is pertinent here to highlight that the average prices discovered in the exchange platform has consistently remained lower than the average prices arrived at in the bilateral market. The trend in price discovery is provided in the graph below:

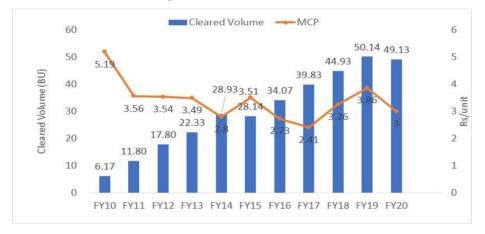


Figure 1: MCP and MCV of IEX



Figure 2: Avg. IEX Price vs. Bilateral Market in Short Term

Social welfare which gives the total surplus of consumer and producer in a market, is a key indicator of the efficacy of the market design and price discovery thereof. The social welfare generated by IEX during last 2 years i.e. FY 19 and FY 20 is Rs. 21,172, Rs 15,346 respectively which sums up to Rs. 36,518 crores. This essentially captures the benefit accrued to both buyers and sellers on account of their participation in the exchange platform.

The participation of large number of buyers and sellers in the market has ensured efficient and robust price discovery in the market. This has also enabled the IEX to provide efficient price signal to the market for allocation of resources which can be observed in the following phenomenon in recent past:

- (i) Discoms and OA consumers using the platform to optimize their costs As the prices have comparatively remained low and with surplus scenario, the Discoms & OA consumers are utilizing the exchange for optimizing their power procurement cost. The recent increase in power purchase by Discoms during Covid-19 is a case in point. During the national lock down as the prices reduced in power exchanges/IEX, various Discoms have utilized this opportunity to optimize their power procurement cost. It has been reported in national media that states viz. AP, Telengana, Maharashtra, Gujarat etc. have increased their power procurement from the exchange platform by backing down their costlier plants (reserve shut down) which has resulted into huge cost savings for the concerned states.
- (ii) Discoms are reluctant to sign long term PPAs having fixed payment obligations IEX has provided a viable alternative for procurement of power to meet the demand on a Day Ahead basis. Thus, Discoms could avoid buying under new take-or-pay contracts. The trend is quite apparent in the recent times when it has been observed that many Discoms whose PPAs have expired are reluctant to or have not signed long term PPAs having fixed payment obligations.
- (iii) Reduction in Congestion in Transmission Corridor Significant investments in transmission system has resulted in a congestion free transmission corridor and One Grid One Price. It is pertinent to note that the 'Market Splitting' mechanism used by the Power Exchanges to address the transmission congestion between different bid areas/inter-regional transmission link has no doubt played its role in giving signal for transmission investment. The congestion has reduced from 15% in FY 2013 to 0.4% in FY 2020.

(c) **Market Development:** When the Day Ahead Market was introduced in 2008, it was a completely new concept for the market participants with lot of skepticism around it. However, as the market development is aligned with the interests of the Power Exchanges, it has incentivized the Power Exchanges to put effort towards the same. Particularly, IEX has put significant effort and cost towards market development. IEX has taken several measures viz. extensive information dissemination through Workshops, Seminars, Webinars etc. and handholding through Training sessions etc. to promote participation from Discoms, Gencos, and Open Access consumers. Presently, more than 6600 participants are registered on IEX from 29 States, 5 Union Territories (UTs). Over 4,800 registered participants were eligible to

trade electricity contracts and over 4,400 registered participants were eligible to trade RECs, as of February 2020. Out of participants registered to trade electricity contacts include 56 distribution companies, over 500 electricity generators and over 4,200 open access consumers. As of February 2020, in addition to participants who traded electricity contracts, participants registered to trade RECs included over 1,100 renewable energy generators and over 3,200 industry and corporate customers. The benefiting Open Access consumers belong to various industries such as metal, food processing, textile, cement, ceramic, chemicals, automobiles, information technology industries, institutional, housing and real estate and commercial entities. IEX has a highly qualified dedicated team for market development physically located across all the states in the country. As a result of such elaborate and intense market development efforts, the participation and the transaction volume (25% year on year growth) has increased over the years which is one of the key objectives of Govt. and this Hon'ble Commission as set out in various policy & regulatory documents.

In this regard, it is pertinent to draw attention to the recent market development efforts of IEX towards implementation of Real Time Market (RTM). This Hon'ble Commission has issued the framework for RTM and directed the Power Exchanges to implement RTM from 01.06.2020. In order to ensure success (liquidity) of the RTM, IEX has conducted extensive market development exercises through conferences, webinars, mock trading sessions etc. to ensure that the stakeholders are aware of the benefits of RTM and know how to gainfully utilize the same. Approx. 63 stakeholder consultation sessions (including combined sessions with NLDC) were conducted all across the country to widely publicize the market, the details which are provided in the Table below:

	PRE RTM-LAUNCH	POST RTM LAUNCH		
25 DISCOM	19 BYPL, BRPL, TPDDL, HPCC, UPPCL, RUVNL, JSKPDC, GUVNL, MSEDCL, AEML, PPMCL, APPCC, TSPCC, PCKL, KSEB, TANGEDCO, WBSEDCL, GRIDCO, JBVNL	6 With Member- UPCL, PSPCL, BSPHCL Other: DVC, TPC, ASSAM		
15 Generator	15 Adani, NLC, Teesta NTPC- Meeting done with NVVNL. Jaypee, DB Power, JSW Energy, Jhabua, Tashiding, Sembcorp, Essar Power, JPL, Balco, MB, JITPL			
<mark>6</mark> Trader	4 PTC, Kreate, NVVNL, Manikaran	2 TPTCL, APPCL		
17 Industrial Group	2 LAFARGE, ITC	15 Salem Mines, SRM, Travancore, Carburundum, MRF, BPCL, BIOCON, TOYOTA Tusho, ABB Cement, Ultratech Cement, Paper Packaging, HPCL, Synthide,Sansera,JSW		
Total- 63	40	23		

As a result of IEX efforts towards market development, the participation and transaction volume in RTM market has reached 10-12% of the DAM within a month's time which is far from what has been imagined at the time of launch of RTM.

(d) **Clearing Settlement & Risk Management**: PMR 2010 has provided the operational freedom to the power exchanges to manage their clearing settlement and risk management function as per the broad framework provided under the Regulations. IEX has due diligently carried out its clearing settlement & risk management through its system of margination and under overall regulatory oversight of this Hon'ble Commission. It is a matter of pride to mention that during last 12 years of operations, there has not been a single default reported in the settlement of transactions. On the contrary, the margination system followed in Power Exchanges have brought discipline in the buyers towards payment of their dues to Generators and Transmission licensee and improved cash flow in the market to the extent of trading being carried out in the Power Exchanges.

12. In view of the above, it is submitted that the introduction of spot exchanges under the provision of Guidelines and subsequently PMR 2010 has immensely benefited the sector. The two Power Exchanges functioning in the market providing array of products through their platform has provided an alternative avenue for the market participants to fulfill their buy/sell requirements in an efficient manner. The prices discovered in the exchange platform has remained low and given an opportunity to the Discoms & large OA consumers to optimize their cost. The price signal emanating from the power exchanges has also provided the necessary market signals to the market participants in taking investment related decisions having medium to long-term implications for them. The transactions taking place through Power Exchange does not face any issues related to payment security and cash flow, as it is the Power Exchange that bears the counterparty risk – this has given the belief to the policymakers to consider institutionalizing the payment security mechanism at a wider scale. Most importantly, the possibilities of creating value for themselves have incentivized the power exchanges to efficiently discover their prices, promote market development and carry out their operations in a transparent manner which has resulted into increased participation and higher transaction volume in the exchange platform. Thus, it would be appropriate to say that the power exchanges created under the provisions of PMR 2010 have played a substantial role in furthering the Govt. and this Hon'ble Commission vision for promoting power market development in the country.

Re. Multiple Exchange & Competition in Exchange Market

13. Due to the management effort and operational efficiency, IEX has performed well in the market and has achieved a higher market share (97%) in the exchange market. IEX has a major share in the DAM, whereas, in TAM and REC market both IEX and PXIL (65%:35%) have comparable market share. This Hon'ble Commission in its endeavor to have multiple power exchanges in the market to promote competition, has provided relaxations to PXIL on several occasions (relaxation related to networth compliance, shareholding pattern, reservations in

transmission corridor etc.) to support PXIL continue and perform in the market. Recently, Pranurja Services Limited (PSL) has approached this Hon'ble Commission under Regulation 16 of PMR 2010 for grant of registration to set up a new power exchange, which is expected to further strengthen the competition in the power market. This along with the above paras on value proposition of power exchanges gives the testimony to the efficacy of the current regulatory framework and the market design prevailing in the country.

14. Thus, the presence of multiple exchange and the threat of new entrants into the market has always put competitive pressure on IEX to keep improving its product and services offered to the market participants which has eventually benefited the market and the sector at large. IEX is now a publicly listed company with NSE and BSE and also under the scrutiny of financial market regulator i.e. SEBI. In August 2016, IEX received three ISO Certifications - ISO 9001:2015 for quality management, ISO 27001:2013 for Information security management and ISO 14001:2015 for environment management.

15. It is submitted that since the commencement of power exchange operations in India, there have been two exchanges which have withstood the test of time and have constantly furthered the objectives proposed to be achieved by the PMR 2010. However, by its sheer commitment for development of the market with constant innovations and capital infusions, IEX has been able to develop the market and has been a leading market maker. As a result of IEX's calibrated approach and efforts, today, the market share enjoyed by IEX in DAM is around 99% of exchange transactions with 1% constituted by PXIL. Ironically, the progress made by IEX in driving exchange transactions is perceived by other stakeholders as a monopolist tendency which is unfortunate since: -

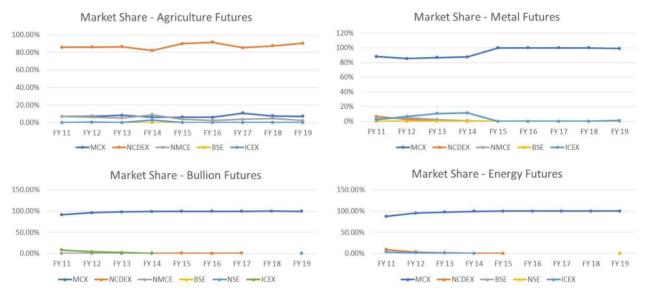
- (a) IEX has gained strong market share due to its operational efficiency and extremely dedicated management.
- (b) IEX has always complied with all the criteria prescribed by this Hon'ble Commission under PMR 2010 viz. shareholding pattern, minimum net worth, compliances related to market surveillance & risk management etc.
- (c) Due to constant innovation in technology, processes, new products and designs, IEX has been able to drive markets forward while operating within the ambit of the extant regulatory framework.
- (d) There exist no entry barriers to the market for other players. Neither is there any special dispensation provided to IEX. In fact, on the contrary, relaxations have been given from time to time to PXIL on numerous occasions with respect to net worth criteria, equity infusion etc.

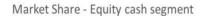
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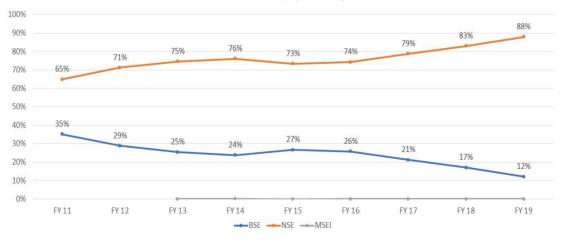
- (e) All these years, there has not been a single instance where this Hon'ble Commission has observed any intent of IEX to manipulate the market or stifle competition in the market; let alone to actually taking any actions regarding this.
- (f) Effectively, the market that has been developed since IEX's inception due to its efficiency is being perceived as a monopoly in the market without there being any substance and/or backing of such perception.

16. In this regard, it is pertinent to draw attention to the fact that the dominance/leadership of a commodity exchange in a particular commodity is a common phenomenon. Even though the stock/commodity exchanges in India are allowing trading on a continuous basis on price-time-priority basis the market is dominated, at least product-wise, by a particular commodity/stock exchange due to superior technology or better services provided by the concerned exchange. The market share of different commodity/stock exchanges is provided in the figure below:

Figure 3 – Market Share of Commodity/Stock Exchanges in India







17. Globally also, there are precedents where the market has been dominated by different commodity/stock exchanges and have become price setter for the market. Some of the examples are provided below:

- Shanghai Futures Exchange or Dalian Commodity Exchange of China, which have become price setters instead of price takers. The prices discovered on these exchanges, like copper on SHFE, have become global benchmarks.
- Malaysia's BMD is known for offering the benchmark crude palm oil derivatives contract
- US' CME group is known for offering benchmark for gold, silver, crude oil and natural gas derivatives
- ICE in US and Europe offers benchmark for derivatives on coffee and sugar
- Japan's Tocom offers benchmark for rubber
- London Metal Exchange offers benchmark for non-ferrous metals
- The National Stock Exchange of India Ltd. has a 99.6 percent share of trading in the derivatives

18. Looking beyond the exchanges, there are innumerable examples where companies on account of their excellent value proposition, superior technology and efficient operations have emerged as a leader in their respective industries and created value for their shareholders, employees and society at large. Microsoft, Google, Amazon etc. are some of the common examples which have gained leadership position in their verticals because they could beat the competition on account of their constant innovation and efficient operations. However, as the leadership position is not guaranteed, these companies have to push themselves continuously for bringing innovation in the market to sustain their position. In a competitive market scenario, where the competition can come from existing or new entrants into the market, the dominant position of an organization cannot be analogized with 'monopoly position' and as a matter of fact such dominant position will not be detrimental to the society. Needless to add, that there has to be a market oversight through appropriate statutory body to oversee that such dominant players are in no way using their dominant position to manipulate the market or stifle in any manner the competition in the market.

Re: Bigger Challenges before the Market

19. The broad regulatory framework provided by PMR 2010 and constitution of power exchanges has undoubtedly provided a strong foundation for the power market in the country, however, the growth of the market has left a lot to be desired. National Electricity Policy in 2005 has provided the vision to have at least 15% of transactions out of long term PPAs.

Similarly, this Hon'ble Commission while specifying the PMR 2010, has set the objective to achieve 15% of long term capacity in the exchange platform within 3-4 years; however, looking at the current scenario, it seems that the market is a long distance away from achieving any of these objectives. As against the statutory objectives, evaluation of Indian power sector may be summarized below in terms of the position of the market as it existed in 2003 (i.e., when the Electricity Act came into effect) *vis a vis* the current position: -:

Table 2: Evaluation of Power Market	t
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	Attribute	FY 2003-04 and % of generation	FY 2010-11 and % of generation	FY 2019-20 and % of generation	
1	Installed Capacity (MW)	112675	173626	370047.97	
-		565.101	811.10	1390.93	
2	Power Generation (MUs)	505.101	811.10	1390.93	
3	Trading Market		81.56 (10.06%)	137.16 (9.86%)	
3.1	Bilateral through Trader and TAM (MUs)		27.70 (3.42%)	37.24(2.68%)	
3.2	Direct between Discoms (MUs)		10.25 (1.26%)	28.17 (2.03%)	
3.3	Exchange (MUs)		15.52 (1.91%)	49.16 (3.53%)	
4	UI/DSM (MUs)		28.08 (3.46%)	22.59 (1.62%)	
5	REC		0.00	8.80 (0.63%)	

Evidently, in spite of 16 years since enforcement of the Electricity Act, 2003, the objective of developing a vibrant market remains to be fulfilled. 21. It is submitted that although the situation has improved during past 10 years, there are several challenges to be overcome before any substantial progress could be made in the power market. Some of the bigger challenges are briefly discussed below:-

(a) **Products introduced are only ready delivery contract with delivery up to 11 days** – Due to regulatory jurisdiction dispute between the SEBI and this Hon'ble Commission, the power exchanges are allowed to only provide 'ready delivery contracts' with delivery horizon up to 11 days. Further, the absence of financial products in electricity sector to enable the market participants hedge their risk has also not helped in deepening of the market.

(b) **90% of the transactions are taking place through long term rigid PPAs** – Almost 90% of the overall transactions are taking place through long term PPAs, many of which are perpetual in nature. The binding contractual conditions under these PPAs are not allowing the market participants to unshackle and participate in the market. There is a need to bring necessary changes in policy/regulatory framework in the market to move away from 'PPA based transactions' to 'market-based transactions'.

(c) **Tariff and Non-Tariff barriers to Open Access Consumers** – While introducing Open Access it was envisaged that the non-discriminatory open access over transmission and distribution system would not only promote competition in the sector, but also, put

competitive pressure on the Discoms to improve their efficiency. However, the ground reality turned out to be not so conducive; with several tariff and non-tariff barriers inbuilt into the system, the actual participation of OA consumers in the market is much less than the level envisaged under the statute.

(d) **Market mechanism for RE capacity addition & grid integration** – The growth of renewable energy is imminent given the climate considerations and the nations' commitment towards the global community. However, such growth in RE capacity is currently taking place mostly through long term PPA route which is not sustainable in long run. There is a need to evolve appropriate market mechanism for RE capacity addition & grid integration.

20. In view of the above, it is submitted that this Hon'ble Commission while proposing any change in the existing regulatory framework should principally be guided by the objective to provide resolution to the above 'bigger challenges' being currently faced by the power market. Indulgence with objectives other than the above would for sure not bring any substantial gain to the market.

D. Proposed Amendment & Critique

21. This Hon'ble Commission has issued the Draft PMR 2020 on 18.07.2020 seeking comments/suggestions from the stakeholders. Initially, the deadline for submission of comments was stated as 07.08.2020 which subsequently got extended to 14.08.2020. The explanatory memorandum to the Draft PMR 2020 was published in the CERC website on 01.08.2020. The important features of the Draft PMR 2020 are as below:

- (a) Allowed introduction of contracts beyond 11 days
- (b) Market Coupling of Power Exchanges
- (c) Constitution of Market Coupling Operator (MCO) for undertaking price discovery
- (d) Approval of Transaction Fees of the Power Exchanges
- (e) Clearing & Settlement activities to be carried as per PSS Act, 2007
- (f) OTC Platform for information sharing amongst buyers and sellers
- (g) Other measures related to Net worth, Governance structure, Market monitoring & surveillance activities etc.

In the section below the provisions related to market coupling, transaction fees and clearing & settlement activities have been dealt with in detail, whereas, the observations related to other provisions are annexed to this note in a table format.

Re: Overall structure and objective of Draft PMR 2020

22. This Hon'ble Commission while specifying the PMR 2010 has provided a detailed understanding of the objective that the Regulations wanted to achieve in terms of market development. The Explanatory Memorandum to PMR 2010 has specified the probable

scenario and macro-objectives for development of power market in the country. The said Regulations introduced the Power Exchanges in the country and provided a forward-looking regulatory framework for the efficient functioning of the Power Exchanges in the country. The Regulations have also envisaged the introduction of Derivatives Market, Ancillary Market & Capacity Market at appropriate time. As a result of these Regulations, a new era ushered for the power market in India with investment in two Power Exchanges i.e. IEX and PXIL eventually benefiting the sellers, buyers & consumers at large. In comparison, the new Draft PMR 2020 proposed by this Hon'ble Commission after a decade of the introduction of PMR 2010, has not provided any clarity on the objectives it wanted to achieve or long-term vision for the market. As contended in Para 20-22, the Draft PMR 2020 has proposed to resolve the long standing regulatory jurisdiction issue between SEBI and CERC, however, it has nothing to offer with respect to the other 'bigger challenges' before the sector namely long term PPAs, Open Access, and RE capacity addition through market mechanism, without which any substantial progress in the market is not possible. In this backdrop, the objective of repealing the existing PMR and bringing in a new set of Regulations is not very clear.

23. This Hon'ble Commission through PMR 2010, has provided a "Principle based regulatory framework" and promoted competition in the sector in alignment with the spirit of Electricity Act 2003. PMR 2010 provided a multiple power exchange framework for the market and envisaged that the competition amongst the power exchanges would result into product innovation, efficiency in service delivery, control on transaction fees etc. The Regulations also laid down the eligibility conditions attaining which, any entity could establish its Power Exchange. The competition amongst the existing power exchanges & the threat of possible new entrant into the market has pushed the existing power exchanges to operate efficiently in the market and the results are there to see. At this juncture, going forward, the any amendment in existing PMR should have ideally promoted the competition further to get the best out of the market participants. However, on the contrary, it seems that this Hon'ble Commission by way of the Draft PMR 2020 is introducing a stringent regulatory framework, as the Draft Regulations propose to: -

- Regulate/cap the transaction fees of the Power Exchanges which was earlier left to be decided by market forces.
- (b) Introduce Market Coupling between the Power Exchanges which will take-away the price discovery function of the Exchange, thus diminishing competition amongst Power Exchanges; and
- (c) Make market monitoring more stringent, which would increase management effort towards compliance activities, thereby increasing the overall cost.

Altogether, the proposed changes will curb the competitive forces and also increase entry barriers in Power Exchange market, thus adversely affecting competition in the market. It is an established fact that competition yields optimal and better result as compared to stringent regulations. Instead of strengthening the power market and its institutions the Draft PMR 2020 has proposed structural changes which will curb competition and weaken the power exchange market as discussed in the subsequent paragraphs.

D1. Market Coupling of Power Exchanges

24. The Draft PMR 2020, while introducing an enabling provision for Market Coupling has proposed the following: -

- (a) Market Coupling means the process whereby the collected bids from the Power Exchanges shall be matched to discover the uniform clearing price for DAM or RTM or any other market as may be notified by the Commission
- (b) Market Coupling Operator (MCO), to be designated by the Commission, shall collect and match the bids collected from the Power Exchanges and to discover the price for DAM or RTM
- (c) Market Coupling Operator shall develop and operate an Algorithm for discovering the uniform clearing price
- (d) Market Coupling Operator would come out with the detailed Procedure prior to implementation of Market Coupling
- 25. Draft PMR 2020 has provided the objective of Market Coupling as extracted below: -
 - "37. Objectives of Market Coupling
 - (1) Discovery of uniform clearing price for the Day Ahead Market or Real Time Market or any other market as notified by the Commission
 - (2) Optimal use of transmission infrastructure
 - (3) Maximization of economic surplus, after taking into account all bid types and thereby creating simultaneous buyer-seller surplus.

26. The Explanatory Memorandum to the Draft PMR 2020 has provided the provided the rationale for Market Coupling as extracted below:

- "3.5.1 Multi-Power Exchange model, such as that exists in India, may result in scenarios in which
 - (i) there is difference in the prices discovered on different Power Exchanges for a particular market of collective transactions; or
 - (ii) allocation of transmission corridor amongst the Power Exchanges is not optimal owing to skewed market share of various Power Exchanges; or
 - *(iii) overall economic surplus is not maximized since buyers and sellers may be spread out on various Power Exchanges.*

- 3.5.2 In addition to above mentioned issues, the Commission expects that financial products in the electricity market (which are under the process of being approved by the competent authority) would require uniform price discovery in the Day Ahead and Real-time markets.
- 3.5.3. ...Further, the charges for deviation settlement are currently indexed to the Day Ahead market clearing price. A uniform market clearing price in the Day Ahead market discovered by the market coupling process, would minimise the scope for any arbitrage between deviation settlement and the market."

Re: Reversal of Approach with no Plausible Reasons

27. This Hon'ble Commission has all throughout the preceding years taken the approach of having multiple exchanges in the market. This Hon'ble Commission has clarified this position while specifying the Guidelines in 2007, and subsequently continued with this approach in PMR 2010. This Hon'ble Commission, through its various Orders, has reiterated its stand of having multiple exchanges to promote competition in the market. On numerous occasions, the Hon'ble Commission has stated that the multiple exchanges competing amongst themselves would lead to product innovation, efficiency service delivery, control on transaction fees etc. As a matter of fact, based on this approach only, this Hon'ble Commission has allowed relaxation to PXIL to be able to continue its operations in the market. However, this Hon'ble Commission while proposing the Draft PMR 2020, has abruptly concluded that the multiple exchange may result into scenarios, in which there are differences in prices discovered across power exchanges, transmission corridor is sub-optimally allocated, or economic surplus will not get maximized. Based on this reasoning, this Hon'ble Commission has proposed market coupling of power exchanges wherein the price discovery function shall be carved out of the power exchanges and given to an independent third party. It is hard to believe that this Hon'ble Commission, while so strongly being a votary for a multiple exchange framework has not envisaged such issues associated with this framework. Assuming that this Hon'ble Commission has developed this understanding now, though no study or evidence has been provided, the proposal to market couple the exchanges should have been counterweighed against the benefits that has been envisaged to accrue due to competition amongst the power exchanges (due to price discovery function). From the reading of the Draft PMR 2020 and Explanatory Memorandum the reasons provided for such a drastic change in approach is not at all plausible.

Re: Regulatory Uncertainty Legitimate Expectations & Investment Signal

28. This Hon'ble Commission while issuing the PMR 2010 has considered multiple exchanges to be functioning under the broad regulatory framework provided under these Regulations. The Power Exchanges were required to maintain the net-worth and make

investments in appropriate technology to provide the automated trading platform prescribed under the PMR 2010. The sudden change in approach of this Hon'ble Commission to couple the power exchanges, without any strong rationale or consultations, would be perceived as an increase in regulatory uncertainty which will not only affect the existing investments but also the prospective investments in the power market.

29. It is noteworthy that the National Electricity Policy 2005 [Clause 5.8.8] and Tariff Policy 2016 [Clause 4(a)&(b)] issued by Ministry of Power (**MoP**) under Section 3 of the Electricity Act provides that steps should be taken to ensure 'regulatory certainty' so as to minimize perceptions of regulatory risks, ensure financial viability of the sector and generate investor's confidence to attract investments. The Hon'ble Supreme Court of India in *Energy Watchdog v. CERC* [(2017) 14 SCC 80] has held that Tariff Policy 2016, being a statutory document, has the force of law.

30. It is submitted that since the promulgation of PMR 2010, it was assured that price discovery function would remain with the Power Exchanges. Para 2.3 and 2.6 of the SOR to PMR 2010 specifically envisaged that Power Exchanges would have the freedom to provide price signal as also function as risk transfer platforms. Therefore, IEX invested in the market with the aforesaid assurance meted out by the PMR 2010 to develop the market. However, such assurance has been completely diluted by the present Draft PMR 2020 effectively rendering power exchanges to function as mere bid collectors. The incentive for Power Exchanges to develop new products will get completely eroded. The Hon'ble Supreme Court in a catena of Judgments has held that if based on a representation, a party alters its position then the said party has the legitimate right to seek enforcement of the said representation. The Hon'ble Supreme Court has dealt with the Doctrine of Legitimate Expectation as under:-

- (a) If a private party alters its position based on a representation, then it is not necessary for the party to prove any damage or detriment as long as the party has simply altered its position.
- (b) In situations, where even though a person has no enforceable right yet he is affected or likely to be affected by the order passed by a public authority the courts have evolved the principle of legitimate expectation.
- (c) 'Legitimate expectations' is capable of including expectations which go beyond enforceable legal rights, provided they have some reasonable basis.
- (d) If a right had been enjoyed previously by private parties then the parties have a legitimate expectation to enjoy the same unless the right has been withdrawn with a rationale behind it.
- (e) Denial of legitimate expectation amounts to denial of rights guaranteed to a party.

Re: Diminish the value proposition of Power Exchanges and Competition and innovation in the Market

31. One of the critical functions envisaged for the Power Exchanges is to bring innovation in the product space, and suggest new product or features in the existing products on a sustained basis to cater to the changing needs of the market. The Power Exchanges can effectively carry out this role if it has enough incentives to do so (i.e. being able to create relatively a higher value by doing so) and at the same time has the necessary wherewithal (algorithm with price discovery function) to implement the new product. Market coupling of power exchanges will take away the price discovery function that will significantly diminish the value proposition of the Power Exchanges and make them meagre bid collection centres or 'post office' for MCO in DAM or RTM which constitutes around 98% of the market. The competition amongst the Power Exchanges would get badly affected considered necessary for product innovation. The competition will be only on their transaction fees, but overall it will hamper product development, and innovation in bid structures. It is submitted that the Power Exchanges which have played such a crucial role in efficient price discovery in recent past will become incapacitated to play a meaningful role in the market. Instead of strengthening the power exchange institutions, the proposal to couple the exchanges will render them as weak entities with having hardly any ability to create value for the market participants.

Re: Evaluation of Objectives set out in the Draft PMR 2020

32. The Draft PMR 2020 and Explanatory Memorandum has proposed Market Coupling with the following underlying objectives:

- *I.* Discovery of uniform clearing price
- *II.* Optimal use of transmission infrastructure
- *III. Maximization of economic surplus.*

The underlying objectives stated in the Draft PMR 2020 are examined in the following paragraphs:

I. Discovery of Uniform Clearing Price:

- i. The requirement of a uniform clearing price does not seem to be relevant in the current market scenario where the exchange market is only 4% and the remaining 96% of the transactions are taking place through bilateral market having different prices across different transactions. Further, with the 99% of the DAM & RTM, and IEX literally acting as a price setter for the market, the price discovered in such a market is already a Uniform Clearing Price.
- ii. Even if it is assumed that there is a sizeable volume in the exchange market with comparable market shares across the power exchanges, it is not necessary that the prices will significantly vary across the power exchanges or not converge

over a period of time. The Power Exchanges being located within same geography and catering to the national market as a whole, will get invariably homogenous bids, which will ensure that the prices would not vary significantly across the Power Exchanges. It has been observed that the prices discovered in DAM and RTM has moved in tandem during last 2 months of operations.

iii. Further, even if the prices are not exactly similar, it would create arbitrage opportunities in the market which will act as a counter force to the price differences across the Power Exchanges and most likely this will bring the prices across Power Exchanges towards convergence albeit with some time lag. The introduction of electricity derivatives will provide amenities to the intermediaries in the market to take advantage of such arbitrage opportunities. The Statement of Reasons to PMR 2010 has in fact envisaged that market shall get coupled through arbitrage mechanism. Relevant clause of the Statement of Reasons is extracted below:

"B. Probable Scenario

... A strong and robust coupling between these markets through arbitrage mechanism and minimal entry barrier ensures converge of prices between different markets, efficient pricing happens as different market participants price the asset from different perspectives and manipulation of prices is difficult as the integrated market is large in size"

The Explanatory Memorandum to Draft PMR 2020 has stated that the financial iv. product market requires uniform clearing price seems to be fallacious. First of all, a uniform clearing price is not a pre-requisite for a financial product to be launched. Secondly, the freedom to choose the reference price for settlement of financial product should be allowed to MCX or the commodity exchange planning to introduce such products. Besides, as agreed upon by SEBI and CERC during the deliberations of 'Committee on Efficient Regulation of Derivatives', constituted by Ministry of Power (MoP), the regulatory jurisdiction of physical deliverable product shall lie with CERC, whereas, the electricity derivatives shall be regulated by SEBI. Accordingly, the decision to decide on reference price shall be either lie with the commodity exchange or the financial regulator i.e. SEBI. At best, the reference price can be decided based on the mutual understanding of CERC and SEBI, and, for that also the said Committee has recommended a 'Joint Working Group (JWG)' to be formed for framing the operating procedures. It is submitted that there is no urgency to hop the steps

involved and incorporate such a drastic step of market coupling to arrive at the uniform market clearing price.

The Explanatory Memorandum to Draft PMR 2020 has also suggested that a ٧. uniform clearing price discovered through market coupling process would minimize the arbitrage opportunities between deviation settlement and market. First of all, the deviation settlement mechanism (DSM) is a frequency linked mechanism (provides price vestor), wherein, the deviation charges computed for overdrawl/underinjection is dependent on what frequency such deviation has taken place. A buyer/seller cannot predict and control the grid frequency, and, hence arbitrage across the deviation settlement and market seems to be infeasible. Further, it seems that this Hon'ble Commission is giving preponderance to DSM which is nothing but a penal mechanism over a welloiled functioning market. This Hon'ble Commission is considering sacrificing a proven and efficient market to ensure that DSM is protected, which is in any case going on smoothly with the settlement price being indexed with the DAM price on a weighted average formula (if the market share of minor exchange is more than 20% or else DAM price of major exchange shall be considered). As a contradiction to this stand, this Hon'ble Commission has recently introduced RTM with one of the objectives to reduce the dependence of the market participants on DSM for ensuring better grid security.

II. Optimal Utilization of Transmission Infrastructure

- The objective of optimal utilization of transmission infrastructure does not seem to be relevant in the current market scenario where the exchange market is only 4% and the remaining 96% is taking place through bilateral transactions.
 Further, with the 99% of DAM with IEX, there is hardly any scope for further improving the utilization of the transmission infrastructure.
- It may be also pertinent here to mention that due to huge investments in the transmission corridor the overall congestion have reduced in the market from 15% in FY 2013 to 0.4% in FY 2020 and the role of market splitting mechanism followed in the power exchanges in providing those investment signals cannot be overemphasized.
- iii. The current approach of transmission corridor allocation amongst the power exchanges on a pro-rata basis by the System Operator does not leave any further scope for improving the utilization of transmission corridor. The prorata method of allocation of transmission corridor do require an iterative approach from the System Operator, however, with the availability of

advanced communication links and information technologies this may no longer be considered as a challenge. As a case in point, in RTM the pro-rata allocation of transmission corridor is repeated for every 15 mins time block. Besides, with the implementation of National Open Access Registry (NOAR) the processing of open access applications and transmission corridor allocation shall happen on a real time basis completely taking away the communication related challenge out of the equation.

iv. The benefit of any improvement in utilization of transmission corridor has also to be seen in the light of loss that would incur due to curbing of competition and innovation in the market on account of implementation of market coupling; prima facie, it seems that the benefit would be much lower than the damage that would be created by market coupling.

III. Maximization of economic surplus

- i. Again, the objective of maximization of economic surplus is not relevant in the current scenario where the exchange market is only 4% and the remaining 96% is taking place through bilateral transactions. Further, with the 99% of the market with IEX, there is hardly any scope for further improving economic surplus in the market.
- ii. Assuming that there is a sizeable volume in the exchange market with comparable market shares across the Power Exchanges, then market coupling is likely to improve the economic surplus, although that needs to be ascertained because of counter intuitive nature of block bids or any other complex bid structures. However, there are significant trade-offs involved in the process which may actually bring down the economic surplus at an overall market level. Some of the reasons are briefly discussed below:
 - a. Price discovery in a centralized manner would take away the incentives for the Power Exchanges to bring innovation in product or put efforts towards market development. As a result, the market participation would not grow at the same pace, as it would have grown had there been incentives for the Power Exchanges.
 - b. Centralized algorithm by design would not be able to accommodate complex bid structures keeping in view the compatibility of different Power Exchanges. As a result, market has to forego certain innovative products which could have improved the participation. Product innovation and complex bid structures have become all the more important now given the changing market scenario with increased RE penetration and other

technologies viz. grid scale batteries, electric vehicles etc. waiting to be mainstreamed.

- c. Besides, the undertaking of price discovery in a centralized manner by creating an additional layer of bureaucracy would increase the administrative complexities and cost in the overall transactions leading to loss of social welfare.
- iii. In view of the above, it is submitted that market coupling of exchanges to improve the economic surplus in a limited way may have far-reaching consequences for the market, eventually resulting into loss of social welfare at an overall level. Unless, the proposal is thoroughly examined, it would not be prudent to jump to the conclusion with simple arithmetic approach towards the complex issue of market design.

Re: Market Coupling for Implementation of MBED

33. In December 2018, this Hon'ble Commission issued a consultation paper on Market Based Economic Dispatch (**MBED**), wherein it was discussed that the existing approach of selfscheduling by the Discoms is resulting into sub-optimal utilization of generating stations i.e., expensive generating stations are scheduled before exhausting the capacity available with cheaper generating stations. Accordingly, this Hon'ble Commission has proposed MBED model with the following highlights: -

- All Generators (including those with long term PPAs) will put sell bids in the DAM; Generators having long term PPAs are expected to bid at their variable cost.
- Dispatching/Scheduling of Generators will take place depending on their Market Clearing.
- (iii) Discoms would continue to pay Fixed charges to the Generator regardless of their dispatch. In case of dispatch, if the Market Clearing Price becomes higher than the Variable Charges then Generator will refund the differences to the Discoms.
- (iv) Market coupling was also considered as a part of the proposal. It was proposed that coupling could be achieved by allowing the power exchanges to run the market clearing engine on a rotation basis or creating an independent entity. It was also suggested that implementation of MBED can also be considered in the existing structure i.e. across multiple power exchanges.

34. This Hon'ble Commission has conducted wide stakeholder consultations and received comments from a large number of stakeholders uploaded in the CERC website. On a perusal of the comments, it is observed that the policymakers have to overcome several technical,

legal and commercial hurdles before the MBED can actually be implemented. This is quite understandable as re-designing of electricity market is a highly complex task with a large number of stakeholders having diverse interests. The point of concern, however, is that while no significant headway has been achieved in resolving the fundamental issues related to market design for implementation of MBED, market coupling which was suggested as a passing reference for implementation of MBED has been proposed as a standalone measure in Draft PMR 2020. As discussed above, market coupling as a standalone proposal will not achieve any of the 'bigger objectives' for the market viz. increasing the liquidity in the market, efficiency improvement etc., it will only disrupt the market which has gained efficiency and trust amongst the market participants over the years. It is submitted that, if at all the market coupling has to be considered, it should be proposed as a part of MBED or any other form of re-designing of market.

Re: Centralized or Decentralized Market: Learning from European Experience

35. Generally, Europe is seen as a credible example for Coupling of markets. The European market consists of twenty-four (24) countries and eight (8) different regions, where supply and demand i.e., distribution of power across borders is very complex due to different types of production, varying demand, and bottlenecks on cross-border cables. Therefore, in Europe, coupling was done across Exchanges in different geographies i.e., different regions were coupled. The primary objective behind Coupling of exchanges in Europe was market integration and optimization of cross border transmission links. In this regard reliance is placed upon the consultation paper on the 'governance framework for the European day-ahead market coupling' published by European Commission, Directorate-General for Energy on 28.11.2011 stating that:-

"1. INTRODUCTION

Market coupling is the method chosen to integrate European wholesale electricity markets. It is the key element in the target model1 for capacity allocation and congestion management which has been developed in the context of the Florence forum which involves all main stakeholders including the Member States. Market coupling means that the cross-border flows at the day-ahead stage are determined by using the price signals in the day-ahead spot markets in each Member State. This enables an efficient European wide price formation mechanism and optimised use of the transmission grid through a strong interaction between price zones. Regarding the time-table for implementing market coupling, Heads of States have set a target date 2014 for a fully functioning electricity market in their meeting in February 2011.

2. IMPLEMENTING MARKET COUPLING

There has been good progress in implementing the target model on a voluntary basis in North Western Europe (NWE) and as bilateral projects on a semi-voluntary bases in the Iberian Peninsula (Spain and Portugal), in Italy and Slovenia as well as in the Czech Republic and Slovakia. **The project Price Coupling of Regions (PCR) is working on an** algorithm that enables a European wide day-ahead market coupling. ACER has formally requested ENTSO-E to validate that the solution for a European day-ahead algorithm proposed by the Price Coupling of Regions (PCR) project meets the TSO capacity allocation requirements.

(5) The aim of market coupling is to integrate markets, which includes both the need for efficient allocation of capacity and efficient price formation. There has been differing views among stakeholders on which of these aspects should be guiding. This issue is relevant since it indicates different assignments of roles and responsibilities between stakeholders."

36. Presently, India is divided into 5 electrical Regions i.e., North, West, South, East and North-East with total 13 Bid Areas for the purpose of trading through Power Exchange. Congestion on transmission network is managed through implicit auction and market splitting mechanism, i.e., when the required flow exceeds transfer capability, Power Exchange determines the Area Clearing Price (ACP) specific to the Bid Areas. In effect, price is reduced in the surplus Bid Area (sale > purchase) and increased in the deficit area (purchase > sale) to manage congestion. Thus, power market in India is already integrated and transmission corridor allocation is managed by the System Operator on a pro-rata basis.

37. In Europe, different regions were coupled together through the PCR model (i.e., Price Coupling Regions) to integrate the market. However, this Hon'ble Commission by way of PMR 2020 has proposed to couple the price on different Power Exchanges in India (i.e., coupling within region), which is not in line with the objectives sought to be achieved by PMR 2020. Moreover, the Indian power market is already integrated. Therefore, blindly picking the European model ignoring the ground realities in India may not be appropriate for deepening of the market.

38. Further, coupling project i.e., PCR was voluntarily started by Power Exchanges in Europe (at the beginning 5, now it is 8 who owns and maintains the EUPHEMIA algorithm). There was no compulsory coupling across exchanges in Europe. Some of the key learnings from the European model is: -

(a) It's a complex arrangement difficult to administer.

- (b) Costly in implementation.
- (c) Does not provide any incentives to the Power Exchanges to innovate apart from fee war.

39. It is also pertinent to note that there is no prevalent example all over the world, where coupling of Exchanges has taken within the same geography and that too with a market share distribution of 99:1 amongst the power exchanges. Further, it is observed that this Hon'ble Commission has proposed consultation paper on MBED having analogy to centralized ISO based model of PJM Market & other similar markets in USA, whereas, the immediate proposal

to couple the Power Exchanges in Draft PMR 2020 can be likened to the Price Coupling amongst Regions in European Union. While it is good to have best of both the worlds, we have to mindful of the fact that both the regions have a different political economy and hence followed a different trajectory of development, and any attempt to cherry pick and create a mix n match market model may create more challenges for us than solving the problem. Therefore, it submitted that it is extremely important to thoroughly analyze and examine different market models available in the market and then create a long-term view of the market design suitable to the Indian context before actually embarking upon its implementation. This may require deeply engaging with different stakeholders, and experts in the domain of economics, power market, law etc.

Re: Alternate Market Design suitable to changing market scenario

40. This Hon'ble Commission has to be commended for being proactive towards market development in the country. During last 2-3 years, the Hon'ble Commission has amended various Regulations and floated discussion papers with the objective to promote market mechanism in the sector. In this context, it is worth looking at an alternate market design where instead of tightening of the controls, Power Exchanges can be given more flexibility than the present situation to enable them to innovate and effectively compete amongst themselves. The broad features of such an 'alternate market design' is provided below:

- i. Principle based Regulations manage the macro picture with adequate safeguards and leave micro-management to participants
- ii. Multiple Power Exchange framework competition amongst the Power Exchanges will lead to efficiency improvement and innovation in the marketplaces
- Specify the broad framework looking at factors viz. grid security etc. & allow Power
 Exchanges the flexibility to introduce new products/bring changes in the existing
 contracts within the framework
- iv. Power Exchanges can compete amongst each other with different products, bid formats, timeframes etc. catering to different segment of customers and co-exist in the marketplace
- v. Different Power Exchanges may specialize in different product segments catering to different segment of consumers and thus have a competitive advantage over other Exchanges in the market.
- v. Market participants will choose between a range of voluntary markets, physical or financial according to their needs. Inflexible generation will tend to trade early and flexible generators may prefer trade later leading to efficient solutions

- vi. Market participants can participate across different power exchanges in different market and offset their positions till 1 hour before delivery after which the system operator can take over to manage the system frequency closer to real time.
- vii. Prior to delivery of electricity all contracts can be considered as financial contracts. Any entities including that of generator can buy or sell power in the market without any restriction.

41. The above market design which is essentially decentralized in mechanism shall promote competition and facilitate innovation in the marketplaces. The marketplaces shall be suitable for changing market scenario with increasing RE penetration and emergence of new actors in the market viz. Grid Scale batteries, Electric Vehicles, Demand Response from the Consumers etc. Thus, the market will be able to cater to a wider audience with varying needs (buy sell or both) across different timeframes. The market will enable efficient price discovery as the participants will have the flexibility to offset their position till real time delivery. It shall also promote investment in the types of technology which are much needed viz. batteries, demand response, pumped storage, flexible hydro, and also more flexible coal units, for managing the increasing intermittency due to renewables.

Re: Promoting competition or measure against dominance

42. In terms of Section 66 of the Electricity Act, this Hon'ble Commission is mandated to promote development of the power market and in this regard the Hon'ble Commission shall be guided by the National Electricity Policy 2005, which seeks to <u>encourage competition</u> [Clause 5.7.1]. However, it appears that introduction of market coupling by way of draft PMR 2020, may be an exercise under Section 60 of the Electricity Act intending to curtail the market share of IEX.

<u>43.</u> It is submitted that in terms of Section 60 of the Electricity Act, this Hon'ble Commission can issue directions to a licensee including IEX only if such licensee abuses its dominant position, which is likely to cause or causes an adverse effect on competition in **'electricity industry'.** Section 60 is reproduced below: -

"Section 60. (Market domination): The Appropriate Commission may issue such directions as it considers appropriate to a licensee or a generating company if such licensee or generating company enters into any agreement or abuses its dominant position or enters into a combination which is likely to cause or causes an adverse effect on competition in electricity industry."

44. It is pertinent to note that Section 60 envisages abuse of dominant position by the licensee in the 'electricity industry' as a whole and not just a part of the industry i.e., the Power Exchange market. The market share enjoyed by IEX is around 99% of power exchange transactions with 1% constituted by PXIL. However, Power Exchange constitutes 4% of the

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total electricity market in India. Thus, in effect IEX merely holds 3.96% of the total electricity market in India and thus cannot be said to be in dominant position let alone abusing such position to adversely affect competition. Hence, it is humbly prayed that IEX ought not be penalized for its efficiency

45. As discussed in earlier Para 18, the market leadership/dominance position of a market incumbent due to superior capabilities cannot be analogized as a 'monopoly position'. If there is a level playing field with no entry barriers, then there exists an equal opportunity for the incumbent players as well entities willing to enter into the market, and such a situation cannot be termed as monopoly situation. The situation can be likened to the current situation in the power market, where, IEX is a dominant player on account of 'customer choice' and not by market design per se. The presence of strong regulatory oversight and involvement of multiple stakeholders viz. load dispatch centers, transmission licensees etc.in the transactions due to peculiarity of electricity sector (require wires for transportation) ensures that IEX, even if it desires, cannot leverage their dominant position to create a higher value for itself.

Re: Prior Stakeholder Consultations for such a Major Shift is proposed in Market Design

46. The Draft PMR 2020 have proposed Market Coupling between the Power Exchanges. It has also been proposed that this Hon'ble Commission would designate a Market Coupling Operator (MCO) who would aggregate the bids collected by the Power Exchanges and undertake the price discovery. This seems to be a significant shift from the earlier approach taken by this Hon'ble Commission in the prevailing PMR 2010. As this is a major shift in the approach, and, can have serious implications on the market mechanism and the competition, the market coupling proposal should have been adequately deliberated before including it in the Draft PMR 2020. This Hon'ble Commission, as has been following the practice (stakeholder consultation carried out for MBED, SCED, RTM etc.), should have preferably brought Discussion paper on the 'Market Coupling' as a concept and conducted wider stakeholder consultation seeking views from them. Although the Draft PMR 2020 have

provided that the MCO would come out with the detailed Procedure prior to implementation of Market Coupling, consultation should have taken place on whether to have the Market Coupling or not in the first place. There are in fact several pertinent questions which should be widely deliberated before embarking on the proposed changes such as:

- a) Why do we need Market Coupling? What are the benefits expected?
- b) Why there is a need of adding another organization/layer in the market mechanism?
- c) Who will be Market Coupling Operator? Will it be a Private body or a PSU to be decided on a nomination basis? Or is it going to be the System Operator, if yes will there be conflict in such a role?
- d) What are the cost implications? How these costs are going to be recovered?

e) How the clearing & settlement shall be carried out amongst the Power Exchanges?

f) What would be the role of Power Exchanges after Market Coupling is implemented?

47. It is submitted that the introduction of Market Coupling & Market Coupling Operator may have far-reaching consequences for the market. Hence, this Hon'ble Commission is requested to include the provisions on Market Coupling only after wider consultations with the stakeholders of the market.

48. In this regard, it is pertinent to draw attention to the time taken by this Hon'ble Commission in conducting stakeholders' consultations before giving deciding on approval/rejection of Petition. The time taken by this Hon'ble Commission while issuing some of its recent Orders is provided in the Table below:

S.No	Petition Number	Subject	Filed On	Disposed On	Days	Outcome	Propose r
2	095/RC/ 2014	Amendments in Business Rules	20-05-2014	25-03-2015	309	Rejected	IEX
3	033/RC/ 2017	Amendments in Business Rules	15-02-2017	10-10-2018	602	Approved	IEX
4	218/RC/ 2018	Introduction of New Bid (order) types	17-07-2018	16-10-2018	91	Rejected on	IEX
5	011/RC/ 2019	Introduction of New Bid (Order) Types	28-12-2018	14-01-2020	382	Approved	IEX
16	25/MP/ 2020	Introduction of Green Term Ahead Market (GTAM)	26-11-2018		626	Pending	IEX

Table 3: Time taken to dispose some of the recent IEX Petition

Based on the above dataset, this Hon'ble Commission while disposing the above Petitions, has taken the following time:

- More than 1 year for giving approval to the Petition (No. 11/RC/2018) on New Bid Types. Multiple stakeholder consultations were held – initially IEX conducted it by hosting it in its website, subsequently the same was hosted in the CERC website. Prior to that he Petition No. 218/RC/2018 was rejected on the premise that IEX had not conducted any stakeholders' consultations.
- Nearly 1.8 years (20 months) for giving approval on amendment proposed by IEX in its Business Rules and Bye Laws (Petition No. 33/RC/2018). Multiple stakeholder consultations were held – initially IEX conducted it by hosting it in its website, subsequently the same was hosted in the CERC website. If the time taken in the previous petition (95/RC/2014) is to be added, which was rejected by this Hon'ble Commission then the total time taken for giving approval on Business Rules would add up to approx.. 2.5 years.

 Petition for Green Term Ahead Market filed on 26.11.2018 is yet to be disposed by this Hon'ble Commission; 1.7 years have already elapsed. Again, multiple stakeholder's consultations were held during this time

49. As multiple stakeholder consultations were conducted – once by IEX and then followed by this Hon'ble Commission, it took substantial time for disposing of these Petitions. It is pertinent here to highlight that these proposals are seemingly innocuous ones as compared to the proposal of Market Coupling which could have far-reaching consequences on the market and Power Exchanges. However, as a part of due diligence and rightly so, this Hon'ble Commission had not let go these proposals without ascertaining them through adequate stakeholders' consultation. In view of the above, it is respectfully submitted that this Hon'ble contemplating such a major shift in the market design should consider wide stakeholder consultations before even proposing it in Draft PMR 2020.

50. It is submitted that, this Hon'ble Commission ought to conduct a study on the subject matter through constituting an expert committee either drawing from tis internal resources or experts having deep insights into the market design.

51. In this regard, it is pertinent to draw attention to the expert committee constituted vide Order dated 30.04.2015 in Petition No. 158/MP/2013 under the chairmanship of Shri. S.K.Soonee, the then CEO of POSOCO with the mandate to review the transmission corridor allocation amongst the Power Exchamges and examine various methodologies in the context of social welfare maximization and optimal corridor utilization. The other members of the Expert committee included Dr. Nicholas Ryan from from Yale University, Prof. Abhyankar from IIT Delhi, Mr. Saxena(Chief Engineering) and Dr. Chaterjee (Jt. Chief RA) from CERC & other representatives from CEA, KPMG, and Power Exchanges. Based on the deliberations the Expert Committee recommended that the solution obtained by merging of bids/market coupling of Power Exchanges would give the optimum solution with social welfare maximization. However, this would require amendment in the CERC Power Market Regulations in addition to resolution of the various other practical considerations such as confidentiality, running of merging solution, logistics, settlement among multiple exchanges etc. The said Expert Committee suggested that a separate committee for long term solution may look into the requirement of infrastructure, logistics, settlement etc. for implementation of merging of bids for optimal solutions. The Expert Committee recommended that the prorata methodology may be continued as this has been agreed between this Hon'ble Commission, NLDC, IEX and PXIL.

This Hon'ble Commission took into cognizance the report submitted by the Expert Committee and vide Order dated 04.04.2016 decided to not to go ahead with merging of bids/market coupling of Power Exchanges considering it as pre-mature idea. The views of this Hon'ble Commission is reflected in Para 15 & 16 of the said Order as extracted below:

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"15. The Expert Group considered the study carried out by Dr. Puneet Chitkara and Dr. Abhyankar on "Simulation of Alternatives Proposed allocation of Transmission Corridors between the Power Exchanges". The present models were tested on a 14 bus system with normal bids and congestion in one corridor. As per the study, merging of the bids of the power exchanges would be the first best solution in comparison to various other allocation methods. However, the Expert Group agreed that more in depth study was required to capture the full complexity such as loop flows and counter flows etc. The Expert Group has acknowledged that the solution of merging of bids was not acceptable to the power exchanges for various reasons including the apprehension that devoid of price discovery engine, exchange would be reduced to a glorified trader. Moreover, the Expert Group has recommended that merging of bids would require changes in the market design and amendment with the Power Market Regulations in addition to resolution of various other practical considerations such as confidentiality, running of merging solution, logistics, settlement among multiple exchanges, etc. The Expert Group has concluded that in case merging of bids is implemented, the power exchanges would compete o services they offer rather than the price discovered in by them in Day Ahead Market.

16. As the Expert Group has itself suggested that resolution of various practical issues are required before considering the proposal for introduction of merging of bids /market coupling method. Moreover, the Expert Group has recommended for constitution of a separate committee for long term solution which may look into the market design issues in a holistic manner including the transmission access methodology besides requirement of infrastructure, logistics, settlement etc. for implementation of merging of bids for optimal solution of transmission corridor allocation amongst multiple exchanges. Both the power exchanges have expressed serious reservation about the solution of merging of bids. The Commission is of the view that the concept of merging of bids is pre-mature at this stage and is not relevant in the context of the present petition. During the hearing of the petition, CEO, POSOCO clarified that congestion on the transmission corridor is not that acute as it was prevailing four years back which was also endorsed by the representatives of both the power exchanges. Therefore, the Commission has not considered this recommendation of the Expert Group for merging of bids of the power exchanges."

52. It is submitted that this Hon'ble Commission vide the Order dated 04.04.2016 has disapproved the merging of bids/market coupling of Power Exchanges on the following ground:

- (a). Expert Group agreed that more in depth study was required to capture the full complexity such as loop flows and counter flows etc Expert Group has itself suggested that resolution of various practical issues are required before considering the proposal for introduction of merging of bids /market coupling method.
- (b). Moreover, the Expert Group has recommended that merging of bids would require changes in the market design and amendment with the Power Market Regulations in addition to resolution of various other practical considerations such as confidentiality, running of merging solution, logistics, settlement among multiple exchanges, etc.

- I(c). That the solution of merging of bids was not acceptable to the power exchanges for various reasons including the apprehension that devoid of price discovery engine, exchange would be reduced to a glorified trader
- (d). CEO, POSOCO clarified that congestion on the transmission corridor is not that acute as it was prevailing four years back which was also endorsed by the representatives of both the power exchanges.

53. This Hon'ble Commission has disapproved the merging of bids/coupling of Power Exchanges considering it as pre-mature at that stage. It is submitted that the ground on the basis of which this Hon'ble Commission has disapproved the market coupling has not changed a bit in all these years. There are two Power Exchanges and the transaction volume across both the Power Exchanges has remained stagnant at 4% of the overall market. However, the situation of congestion has improved over the period and has come down to 1% during FY 2019. There is no reason for this Hon'ble Commission to consider market coupling of Power Exchanges when practically the situation has remained the same or has improved in terms of congestion. Further, if at all, this Hon'ble Commission is contemplating to go towards market coupling then, as suggested by the Expert Group a separate Committee should be constituted to carry out in depth study to capture the full complexity associated with the market coupling. In view of the above, this Hon'ble Commission is urged to carry out a comprehensive study and conduct wide stakeholders' consultations before considering it to incorporate in the Draft PMR 2020.

Re: Inconsistent Regulations due to Market Coupling

54. Further, it is observed that the Draft PMR 2020 proposed by this Hon'ble is half-baked and inherently inconsistent. For example, if coupling were to be considered and clearing function to be hived off, then what is the rationale behind having the following provisions in the Draft PMR 2020: -

- (a) Net worth of Rs. 50 crores. [*Regulation 14*]
- (b) Demutualization of Shareholding. [*Regulation 15*]
- (c) Maximization of economic surplus & audit. Requirement [*Regulation 31(8), 37(3) and 39(3)*]
- (d) Requirement of approval of SGF etc. [*Regulation 27*]

55. This Hon'ble Commission has proposed in Draft PMR 2020 that market coupling shall be implemented and MCO constituted as and when it shall be notified by the Hon'ble Commission. However, it is submitted that as and when this Hon'ble Commission shall notify the market coupling, the other provisions proposed in PMR viz. net-worth requirement etc. shall also have to undergo change, which essentially means that this Hon'ble Commission has to again bring amendments in the PMR 2020. Besides, as we understand, this Hon'ble Commission is also working towards bringing change in market design by implementing MBED which may also require further amendments in PMR 2020. Further, not only the PMR 2020 has to be changed but also the associated document approved under these Regulations viz. Power Exchanges Business Rules and Bye laws would also undergo change. As a matter of fact, Draft PMR 2020 has proposed that the Power Exchanges at the time of notification of PMR 2020 are required to approve their Business Rules and Bye Laws within 3 months of notification of these Regulations in terms of changes made in the PMR 2020. If PMR 2020 were to change then the Power Exchanges have to again amend their Business Rules and Bye Laws and approach this Hon'ble Commission for approval.

56. In this regard, it is also pertinent to draw attention to the objectives of the power exchanges proposed in the Draft PMR 2020 extracted below:

"8. The Power Exchanges shall be established and operated with the following objectives:(1) To design electricity contracts and facilitate transactions of such contract
(2) To facilitate extensive, quick and efficient price discovery and dissemination"

Draft PMR 2020 has proposed that the Power Exchanges will design contracts; however after the market coupling gets implemented and MCO constituted the design of contract may have to happen in a different mechanism to be evolved based on the deliberations amongst MCO and Power Exchanges. The role of power exchanges will significantly change from that of a 'market maker' to 'bid collector'.

57. Apart from the operational difficulties it would also create uncertainty amongst the existing Power Exchanges as well the entities outside of the market willing to invest in Power Exchanges. For instance, the existing Power Exchanges would be in a dilemma whether to make any further investments in technology upgradation or not as the notification of market coupling would render such investment worthless. Similarly, an entity evaluating the option to enter the power exchange business will get confusing signals from the PMR 2020. It would be difficult for an entity to comply with the requirements of a net-worth of Rs. 50 crs, invest in an IT infrastructure and an algorithm which can provide economic surplus, demutualize its shareholding etc. knowing fully well that all of these may become redundant if market coupling were to be notified. If the PMR 2020 will have market coupling provision it would send incongruous signals to the market participants thus negatively affecting the market. In view of this, it is submitted that this Hon'ble Commission may consider carrying out adequate due diligence and consider market coupling when other proposal to re-design the market gets crystallized and the clarity on the role of the power exchange is achieved.

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D2. Requirement of Approval for Transaction Fees

58. Since inception transaction fees to be charged by power exchanges was not regulated by this Hon'ble Commission and was left to be determined by market forces. In this regard reliance is placed upon Order dated 09.06.2008 passed in Petition No. 38 of 2007 whereby this Hon'ble Commission held that while approving the Rules and Bye Laws of the Exchange, the Commission is not getting into the issue of fees and charges including transaction fees to be charged by power exchanges, since it is commercial aspect, which is to be decided exclusively between the parties. Relevant extract of the Order are: -

"23. We wish to make it clear that notwithstanding the approval of the rules and byelaws by the Commission, the persons enrolling themselves as members or clients of the power exchange or transacting trade on the power exchange in any other capacity shall do so after satisfying themselves of all the commercial aspects covered under the rules and the bye-laws, uninfluenced by the fact that **the Commission has approved them since these are the matters exclusively between the parties**. Under the business rules, the applicant has specified fees and charges such as admission fee, membership and application processing fee, annual membership subscription fee, security deposits, annual client fee, transaction fee, professional charges and the like. While approving the business rules, the Commission have not gone into the basis of charges. Therefore, it is also clarified that the question of fees and charges leviable should also be the concern of the persons desirous of becoming member of the power exchange. The observation in this para shall be notified by the power exchange to its existing members as also to the persons seeking enrolment as member or client in future.

24. The font cover page of the rules and the bye-laws shall contain the following in bold letters of font size not less than 12:-

These rules and the bye-laws, including the business rules have been approved by the Central Electricity Regulatory Commission. However, as observed by the Commission, notwithstanding the approval of the rules and bye-laws by the Commission, the persons enrolling themselves as member or clients of the power exchange or transacting trade on the power exchange shall do so after satisfying themselves of all the commercial aspects including the fees and charges leviable covered under the rules and bye-laws, uninfluenced by the fact that the commission has approved them <u>since these are the matters exclusively between the parties."</u>

59. Even under PMR 2010, transaction fees to be charged by the exchanges was left to be decided by market forces/power exchange. This position was further confirmed by this Hon'ble Commission in Order dated 08.04.2015 passed in Petition No. 06/SM/2015 holding **that PMR 2010 does not impose any cap on the transaction fees charged by the Power Exchanges.** The Power Exchanges are allowed to levy transaction fees as per their Business Rules approved by the Commission. For IEX, the Business Rules (approved by this Hon'ble Commission) give them flexibility/freedom to specify the transaction charges: -

"The Power Market Regulations, as of now, do not impose any cap on the transaction fees levied by the Power Exchanges. The Power Exchanges are allowed to levy transaction fees as prescribed by the respective Exchanges as per their Business Rules approved by the Commission. For PXIL, the relevant portion of Business Rules states that Transaction Fee for Intra Day Contract will be prescribed by Exchange from time to time. Transaction fee will be collected as per the Settlement Cycle applicable to this product. Exchange reserves its right to revise the same as required from time to time.

For IEX, the Business Rules also give them flexibility to specify the transaction charges Transaction Fees - Fees payable by buyer and seller to Exchange for the quantity approved by nodal RLDC at delivery point as specified by the exchange from time to time."

60. In view of the above it is unequivocal that since inception this Hon'ble Commission has allowed power exchanges to fix their fees structure for trading at exchange platform. This is in consonance with the approach being followed by other Regulators like SEBI for Stock and Commodity Exchanges, wherein the Regulator has not fixed the transaction fee being charged by the respective exchanges and has left it open to be determined by competitive forces. Therefore, the existing mechanism qua transaction fee on power exchange is consistent with mechanism followed by the Stock and Commodity exchange regulators.

61. It is submitted that there has been no incident or trigger that has made this Hon'ble Commission consider moving towards regulating the transaction fees. The transaction fees of IEX i.e. 2 paise/unit has remained constant since last 8 years. The competition within the power exchanges and across alternate trading routes to buy/sell power viz. through Trading licensee etc. has ensured that the transaction fees has remained constant during all these years. If both buy and sell side are considered, then the transaction fees shall add up to 4 paise/unit which is still less than the trading margin cap of 7 paise/unit allowed to a Trading Licensee under Trading Licensee Regulations. In view of this, it is submitted that as the competitive forces within power exchanges and across different medium of transactions have been found to be effective in keeping the transaction fees lower, this Hon'ble Commission may not consider regulating the transaction fees and leaving it to be determined on the basis of competition.

62. It is submitted that IEX is a listed Company having public shareholding. Based on the assurance and immunity provided by this Hon'ble Commission to regulatory risk qua transaction fee, the shareholders have invested in IEX. Therefore, this Hon'ble Commission by capping the transaction fee will send a strong anti-investor signal, which in turn will adversely impact the overall endeavor to attract investment in the sector. Therefore, this Hon'ble Commission is requested to continue with the existing framework and allow the transaction fee to be decided by market forces.

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63. It is submitted that neither the Draft PMR 2020 nor the Explanatory Memorandum has provided any framework qua determination of the transaction fees. If transaction fee is to be determined separately for each Exchange, then it would distort the level playing field. At most this Hon'ble Commission may specify a ceiling limit on transaction fee. However, considering the various risks undertaken by the Power Exchanges (such as investment risk, technology risk, default risk, operational risk etc.) the ceiling should be higher than the ceiling imposed on trading margin. In any case lower ceiling would stifle competition and increase entry barrier in the market.

D3. Regulation of Clearing Corporation

64. Presently Clearing and Settlement function is delivered by the Power Exchanges as allowed under PMR 2010. However, overlapping of regulatory jurisdiction between Reserve Bank of India (**RBI**) and this Hon'ble Commission (duel Regulations), particularly in the case of electricity as a commodity whose delivery takes place through an elaborate regulatory mechanism may create ambiguities and delay in regulatory pronouncements. This may also increase difficulties for the Members/Clients in terms of operations, which will eventually hike the transaction cost.

65. It is pertinent here to highlight that the Clearing Corporation of Stock/Commodity Exchanges are explicitly exempted from the PSS Act, 2007 and are regulated by SEBI. In comparison, the size of the clearing & settlement activities of Power Exchanges is miniscule and it only is catering to a single commodity i.e. Electricity. Besides, in the global perspective also, there both the exchange and clearing entity are being regulated by the same regulator as some of the examples are provided below:

S. No.	Name of Exchange	Clearing Entity	Clearing Entity Regulator	
1	New York Stock Exchange (NYSE)	National Securities Clearing Corporation	U.S. Securities and Exchange Commission (SEC)	Yes
2	ICE Futures US ICE Clear U.S		U.S. Commodity Futures Trading Commission (CFTC)	Yes
3	ICE Futures Singapore	ICE Clear Singapore	Monetary Authority of Singapore (MAS)	Yes
4	European energy Exchnage AG	ECC AG	Federal Financial Services Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, BaFin)	Yes
5	Tokyo Stock Exchange & other exchange in Japan	Japan securities clearing corp	Financial Services Agency (FSA)	Yes
6	Nord pool	Nord pool AS	Norwegian Water Resources and Energy Directorate (NVE)	No

7	National Stock	NSE Clearing	SEBI	Yes
	Exchange (NSE)	Limited		
8	NSE International	NSE International	SEBI	Yes
	Exchange	Clearing		
9	Bombay Stock	Indian Clearing	SEBI	Yes
	Exchange	Corporation		
		Limited		
10	Multi Commodity	Multi Commodity	SEBI	Yes
	Exchange Ltd.	Exchange Clearing		
		Corporation Ltd.		

66. Further, as we understand RBI is yet to evolve any guidelines/framework for regulating the Clearing Corporation in the power sector which would create uncertainty for the Power Exchanges in the current scenario. It is submitted that this Hon'ble Commission may consider continuing with regulating the clearing & settlement activities as done in the past for efficient and seamless power market operations.

E. CONCLUSION

67. In view of the submissions hereinabove, it is respectfully submitted that competition is one of the key features to be considered by this Hon'ble Commission while embarking upon the statutory duty of market development. The Electricity Act and the statutory Policies mandate this Hon'ble Commission to ensure that competition is not eliminated by excessive Regulations and price discovery is based on competition. In line with the statutory objective, this Hon'ble Commission created Power Exchanges and promulgated PMR 2010 providing a forward-looking regulatory framework with the view to improve efficiency and reliability of supply, stimulate technical innovation and promote investments.

68. Since inception, it had been indicated that regulation of Power Exchanges would be minimal and restricted to requirements essential and price discovery function will vest with the Exchange, thus encouraging competition. In such enabling and progressive framework, IEX has played a critical role and has been pivotal in development of the power sector in India. The results are there to see, as prices have gone down steadily whereas participation has increased over the years thereby creating a transparent and efficient energy marketplace for delivering affordable and reliable energy to consumers.

69. However, the current proposal to move towards market coupling is a significant departure from the existing framework and antithesis to competition, as price discovery being one of the most essential ingredient of competition amongst the Exchanges will be transferred to a third party being the Market Coupling Operator. This would be a regressive step and contrary to the spirit and intent of Electricity Act. Further, the Draft PMR 2020 does not lay out the role of the Market Coupling Operator, the interplay between the power exchanges and the Market Coupling Operator and the manner for determination for transaction fees. Thus, instead of hurriedly coming to the Draft PMR 2020, these aspects (amongst others as

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stated hereinabove) ought to be considered by this Hon'ble Commission while seeking to heavily regulate 4% of the entire market.

70. IEX has conceptualized its business and substantially invested in the market with the assurance meted out by PMR 2010. However, such assurance has been completely diluted by the present Draft Power Market Regulations 2020 effectively rendering power exchanges to function as mere bid collectors. Under the proposed framework, the incentive for power exchanges to develop new products will get eroded. In effect power exchanges would become weak institutions incapacitated from playing any meaningful role in the market. Over the past 12 years, IEX has functioned in complete adherence to Power Market Regulations and significantly contributed to the power market and furthered vision of the Government and Regulators. Competition in the market along with appropriate regulatory oversight has ensured that the participants have benefited from the market. Market coupling appears to be proposed akin to penalizing IEX for its efficiency while allegedly socializing the inefficiency of the other exchange as may be perceived by this Hon'ble Commission.

71. In terms of Section 66 of the Electricity Act, this Hon'ble Commission is mandated to promote development of the power market and encourage competition. However, it appears that introduction of market coupling by way of draft PMR 2020, may be an exercise under Section 60 of the Electricity Act intending to curtail the market share of IEX. The market share enjoyed by IEX is around 99% of power exchange transactions with 1% constituted by PXIL. Power Exchange constitutes 4% of the total electricity market in India. Thus, in effect IEX merely holds 3.96% of the total electricity market in India and thus cannot be said to be in dominant position let alone abusing such position to adversely affect competition. Such, an approach would adversely affect competition amongst the power exchanges, thereby negating market development.

72. Under the present regulatory framework, two power exchanges are functioning, completely independent of each other. Therefore, the sudden change in the existing regime i.e., to couple both the Power Exchanges without adequate deliberation/consultation would be unfair to the investments made by IEX based on assurances and framework provided by PMR 2010. Further, it would also result in regulatory uncertainty which will adversely affect prospective investments in power market. It is a settled position of law that if based on a representation, a party alters its position then the said party has the legitimate right to seek enforcement of the said representation.

73. In view of the above it is submitted that there are several pertinent issues which need to be deliberated before embarking on such a new regime, such as: -

(a) Why do we need Market Coupling? What are the benefits expected?

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- (b) Why is there a need of adding another organization/layer in the market mechanism?
- (c) Who will be Market Coupling Operator (**MCO**)? Will it be a Private body or a PSU to be decided on a nomination basis? And What are the obligations and liability of the MCO?
- (d) What are the cost implications and how are these costs going to be recovered?
- (e) What would be the role of Power Exchanges after Market Coupling is implemented?
- (f) How will settlement be carried out amongst the exchanges under the proposed framework?
- (g) What will be the role of Power Exchanges once the MCO comes into picture? Is there an equity interest envisaged to keep the existing power exchanges incentivized to exist in the market?
- (h) Is there a roadmap prepared on the objectives that the PMR 2020 seeks to follow to deepening the market while ensuring to adhere to the statutory objective of development of market?

74. Thus, it would be prudent that the Hon'ble Commission carries out adequate due diligence and consider introducing market coupling after other proposals (such as MBED) to re-design the market gets crystallized thereby providing more clarity on the role of power exchanges.

ANNEXURE-II

S.No	Regulation	Draft PMR Regulations, 2020	Comments
1.	2. Definitions and Interpretation	(p) "Contingency Contract" means a contract wherein <u>Continuous</u> Transactions occur	
		on day (T) after the finalization of day ahead transactions and the delivery of electricity is on the next day (T+1);	
2.		(r) "Contract" means an agreement between entered into by seller and/or buyer for sale and purchase of electricity or Renewable Energy Certificate or Energy Savings Certificate or any other product as may be decided by the Commission;	The word 'between' used in the definition should be replaced by word 'entered into by', since in Day ahead contract one to one correlation does not exist.
3.		(ab) "Intraday Contract" means a contract wherein Continuous Transactions occur on day (T) and delivery of electricity is on the same day (T), such that its delivery period does not overlap with the specified delivery period of the Real-time Contract transacted in the same bidding session as that of the Intraday Contract;	The word 'continuous' should be deleted because in proposed regulation 5(2)(a), matching methodology of the contract to be proposed by Power Exchange.

S.No	Regulation	Draft PMR Regulations, 2020	Comments
4.		(af) "Market Coupling" meansthe process whereby collectedbidsfrom all the PowerExchanges are matched, after	The definition of Market Coupling should be deleted as the concept and its implications have not been discussed in detail. It would be premature to insert such half-baked provision which may have far reaching consequences.
		taking into account all bid types, to discover the uniform market clearing price for the Day Ahead Market or Real-time Market or any other market as notified by the Commission, subject to market splitting;	Please refer to the discussion in the detailed note.
5.		(as) "Power Exchange" means an electronic platform for the purpose of price discovery and facilitating transactions in delivery based electricity contracts or transactions in any other contracts as permitted by the Commission;	We strongly feel that the role of Power Exchanges should not be mere facilitation. Even if the role is proposed to be changed, till the separation of Price discovery and Clearing and settlement function, if at all, the Exchange will vests with the responsibility of price discovery and counter party. Further, even after separation of price discovery in DAM, in TAM Exchange will still be providing price matching function. The word 'facilitating' is not defined and the scope is not clear. The definition may be further revised suitably to capture the functions of the power exchanges
6.		(ax) "Settlement Guarantee Fund (SGF)" means a fund created and maintained by Power Exchange and used for settlement of defaults of its members or clients of such members as stipulated in the default remedy mechanism of Power Exchange and shall comprise of any sources of	The requirement for approval of Settlement Guarantee Fund should be dispensed with to avoid additional administrative procedure. It is suggested that the Hon'ble commission may specify the composition of the fund in the Regulations itself. Further, it has proposed that the Clearing and Settlement function shall be hived off from the Power Exchanges to be regulated by RBI under the PSS Act, 2007; whenever it happens SGF will also get transferred to the Clearing Corporation and Hon'ble commission will have no jurisdiction on SGF in that case.

S.No	Regulation	Draft PMR Regulations, 2020	Comments
		funds as may be determined by the Power Exchange with prior approval of the Commission;	
7.		(ba) "Term Ahead Contract" means a contract wherein Continuous Transactions occur on day (T) and physical delivery of electricity is on a day more than one day ahead (T + 2 or more);	The continuous word should be deleted because in proposed regulation 5(3)(a), matching methodology of the contract to be proposed by Power Exchange. There are more than one methodologies available for the auction and matching of transactions and this should be left to the Power Exchanges to propose based on the market needs.
8.	8. Objectives of Power Exchange	The Power Exchanges shall be established and operated with the following objectives: (1) To design electricity contracts and facilitate transactions of such contracts; (2) To <u>facilitate</u> <u>ensure</u> extensive, quick and efficient price discovery and dissemination.	The functions of Power Exchange envisaged since inception has been changed from discovery of price to facilitation of price discovery. Such major shift in regime is not supported by any rationale or consultation process with the Power Exchanges and stakeholders. It is submitted that since the promulgation of PMR 2010, it was assured that price discovery function would remain with the power exchanges. Para 2.3 and 2.6 of the SOR to PMR 2010 specifically envisaged that power exchanges would have the freedom to provide price signal as also function as risk transfer platforms. Therefore, IEX invested in the market with the aforesaid assurance meted out by the PMR 2010 to develop the market. However, such assurance has been completely diluted by the present Draft Power Market Regulations 2020 effectively rendering power exchanges to function as mere bid collectors. The incentive for power exchanges to develop new products will get eroded. The Hon'ble Supreme Court in a catena of Judgments has held that if based on a representation, a party alters its position then the said party has the legitimate right to seek enforcement of the said representation. The Hon'ble Supreme Court has dealt with the Doctrine of Legitimate Expectation as under: - a) If a private party alters its position based on a representation then it is not necessary for the party to prove any damage or detriment as long as the party has simply altered its position.

S.No	Regulation	Draft PMR Regulations, 2020	Comments
			 b) In situations where even though a person has no enforceable right yet he is affected or likely to be affected by the order passed by a public authority the courts have evolved the principle of legitimate expectation. c) 'Legitimate expectations' is capable of including expectations which go beyond enforceable legal rights, provided they have some reasonable basis. d) If a right had been enjoyed previously by private parties then the parties have a legitimate expectation to enjoy the same unless the right has been withdrawn with a rationale behind it. e) Denial of legitimate expectation amounts to denial of rights guaranteed to a party. It may also be noted that after the market coupling gets implemented and MCO constituted the design of contract may have to happen in a different mechanism to be evolved based on the deliberations amongst MCO and Power Exchanges with the approval of Hon'ble Commission. The role of power exchanges will significantly change from that of a 'market maker' to 'bid collector'. In view of the above, Hon'ble Commission is requested to first bring clarity on the objectives of power exchanges post market coupling as there is hardly any objective left with the power
9.	15. Ownership structure of Power Exchange	 (b) 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. (c) A Power Exchange can have a maximum of 49% of its total shareholding owned by entities, which are members or clients, 	 exchanges except to collect bids and transfer it to MCO. The reason to include Clients in the proposed ownership structures is neither clear nor seems rationale as it virtually restricts investment in the Power Exchange by all stakeholders in power sector and all industries. The Clients of the Power Exchange are Open Access consumers who are primarily industry houses in the Country. The Exchanges will virtually be left with no option to seek investment and may not able to comply with the specified norm as most of the potential investors are directly or indirectly clients of the Exchange. Power Exchanges have been operational for more than 11 years. There is no single instance or evidence which can establish that there has been abuse of position of any client having share of more than 5% or having representation on Board of Power Exchange. Therefore, the proposal to cap the shareholding of clients to 5% is unwarranted and will have significant

S.No	Regulation	Draft PMR Regulations, 2020	Comments
		directly or indirectly, either individually or together with persons acting in concert.	adverse impact on attracting investments in power exchanges, as it would virtually exclude all industry houses in the country.
10.	16. Disclosure of information regarding ownership of the Power Exchange	"(1) The Power Exchange shall disclose to the Commission by 30th April each year its category-wise shareholding pattern as on 31st March of that year, or when there is a significant change in the	Para 3.4.6.2 of Explanatory Memorandum states that "3.4.6.2. Disclosure of category-wise shareholding pattern by Power Exchanges shall include details regarding direct and indirect ownership of the Power Exchange by various categories of members such as Trader Members, Proprietary Members, Facilitator Members, their clients and persons acting in concert with them, in order to support compliance with the shareholding norms stipulated in Regulation 15 of the Draft Regulations."
		shareholding or as and when directed by the Commission.	IEX as a listed entity does not have any control over the shareholding of the indirect entities and it would be impractical to comply with this requirement in respect of indirect holding. As Exchange, a listed entity neither have any mechanism or access to member/client group holding/cross holding structures etc.
			Therefore, it is suggested that the onus of ownership has to be with individual member/clients only. (both directly and indirectly).
			Further, it is requested that a format for reporting of Shareholding pattern should be prescribed to avoid any gaps in submission of the information.
11.		(2) The Power Exchanges, which are not listed at stock exchanges, shall maintain and preserve all the relevant documents and records relating to the issue or transfer of its shares for a period of not less than eight years and make them	It is submitted that for listed entity, all the transfer of shares are done online at stock exchange level, without any involvement of Company and it is continuously changing. The Company only have the shareholding status in BENPOS received from RTA on weekly basis reflecting shareholding on that day. Therefore, it would not be practical to comply with the requirement to maintain share transfer records for a listed entity.

S.No	Regulation	Draft PMR Regulations, 2020	Comments
		available to the Commission as and when directed."	
12.	17.Governance structure of Power Exchange	(3) <u>A minimum of twoThe</u> name(s) shall be submitted by the Board of the Power Exchange to the Commission for approval for each vacancy of Independent Directors.	It is submitted that the Exchange in the past has faced difficulties in making panel of independent directors. Further, the independent directors are eminent personalities from the industry and academia. While proposing names of these personalities, the Exchange has to seek their consent and affidavits etc as required under PMR. However, after the approval of the names in the panel of independent director, the actual appointment to the Board may not take place depending on the vacancy in the Board leaving such eminent personalities with a bad taste. This impacts our relationship such eminent personalities and also possibilities of their future appointments to the Board.
			In view of the above, it is suggested that the requirement of approval should be limited for the person to be appointed as independent director of the Board to avoid the undesirable situation as explained above.
13.		(11) No member of Power Exchange or their client shall be on the Board of Directors of any Power Exchange.	The reason to include Clients in the proposed ownership structures is neither clear nor seems rationale as it virtually restricts the investment in the Power Exchange by all stakeholders within the power sector and all other industries. The Clients of the Power Exchange are Open Access consumers who are primarily industry houses in the Country. The Exchanges will be virtually left with no option to seek investment and may not be able to comply with the specified norm as most of the potential investors are directly or indirectly clients of the Exchange.
14.	19. Bye-laws, rules and business rules of Power Exchange	 (2) No amendment to the bye- laws, rules and business rules shall be carried out without prior approval of the Commission: Provided that the application for approval for amendments in 	During the last 10 years of operation it has been experienced that due to long drawn process of approval, Power Exchanges/IEX has not been able to carry out the required modifications in the Bye-laws and Business rules in time, thus, not being able to cater to the needs of the market participants. On many occasions, it has been observed that by the time the proposal is approved by the Hon'ble Commission, the requirements have changed. Therefore, to speed

S.No	Regulation	Draft PMR Regulations, 2020			Com	nments			
		Bye-laws, rules and business rules shall be disposed of by the Commission within 1 month of	• •	•	ested that the timeline should be specified i		•		he bye-laws,
	Power Exchanges.	The tim	The time taken in earlier petitions related to Business Rules & Bye laws is provided below:						
		Provided that the Commission may, through a separate order,	S.No.	Petition Number	Subject	Filed On	Disposed On	Days	
		dispense with the requirement of prior approval for amendment of certain provisions of the bye- laws, rules and business rules;	1	008/MP/2011	Approval of the Exit Scheme	15-03-2011	27-01-2012	318	
			2	095/RC/2014	Amendments in Business Rules	20-05-2014	25-03-2015	309	
	Provided further that such amendments shall be required to be approved by the Board of Directors of the Power Exchange.	3	033/RC/2017	Amendments in Business Rules	15-02-2017	10-10-2018	602		
		to be approved by the Board of Directors of the Power							
20.	22. Reporting about Members of the Power Exchange	(2) In case any discrepancy is found in the transactions of a member in contravention of these regulations, the Commission may, after giving the member of the Power Exchange an opportunity of being heard in the matter, direct the Power Exchange to revoke <u>or suspend</u> the membership of such member for a time period as may be deem fit by the <u>Commission</u> . Any such direction	Minor s consider	00	ave scope for lenie	ency subject	to gravity	of the m	natter under

S.No	Regulation	Draft PMR Regulations, 2020	Comments
		will be without prejudice to any action against the Power Exchange under these regulations.	
21.	23. Power Exchange transaction fee	NoPowerExchangeshallchargetransactionfeeexceeding such fee as approvedby the Commission:ProvidedthattheProvidedthattheProvidedthatthePowerExchangeswhichExchangeswhichhavegrantedregistrationbytheCommission prior to the date ofnotificationoftheseregulationsshallberequiredtoobtain	The proposal to regulate transaction fee is a U-turn on the policy adopted by Hon'ble Commission since inception of the Power Exchanges. Such moves are generally adopted by Regulators in case of any incidence of abuse of market power by an entity. However, Hon'ble Commission has not given any such rationale while proposing to regulate Transaction Fee. It is noteworthy that the National Electricity Policy 2005 [Clause 5.8.8] and Tariff Policy 2016 [Clause 4(a)&(b)] issued by Ministry of Power (MoP) under Section 3 of the Electricity Act provides that steps should be taken to ensure 'regulatory certainty' so as to minimize perceptions of regulatory risks, ensure financial viability of the sector and generate investor's confidence to attract investments.
		approval of the transaction fee to be charged by the Power Exchange within a period of three months of the date of notification of these regulations.	Further, the transaction fees of IEX has remained constant since last 8 years. The competition within the power exchanges and across alternate trading routes to buy/sell power viz. through Trading licensee etc. has ensured that the transaction fees has remained constant during all these years and is less than the trading margin cap of 7 paise/unit allowed to a Trading Licensee under Trading Margin Regulations. In view of this, it is submitted that as the competitive forces within power exchanges and across different medium of transactions have been found to be effective in keeping the transaction fees lower, regulating the transaction fees should not be considered. In view of the above Hon'ble Commission is requested not to include such clause.
			Further, if at all, the Hon'ble Commission is contemplating to regulate the transaction fees then the Regulations should specify the framework based on which the transaction fees can be approved. In this regard, it is pertinent to mention that the approval of transaction fees cannot be exchange specific as this would distort the level playing field of the power exchanges. The

S.No	Regulation	Draft PMR Regulations, 2020			Comments				
			Commission can instead provide a transaction fees cap in the Regulations. Considering that the Power Exchanges take much more risk viz. investment risk, technology risk, default risk, operational risk etc. the transaction fees cap should be higher than the cap provided to Trading Licensees under Trading Licensee Regulations.						
22.	or Suspension of Contracts by theseeking permission to introduce a new contract under clause (1) of this Regulation, shall submit to the Commission completelon to by			It is submitted that, during the last 11 years of operations it has been experienced that due long drawn process of approval, Power Exchange/IEX has not been able to launch the necontracts/products at the Exchange in time, thus, not being able to cater to the needs of mark participants. On many occasions, it has been observed that by the time proposal is approved by the Hon'ble Commission, the requirements have changed. The time taken to dispose some of the earlier petitions are provided below:					
	following: (i) Type of contract; (ii) Price discovery and matching methodology proposed;	S.No.	Petition Number	Subject	Filed On	Disposed On	Days		
		1	120/2008	Approval of Term Ahead Contracts (TAM)	13-10-2008	31-08-2009	322		
		(iii) Timelines, including commencement of bidding and	2	483/MP/2014	Approval for Cross Border Transactions (CBT)	14-12-2014	26-05-2016	529	
	duration of bidding session	duration of bidding session till	3	187/MP/2016	Approval for Green Day Ahead Market (GDAM)	21-09-2016	31-07-2017	313	
		delivery commences; (iv) Delivery mechanism and	4	011/RC/2019	Introduction of New Bid (Order) Types	28-12-2018	14-01-2020	382	
	(v) Risk management mechanism including margining and final price settlement	3	5	25/MP/2019	Approval of Green Term Ahead Market (G-TAM)	27-11-2018		624	
		• The ex	The timeline be 1 month isting provision	o the process it is most humbly r e of approval of contract should of modification in contract specif ed in the Regulations should b	I be specified	in the regula	for other than		

S.No	Regulation	Draft PMR Regulations, 2020			Commen	ts	
23.	27. Clearing and Settlement	Provided that the Commission shall within 1 month dispose of application for approval of new contract by Power Exchange; Provided further that after approval, the modification in the specifications other than the above mentioned parameters can be done by the Exchange itself with intimation to the Commission within seven days of effecting the said modifications. The Power Exchange shall enter into an agreement in writing for Clearing and Settlement of any transaction of electricity undertaken on the Power Exchange with an entity established in accordance with	drawn pr The Clea Commiss complexi explicitly size of th catering	aring and settlements sion to avoid over ties and transaction exempted from the he clearing & settle to a single commod	proval. nt function should co rlapping of regulato cost. Clearing Corpo PSS Act, 2007 and a ment activities of Pow lity i.e. Electricity. Bes	ontinue to be Regulated by ry jurisdiction and increase vation of Stock/Commodity Ex are regulated by SEBI. In con wer Exchanges is miniscule a sides, in the global perspective egulated by the same regulato	the Hon'ble operational changes are nparison, the and it only is e also, there
		the provisions of the Payment and Settlement Systems Act, 2007:	the exam	nples are provided be Name of	elow: Clearing Entity	Regulator	C&S
				Exchange			Hived off
		Provided that Power Exchanges which have been granted registration by the Commission prior to the date of notification of	1	New York Stock Exchange (NYSE)	National Securities Clearing Corporation	U.S. Securities and Exchange Commission (SEC)	Yes
			2	ICE Futures US	ICE Clear U.S	U.S. Commodity Futures Trading Commission (CFTC)	Yes
			3	ICE Futures Singapore	ICE Clear Singapore	Monetary Authority of Singapore (MAS)	Yes

S.No	Regulation	Draft PMR Regulations, 2020			Commer	nts	
		these regulations shall be required to transfer Clearing and Settlement function to an entity established in accordance with the provisions of the	4	European energy Exchnage AG	ECC AG	Federal Financial Services Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, BaFin)	Yes
		Payment and Settlement Systems Act, 2007, within a	5	Tokyo Stock Exchange & other exchange in Japan	Japan securities clearing corp	Financial Services Agency (FSA)	Yes
		period of one year from the date of notification of these	6	Nord pool	Nord pool AS	Norwegian Water Resources and Energy Directorate (NVE)	No
		regulations or such other period as may be approved <u>directed</u> by	7	National Stock Exchange (NSE)	NSE Clearing Limited	SEBI	Yes
		the Commission, whichever is later;	8	NSE International Exchange	NSE International Clearing	SEBI	Yes
			9	Bombay Stock Exchange	Indian Clearing Corporation Limited	SEBI	Yes
			10	Multi Commodity Exchange Ltd.	Multi Commodity Exchange Clearing Corporation Ltd.	SEBI	Yes
			clearing of appro	and settlement funct priate regulatory fran nent of approval of the	ion to an entity establ nework specified by F	timeline provided by Commiss ished under PSS Act is subjec Reserve Bank of India (RBI). T Id be changed to as and whe	t to existence Therefore, the

S.No	Regulation	Draft PMR Regulations, 2020	Comments
24.	29.	(4) Indemnification by Power	The indemnity should be limited to the activities carried out by Power Exchange.
	Miscellaneous	Exchange –	
	Provisions	(a)	
	relating to		
	transaction on	(b) The Power Exchange shall	
	Power	indemnify that in case of	
	Exchange	curtailment, the Central	
		Transmission Utility, National	
		Load Despatch Centre,	
		Regional Load Despatch	
		Centres and State Load	
		Despatch Centres shall not have	
		any financial liability on account	
		of inability of Power Exchange,	
		for any reason whatsoever, to	
		achieve the complete matching	
		between the advice of the	
		National Load Despatch Centre	
		and the final schedules.	
25.	31. Information	(4) The Power Exchange shall	The demand supply curves are published for unconstrained solution for DAM and RTM as
	Dissemination	publish on its website, data	decided by Hon'ble Commission.
	by Power	tables with unconstrained	
	Exchange	aggregate demand and supply	
		curves for Day Ahead and Real	
		Time each type of contract.	
		(8) Power Exchange shall create	The requirement of publishing document would be duplicity as for each type of contract, the
		and maintain a document on its	details of algorithm used is explained in the Business Rules and same is available on the
		website providing detailed	website of the Exchange. Therefore, such requirement should be dispensed with.

S.No	Regulation	Draft PMR Regulations, 2020	Comments
		description of the algorithm used	
		for price discovery for all type of	
		contracts. The description shall	
		include bid types, details of how	
		the algorithm results in	
		maximisation of economic	
		surplus taking into account	
		various bid types and	
		congestion in transmission	
		corridor, which shall be updated	
		with every new version of the	
		price discovery algorithm:	
		Provided that Power Exchanges	
		which have been granted	
		registration by the Commission	
		prior to the date of notification of	
		these regulations shall publish	
		this document on their website	
		within a period of three months	
		from the date of notification of	
		these regulations.	
26.	32. Market	(5) The Market Surveillance	Timeline of 15 days for submission of the market surveillance report would be very stringent
	Surveillance	Committee shall submit	as the analysis of the market data of all products (RTM has 48 market sessions in day) and
	by Power	quarterly surveillance report to	the availability of independent director who heads the committee takes considerable time.
	Exchange	the Commission within <u>15 days1</u>	Therefore, at least 1 month should be provided to submit the report to the commission.
		month after the end of every	
		quarter and shall include the	
		following but not limited to:	

S.No	Regulat	ion	Draft PMR Regulations, 2020	Comments
27.	34.	Exit	The Power Exchanges shall get	Saving clause to be inserted for the already approved Exit Scheme of existing Power
	Scheme		their exit scheme in the event of	Exchanges.
			closure of the Power Exchange	
			or revocation of registration of	
			the Power Exchange, approved	
			by the Commission at the time of	
			registration. The exit scheme	
			shall provide the manner in	
			which:	
			(1) the running contracts on the	
			Power Exchange shall be closed	
			or the succession plan	
			for all transacted contracts; and	
			(2) any claims pertaining to	
			pending arbitration cases,	
			arbitration awards, liabilities or	
			claims of contingent nature and	
			unresolved investors complaints	
			or grievances lying with the	
			Power Exchange would be	
			settled by the Power Exchange.	
			Provided that the Exit Scheme of	
			Power Exchanges approved by	
			the Commission prior to the	
			notification of these regulations	
			shall be deemed to be approved	
			under this regulation.	

S.No	Regulation	Draft PMR Regulations, 2020	Comments
28.	Regulation 37. Objectives of Market Coupling	Draft PMR Regulations, 2020 (1) Discovery of uniform market clearing price for the Day Ahead Market or Real-time Market or any other market as notified by theCommission; (2) Optimal use of transmission infrastructure; (3) Maximisation of economic surplus, after taking into account allbidtypesandthereby creatingsimultaneousbuyer- seller surplus.	 The proposed objectives for introducing market coupling seems untenable on following grounds: The proposal will stifle competition amongst the power exchanges Power Exchange will not have any incentive to develop the bring new products of develop market Diminish the value proposition of the Power Exchanges built over a period of time. Standalone coupling will not fulfil any objectives such as liquidity and efficiency improvement rather it will disrupt the existing market which has gained efficiency & trust of the market participants The proposal is pre-mature and the Hon'ble Commission has itself rejected in Petition No. 158/MP/2013. Inconsistencies amongst the various proposals in the regulations such as increased net worth vs separation of price discovery function etc. will require re-amending the Regulations – Amendment should be proposed when clarity is achieved on the overall market design along with role of power exchanges As a principle, Centralised approach is not suitable with increased RE penetration and other changes taking place in market viz. grid scale batteries, electric vehicles, solar roof top, demand response of consumers etc. Uniform Clearing Price: It is not relevant when the transaction volume in Exchanges is only 4% and IEX share is 99% in DAM & RTM. Price will not vary much across Exchanges as Bids will essentially be homogenous in nature. Differential price will provide arbitrage opportunity and it will lead to convergence of prices – market will get coupled through the arbitrage mechanism
			 Not a pre-requisite for Financial Products and the choice of settlement price will rest with the SEBI & MCX – clarity will emerge through Joint Working

S.No	Regulation	Draft PMR Regulations, 2020	Comments
S.No.	Regulation	Draft PMR Regulations, 2020	 Group to be constituted recommended by Committee on Efficient Regulation of Derivatives e. DSM is a frequency linked price vector mechanism. Buyer or seller can not control or predict the grid situation therefore arbitrage is not possible. 9. Optimal use of transmission a. It is not relevant when the transaction volume in Exchanges is only 4% and IEX share is 99% in DAM & RTM b. Adequate transmission corridor is available - Only 0.4% congestion in Transmission corridor during FY 20 c. Pro-rata allocation of transmission corridor does not leave any further scope for optimisation in the surplus capacity scenario. Implementation of NOAR will further improve the Transmission corridor allocation and utilization – coupling is not required. 10. Maximisation of economic surplus a. No scope in current market when Exchanges is only 4% and IEX share is 99% in DAM & RTM b. May not lead to maximization of economic surplus with bid aggregation due to presence of block bids (all or none selection) or complex bid structures c. Significant trade-off involved viz. i. Price discovery in centralised manner will negatively impact the innovation ii. Will not be able to accommodate complex bid structure required with increased RE penetration & other changes in the market
			•
			Standalone market coupling proposal without MBED/redesigning of market will not yield any benefit and will distort the market. The proposal of market coupling will change the course of

S.No	Regulation	Draft PMR Regulations, 2020	Comments
			market development therefore in-depth study should be carried out along with wide stakeholder consultations. Please refer to the note for detailed discussion.
29.	38. Designation of Market Coupling Operator	38. Designation of Market Coupling Operator Subject to provisions of these regulations, the Commission shall designate a Market Coupling Operator who shall be responsible for operation and management of Market Coupling.	 Requires clarity on several issues: What would be the criteria of such designation? Whether MCO will be Govt. entity or private entity? What would be the process of recovery of cost of the functions carried out by MCO? Whether it would be regulated by tariff? What charges will be levied by MCO? If system operator will become MCO, whether there will be any conflict involved? There are numerous questions and issues need to be answered before incorporating such entity therefore it would be pre-mature to create such entity. Therefore, this clause should be deleted.
30.	39. Functions of the Market Coupling Operator	39. Functions of the MarketCouplingOperator(1)The Market CouplingOperator, with the approval ofthe Commission, shall issue adetailedprocedureforimplementingMarket Couplingincludingmanagementofcongestionintransmissioncorridor,thetimelinesforoperatingprocess,informationsharingmechanismwiththePower Exchanges and any otherrelevantmatters.(2)The algorithm for enablingMarketCouplingshallbedeveloped and managed by the	 Requires clarity on several issues: What would be powers of MCO? What is the procedure in case of any mistake/default by MCO? What is the liability to be taken up by MCO? Whether MCO will indemnify PX for any mistakes/damages? Is there any back up procedure will be there in case of failure of Market coupling? How settlement of the transactions will be done between Exchanges? What would be the procedure of settlement post hiving of C&S? Many of these issues can-not be done through procedures. It requires regulations. There are numerous questions and issues need to be answered before incorporating such entity therefore it would be pre-mature to create such entity. Therefore, this clause should be deleted.

S.No	Regulation	Draft PMR Regulations, 2020	Comments
		Market Coupling Operator and	
		implemented with the approval	
		of the Commission.	
		(3) Market Coupling Operator	
		shall create and maintain a	
		document on its website	
		providing detailed description of	
		the algorithm used for price	
		discovery. The description shall	
		include bid types, details of how	
		the algorithm results in	
		maximisation of economic	
		surplus taking into account	
		various bid types and	
		congestion in transmission	
		corridor, which shall be updated	
		with every new version of the	
		price discovery algorithm.	
		(4) The Market Coupling	
		Operator shall use the algorithm	
		to match the collected bids from	
		all the Power Exchanges, after	
		taking into account all bid types,	
		to discover the uniform market	
		clearing price, subject to market	
		splitting.	
		(5) The Market Coupling	
		Operator shall communicate the	
		results of the auction to the	

S.No	Regulation	Draft PMR Regulations, 2020	Comments
		Power Exchanges in a transparent manner.	
31.	42. OTC	42. The objectives of the OTC	The Hon'ble Commission has proposed to introduce a new entity i.e. OTC platform.
	Platform	Platform shall be: (1) To provide an electronic platform with the information of potential buyers and sellers	It is submitted that such platform will impact liquidity in the existing market as such platform will fragment the market and will lead to inefficient price discovery.
		of electricity;(2) To maintain a repository ofdata related to buyers and	The rationale and need behind introducing OTC market is not clear as no explanation has been provided in the draft Regulations or explanatory memorandum to this effect.
		sellers and provide such historical data to Market Participants; (3) To provide such services as advanced data analysis tools to Market Participants.	The Draft Regulations have proposed introduction of OTC platform for information sharing of buyers & sellers which could result into bilateral transactions. The liquidity in the spot exchanges is important for efficient and robust price discovery. When the liquidity of the existing power exchanges has remained stagnant at 4% and the need is felt to enhance the liquidity, introduction of OTC platform may further fragment the market and affect the liquidity. Further, the Hon'ble Commission may find it difficult to regulate such platform and ensure compliance from them.
			The Hon'ble Commission is aware about the fact that over the years Short-term market share has been stagnated at 10-11% and Power Exchanges are at just at 4%. The proposed OTC market will get volume from 10-11% market share thereby reducing share of traders and power exchanges. The reduced share means reduced volume which will lead to low liquidity for Power Exchanges. The objective of power exchanges is to work towards increasing liquidity in the

S.No	Regulation	Draft PMR Regulations, 2020	Comments
			market and such attempt of the Hon'ble Commission will dent the objectives envisaged in the Power Market Regulations and will fragment the existing market.
32.	44. Eligibility Criteria for registration of OTC Platform	(2) A Power Exchange or Trading Licensee or any of their Associates or grid connected entities shall not be permitted to set up, operate, or have any shareholding in an OTC Platform.	under Power Market Regulations. The rationale behind exclusion of Power Exchanges are not clear as in effect the Commission is proposing that the entities which are not regulated by the
33.	47. Obligations of the OTC Platform	 47. Obligations of the OTC Platform 1) The OTC Platform shall not engage in the negotiation, execution, clearance or settlement of the contracts. 2) The OTC Platform shall maintain neutrality without influencing the decision making of the Market Participants in any manner. 	It is not indicated in the regulations as how such OTC platform can charge from its participants and is there any cap on such charges or not.

Comment on Market Coupling

- 1. Complete Reversal from the earlier approach
- 2. Stifle the competition amongst the power exchanges
- 3. No incentives for the power exchanges to bring innovation in the new product or development of market
- 4. Three objectives specified in the Draft Regulations & Explanatory Memorandum
 - Uniform Clearing Price
 - Not relevant in the current scenario (4% volume through PXs & 99% market with IEX)
 - Price is not expected to vary much due to homogenous bids exchanges are located in same geography & catering to same market – Prices in DAM & RTM are also converging
 - Any difference of prices will create arbitrage opportunities market forces through participation of multiple intermediaries across different products will tend to converge the prices
 - Not a pre-requisite for introduction financial market commodity exchanges/SEBI will have the prerogative to choose the reference price – can also through the JWG to be constituted under Committee for Electricity Derivatives
 - DSM prices is currently linked with weighted average price in DAM the same can be continued – there cannot be an arbitrage opportunity as the DSM is a frequency linked mechanism and participants cannot predict or control the grid parameters

• Economic surplus maximization

- Not relevant in the current scenario (4% in Power Exchanges; 99% with IEX)
- Need to ascertain whether aggregation of bids will lead to economic surplus maximization with the presence of block bids (All or none type)
- Significant trade-offs involved:
 - Centralization of Price Discovery will take away the incentives from the Power Exchanges to innovate new products or develop market – affect the growth & overall participation of market
 - Centralization of Algorithm will not be able to accommodate complex bid structure as harmonization of bid structure/market would be required amongst all the power exchanges
 - additional layer of bureaucracy would increase the administrative complexities and cost
- Social welfare at an overall level will negate the benefit due to lower price discovery – choice between lower price vs efficient market
- Optimal Utilization of Transmission Corridor
 - Not relevant in current scenario (99% market share with IEX)
 - Utilization of transmission corridor will not improve as it is presently allocated by the System Operator amongst the power exchanges on a pro-rata basis
 - Allocation & utilization of Transmission Corridor will further improve with implementation of NOAR
- 5. Market coupling is considered as an enabling provision for implementation of MBED but no provisions related to MBED. Market coupling as a standalone proposal is not going to achieve any of the objective increasing liquidity in the market, efficiency enhancement etc. In the present circumstances, there is no reason to disrupt the market which has gained efficiency and trust over the years
- 6. Market Coupling is a major shift in the market design several pertinent questions need to be deliberated. Draft Regulations have suggested that the MCO will come out with Detailed

Procedure however, many of these issues may also require changes in Regulations also. Indepth study should be carried out on MBED & Market Coupling and then accordingly the Regulations should be framed.

- 7. It is also pertinent to understand the role of power exchanges. Without price discovery function and clearing & settlement functions Power Exchanges have no meaningful role to play. Why would the Members have to go through the Power Exchanges to carry out their transactions they can simply use the MCO interfaces to achieve the same. While considering the overall market design with MBED it is important the role of power exchanges may also be revisited to provide them any meaningful role apart from bid collection.
- 8. Keeping an enabling provision in the PMR will make the Regulations inconsistent and give opposite signals to the market participants. Some of the provisions are given below:
 - Net worth of Rs. 50 crores (clearing & settlement)
 - Demutualization of Shareholding
 - Maximization of economic surplus & audit
 - Requirement of approval of SGF etc.

It will create entry barriers – why a new exchange would enter the market with the investment in technology etc. when the market is going to be coupled or for that matter will an existing exchange also invest.

- 9. Is Commission intending to again propose amendments if coupling is going to be notified soon as many of the provisions would become meaningless? Are the exchanges again going to revise their Business Rules & Bye Laws within few months? What if MBED can't be implemented in the current form and would not require market coupling at all?
- 10. Based on the above, it is prudent that the Hon'ble Commission carries out the adequate due diligence with in-depth study and stakeholder consultations and consider market provisions in PMR when other proposal to re-design market gets crystallized and clarity on the the role of power exchanges is achieved.