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## **Comments/Suggestions on Draft Power Market Regulations 2020**

**By : P.K.Agarwal, Individual**

The draft regulations on Power Market in India is a welcome step since the power sector in India is progressed much since 2010, when Hon'ble commission brought out its first Power Market regulations. Though most of the clauses are well drafted and to the point of present need on Indian power sector, however at some places there is need of more detailing so as regulations may not be mis interpreted and used for the advantages of certain organizations but disadvantages to the stakeholders at large.

I am, **P.K.Agarwal** having experiences of 39 years in power sector out of which 24 years in grid management specifically in electricity market and automation of operations. I was working as Director (Market Operations) in POSOCO Ltd and got retired on 30<sup>th</sup> June 2020. I am forwarding my comments/suggestions in my individual capacity with the wish to serve power system fraternity with my experience whatever I could gather in my whole service life.

Below are my concise observations, comments and suggestions on the Draft Market Regulations for kind considerations by Hon'ble commission. I sincerely hope that my efforts will add some value to the endeavor of Hon'ble commission.

### **PART – 1 - Preliminary**

1. **Clause 2 (1) (e)** – Automated Audit Trail – No doubt that automated audit trail is the industry's best practice to do any forensic after any mis-happening in any IT systems. But generally, it has been seen that audit trails are being stored on the production servers itself. In case of any mishap, these audit trails may also become unrecoverable. Hence doing forensic and finding root cause of mishap become impossible. **Hon'ble commission should mandate to transfer and store all audit trails, server logs, etc. on a separate server (generally called Sys Log Server) in real-time and should have backup stored on cloud for disaster recovery.**

### **PART -4 - Power Exchange**

1. Clause 17 (4a) – Independent director – Hon'ble commissions has recognized the role of Independent Director in the governance of power exchange and mandated desired qualifications for appointment of Independent Director of a Px. **To be certain of the qualifications of the person to be appointed as Independent Director, the person should be registered with "Independent Director Data Bank" and should have passed on-line proficiency test** as mandated by "New rule 6 of Fifth Amendment to Companies (Appointment and Qualification of Directors) Rules, 2014" for the listed companies.
2. Clause 28 (4) – Audit of algorithm – Hon'ble commission has mandated the audit of algorithm used in software for the price discovery and market splitting. This is a highly appreciable step and would increase transparency. But algorithm is a paper presentation only and its actual implementation in the software application is a

different story. Implementation is done by writing the instructions in a computer programming language by the programmers. There are possibilities of introduction of unintended or intended algorithmic bias which may result in unfair outcomes. Hence, access to source code of the software is must for fair audit of the algorithm and its implementation in the software used for price discovery and market splitting by the power exchange. **Hon'ble commission should mandate access to source code of the software to the auditor by power exchange.**

3. Clause 28 (7) – Security Audit – Hon'ble commission has introduced the security audit clause first time in Draft Power Market Regulation which is again a welcome step in the wake of increasing cyber attacks on power system. However, the proposed clause is open and subjective as it does not provide any assessment criteria for security implementation and its audit. Rule 8 of Information Technology (Reasonable Security Practices and Procedure and Sensitive Personal Data and Information) Rules 2011 under Information technology Act 2000 provides the criteria for the reasonable security practices and procedure and suggest implementation of **Information Security Management System (ISMS)** as per ISO 27001 international standard. **Hon'ble commission should mandate implementation of ISMS as per ISO 27001 standard as the minimum requirement. On and above ISMS, power exchange should formulate its cyber security and cyber resilience framework to manage risk to systems, networks and databases from cyber-attacks and threats.**
4. Clause 29 (2) – **Secure Communication Channel is a vague word and should be replaced with “dedicated link communication channel or VPN.**

In the draft regulations following clause which was existing as clause 35 in Power Market Regulation 2010 has been removed.

**Quote**

*“A Power Exchange which has less than 20 % market share for continuously two financial years falling after a period of two years of commencement of its operations shall close operations or merge with an existing Power Exchange with in a period of next six months. (For this purpose Market size is defined as the total Annual Turnover in Million Units of all contracts transacted in all the Power Exchanges in each financial year) Provided that this regulation shall not apply if there are only two Power Exchanges in operation.”*

**Unquote**

Clause F9 of Explanatory Memorandum on draft power market regulation 2010 states :-

**Quote**

*“.....The rationale behind this stipulation is to concentrate liquidity for improved pricing of contracts while at the same time avoiding monopoly of a single exchange”*

**Unquote**

It is understood that Hon'ble commission has already accorded permission of setting up of third power exchange in the country which will further be diluting the limited liquidity in power market. The liquidity has already been divided even within a exchange due to introduction of RTM. **In view of the clause 35 of Power Market Regulations 2010 should be included in Power Market Regulations 2020.**

### **PART -5 – Market Coupling**

1. Clause 39 – Functions of Market Coupling Operator – Since, after Hon’ble commission designate the Market Coupling Operator, the responsibility of price discovery and market splitting will be assigned to Market Coupling Operator. In such case the Sub-clauses 3 to 8 of clause 28 equally applies to the Market Coupling Operator also. **Hence, sub-clauses 3 to 8 of clause 28 should be make applicable to Market coupling Operator also.**
2. Clause 39 (4) – When Market Coupling Operator will be running price discovery and market splitting engine, bid types have to be standardized across all power exchanges otherwise unfair output may result due to different types of bids especially in case of dissimilar exotic bid types.

### **PART – 6 – OTC Platform**

1. Is all OTC contract shall be compulsorily be transacted though OTC platform? If not then it will conflict with the provisions of Ministry of Power Resolutions vide Gol Gazette Notification number 92, dated 30-Mar-2016 “Guidelines for short-term (i.e. for a period of more than one day to one year) Procurement of Power by Distribution Licensees through Tariff based bidding process”. Wherein procurement of short term power by distribution companies is mandated though bidding process. DEEP E-Bidding portal has also been launched for this purpose.
2. What will be the status of DEEP E-Bidding portal after new Power Market Regulation 2020 comes in force? Will it be deemed OTC platform or it has to apply for registration as provided in draft regulations?

General Suggestions: **Paving the Way for Decentralized Blockchain based Peer-to-Peer trading platform** – Government of India has ambitious target of 175 GW renewable energy generations capacity by 2022. Out of which 40 GW capacity is targeted from rooftop solar. Roof top solar plants are, in general, small in capacity. Many rooftop solar plants are installed for self-consumption only but many a times they have surplus energy due to various reasons like high transaction cost besides fix cost of participation in power exchange . This energy is not being harnessed in the grid leading to wastage of cheap generation capacity. This capacity will be sizeable after achieving the target. Since, participation in centralized power exchange is costly and not viable for these rooftop plant owners, **Hon’ble commission should pave the way for decentralized peer-to-peer trading platform in the Power Market Regulations.** To reduce the overhead of third-party trading platform, blockchain technology may be used for secure and cheaper alternative. One such pilot project is being carried out by UP state wherein they are developing peer-to-peer trading platform on pilot basis for trading form roof top plants.



(P.K.Agarwal)