

# Draft Power Market Regulations, 2020

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Individual

*Good judgment comes from experience;  
experience comes from bad judgment.*

*-- Mark Twain*

# Definition of Power Exchange

- 2 (as) “Power Exchange” means an **electronic platform** for the purpose of **facilitating transactions** in delivery based electricity contracts or transactions in any other contracts as permitted by the Commission;
- It is very restrictive definition and can create legal ambiguity.
- Securities Contracts (Regulation) Act, 1956

2(j) “stock exchange” means— (a) any body of individuals, whether incorporated or not, constituted before corporatisation and demutualisation under sections 4A and 4B, or (b) a body corporate incorporated under the Companies Act, 1956 (1 of 1956) whether under a scheme of corporatisation and demutualisation or otherwise, for the purpose of **assisting, regulating or controlling the business of buying, selling or dealing in securities.**]

# Scope of Regulations

- Whether DEEP platform comes under purview of this Regulations. It needs to be clarified , as it is not mentioned in Regulation 3

2 (ae) “Market” means a platform where buyers and sellers ,either directly or through Trading Licensees, or through Power Exchanges, buy or sell electricity or Renewable Energy Certificates or Energy Savings Certificates or any other product as may be decided by the Commission.

Can somebody trade without any license from Commission :

SECURITIES CONTRACTS (REGULATION) ACT, 1956 [42 OF 1956]

An Act to prevent undesirable transactions in securities by regulating the business of dealing therein, 1 [\*\*\*] by providing for certain other matters connected therewith.

“Stock exchanges other than recognised stock exchanges prohibited.

19. (1) No person shall, except with the permission of the Central Government, organise or assist in organising or be a member of any stock exchange (other than a recognised stock exchange) for the purpose of assisting in, entering into or performing any contracts in securities.

# Net worth

- While 20% Volume condition has been removed which is really appreciable as it was a barrier to entry.
- Enhancement of Net worth to 50 Crs will be new entry barrier specifically if in future some entrepreneur want to bring Green Exchange.
- As in past Net worth Criteria was not enforced strictly, enhancing it need better justification than volume of trade :
  - ( a) What risk actually Exchange bear : Whether 28(2) did not provide sufficient security as :  
*28(2) The bids entered by a member of Power Exchange shall be first checked against availability of funds or collateral in the risk management system before being accepted in the bid book of the Power Exchange.*  
*As it is mostly a cash a carry system , so much Net worth requirement will create hinderance or some staggering Networth requirement may be specified.*
  - (b) With transfer of Payment and settlement to Clearing corporation as proposed whether same risk level persist? So issue of Networth may please be reconsidered.

# Audit of Software

- The Regulation 28(4) need to be enforced strictly . Also Commission may please arrange to publish Audit findings at least once in a three years in public domain.
- Due to non availability of reports in Public domain , an unnecessary doubt about price discovery Mechanism like “ Daya Kuch to gadbad hai” is raised about effectiveness of Regulatory oversight in media and some top level functionaries also fall prey to this wrong propaganda . Power Exchanges, are complying with Regulatory provisions so need protection from such mischief and only through dissemination of reports it is possible.

# Price Discovery Algorithm

- Regulation 31 A regarding publication of price discovery mechanism is welcome step and it will create more public confidence.
- Regulation 32(5) Market Surveillance committee Report : As per the content of the report , it appears that this reports will be only for the Commission. Option of publication of abridged redacted version, hiding confidential information in public domain may be considered to increase the public confidence .

# Inter operability of clearing House

- Since 1 July , 2019 , SEBI has implemented inter operability of clearing house for BSE, NSE and MSEI .
- Interoperability is a mechanism that allows market participants to choose any clearing corporation to settle their trades, irrespective of the exchange where they executed their trades.
- Earlier , participants who trade on multiple exchanges had to necessarily arrange for margin and capital separately at each of the three stock exchanges and their respective clearing corporations
- As transfer of payment and settlement is proposed to clearing houses now, it will be better that it is done with inter operability .
- It will save margin money requirement and funds will be optimally utilized.
- For example Rajasthan may opt for trading in both IEX and PXIL , so availability of margin money at one Clearing house would be sufficient .
- Interoperability saves participants from glitches arising in case of problems in a particular exchange or its clearing platform. Many other advantage to trader.

# Market coupling

- In Regulations 37 the objective of Market Coupling are mentioned.
- Drafting of Regulation:
  - Overall Objective of Regulations is mentioned in the beginning but objective of individual regulation( clause) are not given
  - In Act or Regulations the objectives are generally given in Preamble. For giving rationale of various provisions of Regulation, Explanatory memorandum or in Statement of Reason is used. It is not mentioned in main body of Regulations. It may create legal hurdle later as it may be difficult sometime , to show post implementation results of each provision matching exactly with objective.



# Objective of Power Exchanges

- Regulation 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 **facilitate extensive, quick and efficient price discovery** and dissemination

An exchange serves the following two basic functions

1. Order matching and price discovery-proposed to be transferred to MCO
2. Clearing and Settlement- Gone

Or they would be just Order book facilitator ? This question if decided will reduce 54 page Regulations to half .

# Market Coupling

- Identification of problem: Whether solution is proposed to solve the difficulty due to two existing exchanges
- Survey of 36 International Power Exchanges
- 24 Exchanges are working on one country one exchange system
- 10 Exchanges are operating in more than one country but there they are only one exchange in country except Austria.
- Out of this 10 , two ( EXAA and GME) are working in same country ( Austria) .
- Except these two and PXIL and IEX no example of two Exchanges operating in same country.

# Market Coupling

- Market coupling in the European Union Internal Electricity Market (IEM) refers to the integration of two or more electricity markets **from different areas** through an **implicit cross-border (transmission) allocation mechanism**. **Before than two separate auctions for energy and transmission corridors were in vogue.**
- (<https://www.emissions-euets.com/internal-electricity-market-glossary/481-market-coupling>)
- The plain language description of the market coupling is that it consists **in selling electricity together with interconnection capacity, instead of separately** (Energy: New market design to pave the way for a new deal for consumers, the European Commission MEMO/15/5351, 15 July 2015).
- **Coupled markets (who have cross border transmission capacity available) , imply that power flows out of a market when prices in a neighbouring market are higher, inversely, power will be imported when domestic prices are higher.**
- So it couple energy and transmission for market operation for optimum utilization of Transmission , **not couple two rival exchanges operating in same area. Proposed draft of market coupling is a sort of Price coupling between two or more exchanges operating in same “market”.**
- **The purpose of market coupling in European union is that it** eliminates the remaining "wrong-way flows" (a 'wrong-way flow' hour occur when the final net nomination on a **given border** takes place from the higher to the lower price zone, with a price difference of at least one euro/MWh).
- Are such instances of “Wrong way flows” available in Indian power market operation at the instance of market splitting and are they present due explicit allocation of transmission corridor.

# Purpose

## Rationale for Market Coupling

1. **Multi-Power Exchange model**, such as that exists in India, may result in scenarios in which ( So actual problem is Multi Power Exchanges)

a) Difference in Discovered price

Yes , but it is not too large and if two exchanges exist in which there is lot of difference in Liquidity , this is bound to happened.

b) Allocation of transmission corridor amongst the Power Exchanges is not optimal owing to skewed market share of various Power Exchanges; or

“Optimal” and ‘allocation” issue became relevant when transmission capacity is not adequate as in case of EU cross border and it affect the price to final consumer due to market splitting..

With large investment in ISTS since 2012 ( annual Transmission Charges increased from 8743 Crs to 35600 crs ) It is now adequate

Instances of congestion have reduced to a large extent. Affected volume From its peak value of 5.69 BU( 16%) is decreased to to 0.47 BU ( 0.9%) in a year

c) overall economic surplus is not maximized since buyers and sellers may be spread out on various Power Exchanges: Basically it is a call to be taken by market participants why they want to opt for a particular exchange.

# Purpose( Contd...)

## Rationale for Market Coupling

**2 Financial products in the electricity market** would require uniform price discovery in the Day Ahead and Real-time markets

Not necessary. Derivative products at different exchange may chose different “Underlying” and as per usual practice they will go with high liquidity for correct shadow price.

Candor Investing : “It is about what Sherlock Holmes says – don’t just look at what the evidence is, also look at what evidence is missing.”

Basically two issues of MBED need solution: 1. Optimum transmission allocation 2. Uniform price ( Not compulsory)

Transmission: With PPA transaction shifting to market , additional transmission capacity corresponding to allocation in CPSU will add to ATC so chance of congestion would not increase as any time only 70% of that capacity is used.

# Solution

- Someone asked me to find solution that with two market price whether it is possible to run MBED:
- So revisited the Staff paper on proposed MBED and its settlement procedure .  
( [http://cercind.gov.in/2018/draft\\_reg/DP31.pdf](http://cercind.gov.in/2018/draft_reg/DP31.pdf))
- A well intended discussion paper but it still has many implementation issues both legal and commercial.
- Focus more on financial settlement but no certainty of volume get cleared in DAM as per requisition. Not a fully Double side blind auction as bid price of majority of players get exposed (bid near variable cost).
- It became clear why Present draft Power market Regulation kept option of MCO based Price discovery and Exchange based Price discovery open . Clear Pragmatic approach of Honorable Commission.
- **So, if market coupling is subjected to implementation of full scale MBED, and all states are ready to come on board ,the it can be tried else It should not be done.**

# Solution

- Is it be possible to operate market base economic dispatch MBED system with two exchanges :
- Yes . First whole PPA system will not shift to MBED in one go as it would be disruptive in nature, second lot of legal hurdles need to be overcome to shift past low cost PPAs where fixed cost recovery is almost over to MBED. It should be smoothen with an option to buyer and seller to gradually move towards this.
- Give option to Generator-beneficiary duo to “List” or “Anchor” their contract any one exchange of their choice , like listing is done in BSE /NSE, then price discovered on that platform will be used as settlement price. All beneficiary of this Anchored contract would participate in same exchange.
- CERC Staff paper :Para 4.9 ***“If a generator and a Discom are exposed to the same Market (Area) Clearing Prices, then such an arrangement (BCS) removes their exposures to variation in that Market Clearing Price (MCP) for a given contract quantity over a given contract period.***
- The only extra efforts which may require here how to avoid “congestion” , for this some weightage of long term ownership in Transmission, may need to be given by allocating add on transmission ( proportionate capacity coming out of LTA) to the Exchange where that contract is listed . Similar to existing explicit allocation of transmission among Exchanges.
- Scheme of thing as envisaged in the staff paper that all discoms and all generators should shift to MBED is not necessary , all parties to a PPA must go together and essentially this will be done on mutual consent. Few teething problem may be there but that can be resolved.
- Although sub optimal ,this will smoothen the adoption of MBED in staggered manner.
- A big bang that all State GENCO , Distribution company demand, IPP and CPSU come together on Exchange Platform appears to be difficult , so considering such futuristic scenario, major changes should not be done.

# Exchange Business

- Competitive advantage: Example of NSE Vs BSE
- As Financial market or power market , not much products differentiation is possible , competitive advantage is achieved through :
  - A. Liquidity
  - B. Back office processes for customer support
- Historically Exchange evolved by trading **among its members** and it helps in risk dispersal and business expansion. If common price discovery , no incentive to become a member of particular Exchange.
- If price discovery happened elsewhere , then present Exchanges would work merely as order book maker and lose enthusiasm to innovate and to make effort towards market expansion.

Commoditize the business as book building will require small investment in IT system only , no need of such elaborate system , basically a broker.

## Evidence based Regulations

- Put 7 days data into a basket ( 5 normal and two days of market split) , run a price discovery to see how much more power or cheap power can move .
- Let Power market achieve critical mass of say 20%.

**It took more than 20 years to EU and PJM to achieve single price discovery . Exchanges, need to be nurtured, not demoted to level of broker .**

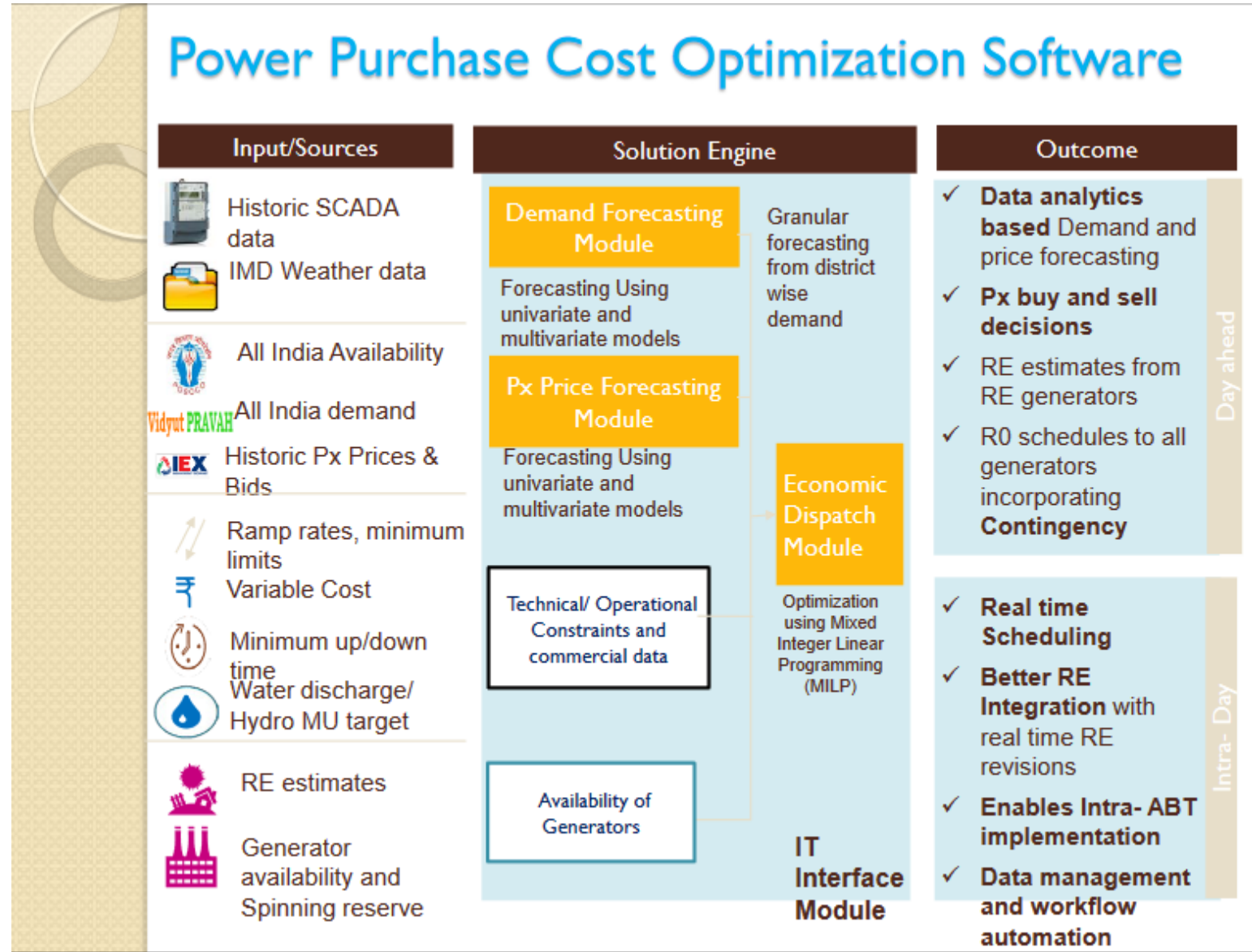


# Competition for territorial market

- Even after implementation of Market coupling territorial rights of National Exchanges preserved in EU,
- Commission decision against EPEX Spot and Nord Pool Spot (COMP/39.952, 5.3.2014): two leading European power exchanges agreed not to compete for their spot electricity trading services in the EEA
- Allocation of territories: agreement to protect traditional markets by not attacking each other's „home markets“ (EPEX: France, Germany, Austria; NPS: Norway, Sweden, Denmark, Finland) for spot electricity trading services .
- For this breach of Art. 101 TFEU, the Commission imposed total fines of € 6 mio. on EPEX and NPS, after reduction by 10% each for agreeing to settle the case
- (*Reference: Competition Law in the Energy Sectors Market Coupling, Market Splitting, Power Exchanges and the Role of Competition Law Robert Klotz Partner, Brussels*)

# Power procurement Optimization

- What is being tried through MBED is to achieve power procurement optimization and for that some disruptive and difficult changes like Market Coupling etc are being suggested, are Top Down approach.
- As an alternative few bottom up approaches have been implemented under DFID- GOI cooperation project coordinated by CEA.
- **Enabler or Enforcer , choice is clear for benevolent Regulator.**



(FOLD presentation, Telangana)

# Enabler or enforcer

- In past few years , enabling regulations/orders like RTM and Security Constrained Economic Dispatch ( SCED) brought cost optimization and real benefit for stakeholders.
- Market based Ancillary Service is eagerly awaited for optimum Renewable Grid Integration and introduction of Storage.

**Thank You.**

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