

CENTRAL ELECTRICITY REGULATORY COMMISSION

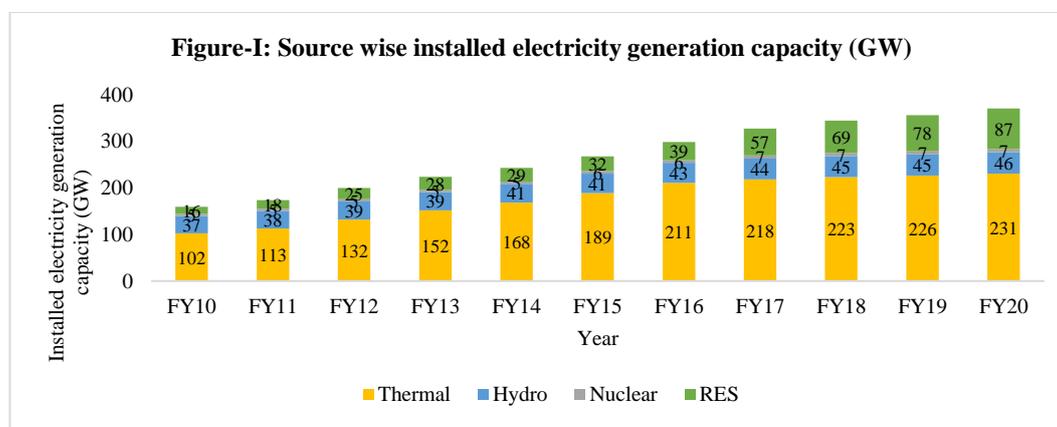
NEW DELHI

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

Explanatory Memorandum

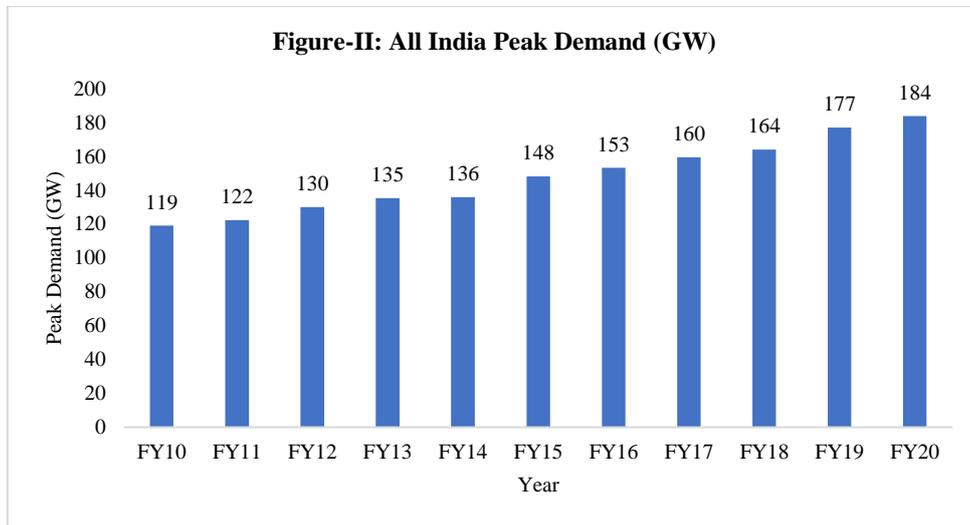
1. Introduction

- 1.1. The Central Electricity Regulatory Commission, in short, CERC (hereinafter also referred to as “the Commission”) in exercise of powers conferred under Section 66 read with sub-sub-section (y) of sub-section (2) of Section 178 of the Electricity Act, 2003 (36 of 2003) and clause (f) of paragraph 5.7.1 of the National Electricity Policy had earlier notified the Central Electricity Regulatory Commission (Power Market) Regulations, 2010 (hereinafter referred to as the Power Market Regulations, 2010) on 21.01.2010. There have been two amendments to the Power Market Regulations, 2010 till date, which were notified on 09.04.2014 and 27.12.2019.
- 1.2. Power generation in India has grown at a tremendous pace in the past decade or so. As shown in the chart below (**Figure-I**), overall installed electricity generation capacity has grown at a CAGR of 8.8% during the period from 2009-10 to 2019-20, reaching 370 GW as on 31st March 2020. Over the same period, installed capacity of renewable energy sources (RES) has grown at a CAGR of 18.8% to reach 87 GW as on 31st March 2020. The share of RES in total installed capacity has gone up from 10% to 24%, largely driven by various reforms introduced by the Government of India to provide necessary support for the growth of renewable energy-based generation in the country.



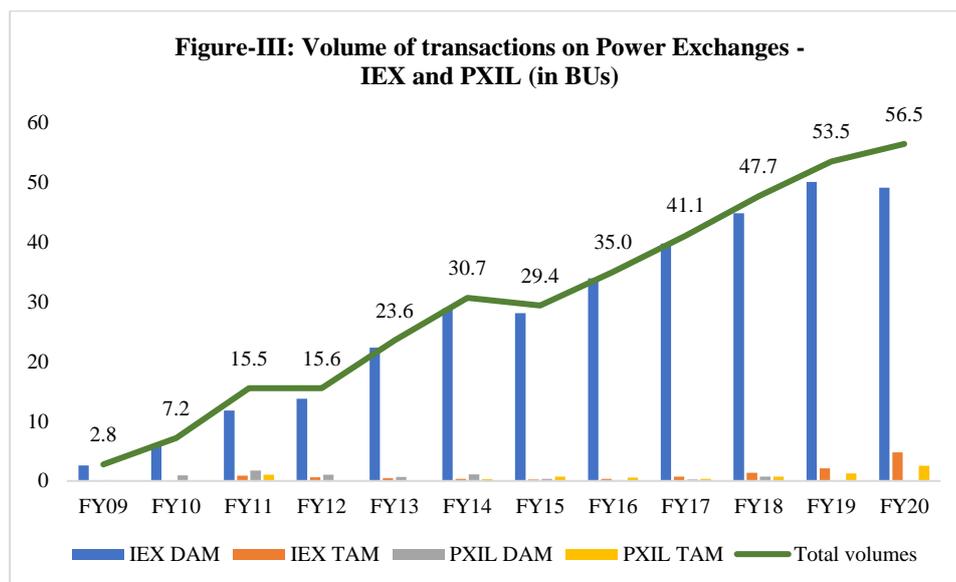
Source: CEA Monthly Executive Summary Reports

1.3. Along with growth in power generation capacities, there has also been a consistent growth in demand for electricity in the past decade. The national peak demand has grown at a CAGR of 4.4% during the period from 2009-10 to 2019-20 to reach 184 GW as on 31st March 2020 as shown in the chart below (**Figure-II**).



Source: CEA Monthly Power Supply Reports

1.4. Further, volume of electricity transacted on the Power Exchanges has also registered significant growth over the last 10 years, as shown in the chart below (**Figure-III**). Whereas total volumes in Day Ahead market (DAM) have grown at a CAGR of 33.6% between 2008-09 and 2018-19, the volumes in Term Ahead market (TAM) have grown at a CAGR of 47.3% during the period from 2009-10 to 2018-19.



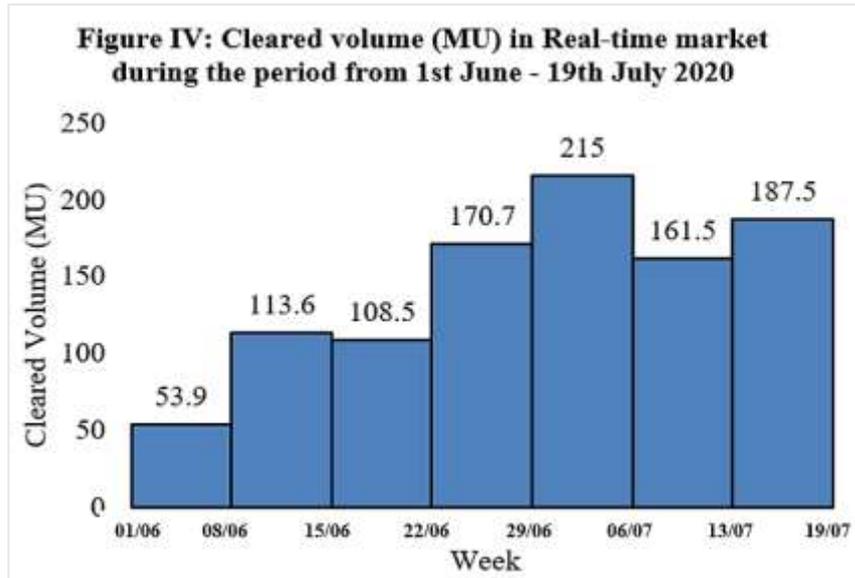
Source: CERC Report on Short-term Power Market in India, 2018-19

1.5. Volume of electricity transacted through traders under short-term bilateral transactions has grown at a CAGR of 8.0% in the last 10 years, increasing from 21.9 BU in 2008-09 to 47.3 BU in 2018-19.

1.6. **Key drivers for change in the Indian Power Market**

1.6.1. **Growth in demand:** Demand for electricity is expected to grow at a robust pace in the short to medium term, not only because of general economic growth but also due to various measures undertaken by the government of India. Some of these measures include '24*7 Power For All' which seeks to provide access to electricity to each household and to improve the quality of life of citizens through higher electricity consumption by providing reliable and quality power at affordable prices, and Atmanirbhar Bharat Abhiyaan, which stipulates tariff policy reforms to promote industry through focus on reduction in cross subsidies and time bound grant of open access. In order to address the growing demand and varying requirements of power by the distribution companies and open access consumers, new electricity products will be required on the Power Exchanges as well as in the Over the Counter (OTC) Market in power sector.

1.6.2. **Increasing depth of market:** With the increased proportion of renewable energy in the generation mix, new electricity products will be required by the market participants to balance the power portfolio and maintain the frequency within the allowable band. Since forecasting errors on account of renewable energy reduce closer to the delivery period, it is expected that the demand of such electricity products will be catered mainly through the short-term markets, thereby resulting in increase in share of short-term transactions in the electricity market. In order to address these requirements, the Commission introduced the Real-time market to enable trading closer to the period of delivery, which was launched on Power Exchanges on 1st June 2020. Since the start of Real-time market, total cleared volumes have exceeded 1,000 MUs during the period from 1st June 2020 to 19th July 2020. Total week-wise cleared volumes in Real-time market are provided in the figure below (**Figure-IV**). It is noted that distribution companies are increasingly transacting in the Day Ahead and Real-time markets for overall portfolio optimisation.



Source: IEX and PXIL website

In addition to Day Ahead and Real-time markets, the Commission envisages that products such as capacity contracts and ancillary services contracts would also be required on Power Exchanges and OTC Markets to address generation adequacy and system stability issues.

- 1.6.3. **Information exchange and need for market monitoring and surveillance:** The open access consumers currently rely on information available with a few intermediaries in the Indian power market. The price signals provided by these intermediaries may be distorted in select cases. Further, it may be expensive for relatively smaller open access consumers to approach the market through these intermediaries. Hence, there is a requirement of aggregator web-based platforms that can bring together potential buyers and sellers of electricity. Such web-based platforms would provide the facility to buyers and sellers to search and locate their counterparty across the country. This may allow the open access consumers and generators to connect and discover prices efficiently. In the context of deepening of market with increasing reliance on short term energy market, and requirement of aggregator platforms for information exchange amongst buyers and sellers, it is considered imperative to strengthen the process of market oversight by the Commission, with the objective of undertaking data collection, analytics and surveillance in order to detect and prevent activities such as market manipulation, insider trading, cartelization and abuse of dominant position by any market

participant, as well as ensuring that prices in the market are discovered in a transparent and competitive manner.

- 1.7. In the backdrop of the above mentioned market requirements, the Commission has proposed the Central Electricity Regulatory Commission (Power Market) Regulations, 2020 (in short "Draft Regulations") thereby repealing the Power Market Regulations, 2010.

2. Overall structure of the Draft Regulations

- 2.1. Part – 1 of the Draft Regulations provides for the definitions and interpretation of the various terms which have been used in the Draft Regulations.
- 2.2. Part – 2 of the Draft Regulations provides the overall scope of the regulations and extent of their application. The Draft Regulations shall apply to Power Exchanges and other market participants such as grid connected entities, members of Power Exchanges, trading licensees, Market Coupling Operator and shall also apply to the OTC Market. In terms of contracts, the Draft Regulations shall apply to contracts transacted on Power Exchanges and contracts in the OTC Market. Contracts transacted on Power Exchanges shall include Day Ahead Contracts, Real-time Contracts, Intraday Contracts, Contingency Contracts, Term Ahead Contracts, contracts relating to Renewable Energy Certificates, contracts relating to Energy Savings Certificates, and any other contracts (including Capacity Contracts and Ancillary Services Contracts), as may be approved by the Commission.
- 2.3. Part – 3 of the Draft Regulations specify the salient features of all types of contracts as listed in Part – 2, relating to price discovery, scheduling and delivery of transactions and contract and settlement conditions.
- 2.4. Part – 4 of the Draft Regulations specify provisions pertaining to Power Exchanges, which inter alia, cover aspects related to their registration, net worth requirement, ownership and governance norms, qualification and disqualification for appointment and continuation on the Board of Directors, management, membership in Power Exchange, requirements relating to IT infrastructure and trading system, information dissemination, market surveillance, revocation of registration and grievance redressal of members and their clients over Power Exchanges. Salient features relating to Part – 4 have been discussed under Section 3.4.
- 2.5. Part – 5 of the Draft Regulations provide enabling provisions for market coupling among the Power Exchanges. Details relating to rationale for introduction, objectives, and process of market coupling are discussed under Section 3.5.

- 2.6. Part – 6 of the Draft Regulations specify provisions for OTC Platforms. Details relating to rationale for introduction, objectives, and obligations of OTC Platforms are discussed under Section 3.6.
- 2.7. Part – 7 of the Draft Regulations contain provisions for market oversight by the Commission. Details relating to the need for enhancing market oversight and the procedure for market oversight are discussed under Section 3.7.

3. Salient features of the Draft Regulations

3.1. Day Ahead Contracts and Real-time Contracts

The Draft Regulations seek to ensure that the price discovery mechanism of Power Exchanges adopt the principle of maximisation of economic surplus (sum of buyer surplus and seller surplus) for Day Ahead Contracts and Real-time Contracts. Hence, the Draft Regulations clearly specify the features for price discovery that should be followed by the Power Exchange. Accordingly, Regulation 5 of the Draft Regulations provides the following:

(1) Day Ahead Contracts and Real-time Contracts:

(a) Price discovery:

- (i) Price Discovery shall be done by Power Exchanges or by Market Coupling Operator, as and when notified by the Commission.*
- (ii) Price discovery mechanism shall adopt the principle of maximisation of economic surplus (sum of buyer surplus and seller surplus) taking into account all bid types.*
- (iii) The bidding mechanism shall be double sided closed bid auction on day ahead basis or on real time basis, as the case may be.*
- (iv) The price discovered for the unconstrained market shall be a uniform market clearing price for all buyers and sellers who are cleared:
Provided that in case of congestion in transmission corridor, market splitting shall be adopted.*

3.2. Intraday Contracts and Contingency Contracts

- 3.2.1. The CERC (Power Market) (Second Amendment) Regulations, 2019 provide the following definition for Intraday / Contingency Contract:

“(o) “Intraday Contract / Contingency Contract” means the contract where the transaction (not being a collective transaction) occurs on day (T) after the closure of day ahead transaction window and the delivery of power is on the same day (T) except for the duration of the specified period of delivery of the real-time market, or next day (T+1) and which is scheduled by Regional Load Despatch Centre or National Load Despatch Centre.”

- 3.2.2. In order to provide clarity with regard to the definitions of Intraday Contracts and Contingency Contracts, sub-clauses (ab) and (p) respectively of clause (1) of Regulation 2 of the Draft Regulations propose the following:

“ “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;

“Contingency Contract” means a contract wherein Continuous Transactions occur on day (T) after the finalization of day ahead transactions and the delivery of electricity is on the next day (T+1);”

- 3.2.3. The Draft Regulations further provide that the bidding mechanism and price discovery mechanism for Intraday Contracts and Contingency Contracts shall be as approved by the Commission based on the proposal of the Power Exchange.

3.3. Term Ahead Contracts

- 3.3.1. A Committee on “Efficient Regulation of Electricity Derivatives” was constituted by the Ministry of Power, Government of India, to examine the technical, operational and legal framework of derivatives. The Committee, in its report dated 30.10.2019, has recommended the following regarding the regulatory jurisdiction of SEBI and CERC:

1. *All Ready Delivery Contracts and Non-Transferable Specific Delivery (NTSD) Contracts as defined in the Securities Contract (Regulation) Act, 1956 (SCRA) in electricity, entered into by members of the power exchanges, registered under CERC (Power Market) Regulations, 2010, shall be regulated by CERC subject to following conditions, namely:*

- i. *the contracts are settled only by physical delivery without netting;*

- ii. *the rights and liabilities of parties to the contracts are not transferable;*
- iii. *no such contract is performed either wholly or in part by any means whatsoever, as a result of which the actual delivery of electricity covered by the contract or payment of the full price therefor is dispensed with;*
- iv. *no circular trading shall be allowed and the rights and liabilities of parties to the specific delivery contracts shall not be transferred or rolled over by any other means whatsoever;*
- v. *the trading shall be done only by authorised grid connected entities or trading licensees on behalf of grid connected entities, as participants;*
- vi. *the contracts can be annulled or curtailed, without any transfer of positions, due to constraints in the transmission system or any other technical reasons, as per the principles laid down by CERC in this regard. However, once annulled, the same contract cannot be reopened or renewed in any manner to carry forward the same transaction.*
- vii. *all information or returns relating to the trade, as and when asked for, shall be provided to CERC, who shall monitor the performance of the contracts entered into on the power exchanges.*

2. *Commodity derivatives in electricity, other than Non-Transferable Specific Delivery (NTSD) Contracts as defined in SCRA shall fall under the regulatory purview of SEBI.*

3. *The Central Government reserves the right to impose additional conditions from time to time as it may deem necessary.*

4. *A Joint Working Group between SEBI and CERC may be constituted with Terms of Reference as agreed in the Report of the Committee.*

3.3.2. The definitions of ready-delivery contracts, commodity derivative and non-transferable specific delivery contracts, as defined in the Securities Contract (Regulation) Act, 1956 are reproduced below:

Regulation 2(ea): "ready delivery contract" means a contract which provides for the delivery of goods and the payment of a price therefor, either immediately, or within such period not exceeding eleven days after the date of the contract and

subject to such conditions as the Central Government may, by notification in the Official Gazette, specify in respect of any goods, the period under such contract not being capable of extension by the mutual consent of the parties thereto or otherwise:

Provided that where any such contract is performed either wholly or in part:

- I. by realisation of any sum of money being the difference between the contract rate and the settlement rate or clearing rate or the rate of any offsetting contract; or*
- II. by any other means whatsoever, and as a result of which the actual tendering of the goods covered by the contract or payment of the full price therefor is dispensed with, then such contract shall not be deemed to be a ready delivery contract;*

*Regulation 2(bc): "**commodity derivative**" means a contract —*

- i. for the delivery of such goods, as may be notified by the Central Government in the Official Gazette, and which is **not a ready delivery contract**; or*
- ii. for differences, which derives its value from prices or indices of prices of such underlying goods or activities, services, rights, interests and events, as may be notified by the Central Government, in consultation with the Board, but does not include securities as referred to in sub-clauses (A) and (B) of clause (ac);*

*Regulation 2(ha): "**specific delivery contract**" means a **commodity derivative** which provides for the actual delivery of specific qualities or types of goods during a specified future period at a price fixed thereby or to be fixed in the manner thereby agreed and in which the names of both the buyer and the seller are mentioned.*

*Regulation 2(ca): "**non-transferable specific delivery contract**" means a **specific delivery contract**, the rights or liabilities under which or under any delivery order, railway receipt, bill of lading, warehouse receipt or any other documents of title relating thereto are not transferable.*

- 3.3.3. Consequently, the Draft Regulations allow the Power Exchanges to introduce Term Ahead Contracts (which include Non-Transferable Specific Delivery (NTSD) Contracts) for any duration, where the physical delivery of electricity occurs on a date more than one day ahead from the date of transaction. The delivery duration of such

Term Ahead Contracts can be daily, weekly, monthly, seasonal, yearly or any period beyond a year.

- 3.3.4. In this backdrop, the Commission has proposed the following definition of Term Ahead Contracts under sub-clause (ba) of clause (1) of Regulation 2 of the Draft Regulations:

“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);”

- 3.3.5. The Power Exchanges may, through an application made to the Commission, seek permission to introduce new contracts under Term Ahead Markets in accordance with the provisions of Regulation 25 of the Draft Regulations.

3.4. Power Exchange

3.4.1. Eligibility criteria

3.4.1.1. Power Market Regulations, 2010 provide that for making application for registration of Power Exchange, the applicant shall be a company limited by shares incorporated as a public company or a consortium of companies and main objects of the applicant company shall be to primarily set up and operate Power Exchange. Power Market Regulations, 2010 stipulate other conditions such as net worth, ownership structure and governance structure for operating a Power Exchange. This has led to varying interpretations regarding the conditions required to be fulfilled by an applicant at the time of making the application for registration of Power Exchange.

3.4.1.2. In view of the above, the eligibility criteria for making application for registration of a Power Exchange has been revised to ensure that at the time of making the application, the applicant fulfils the norms stipulated for net worth, demutualisation, ownership and governance structure of the Power Exchange, and that the Directors of the applicant satisfy the requirements relating to qualification for appointment on the Board of Directors of the Power Exchange. Accordingly, Regulation 9 of the Draft Regulations provides the following:

“The applicant for establishing a Power Exchange shall fulfil the following criteria at the time of making application for registration of Power Exchange:

(1) The applicant is a company limited by shares incorporated or deemed to be incorporated under the provisions of the Companies Act, 2013;

(2) The applicant is demutualised;

Explanation: For the purposes of this sub-regulation, the term "demutualised" means that the ownership and management of the applicant is segregated from the trading rights, in terms of these regulations.

(3) The main objects of the applicant company is to establish and operate a Power Exchange.

(4) The applicant has a Net worth of minimum Rs. 50 crores as per the audited special balance sheet as on any date falling within 30 days immediately preceding the date of filing the application for grant of registration.

(5) The Directors of the applicant satisfy the requirements relating to qualifications and are not disqualified for appointment on the Board of Directors as specified in Regulation 18 of these regulations.

(6) The applicant satisfies the requirements relating to the ownership as specified in Regulation 15 and governance structure as specified in Regulation 17 of these regulations.”

3.4.2. Period of registration of Power Exchange

3.4.2.1. Power Market Regulations, 2010 provide for grant of registration to a Power Exchange for a period of 25 years. While it specified that the application for renewal may be filed by the Power Exchange at most 5 years before the expiry of registration, the minimum period before which the application is required to be filed, is not provided in the regulations.

3.4.2.2. The Draft Regulations propose to allow the Commission to grant renewal of registration for a further period of 25 years or for such lesser period as the Commission considers appropriate. Further, the time period for making the application for renewal of registration is proposed to be modified to enable the Commission sufficient time to make inquiries and obtain such information as it may require before granting renewal of registration. Accordingly, Regulation 12 of the Draft Regulations propose, inter-alia, the following:

“xxx (2) The registration of a Power Exchange shall be for a period of twenty-five (25) years from the date of grant of registration unless such registration is revoked or cancelled earlier.

(3) The Commission may, on an application filed by the Power Exchange, after making such inquiries as may be necessary in this regard and after obtaining such information as it may require, renew registration for a further period of 25 years or for such lesser period as the Commission considers appropriate.

(4) An application for renewal of registration shall be filed by the Power Exchange at least one year before the expiry of the period of registration. xxx”

3.4.3. Registration charge

3.4.3.1. The Commission notified the Central Electricity Regulatory Commission (Payment of Fees) Regulations in 2012 (hereinafter referred to as the Payment of Fees Regulations), after the Power Market Regulations, 2010 were notified in 2010. Since the details regarding registration charge are already provided in the Payment of Fees Regulations, Regulation 13 of the Draft Regulations proposes the following:

“(1) Power Exchange shall pay an annual registration charge as specified in the Payment of Fees Regulations.

(2) The annual registration charge shall be payable by 30th of April every year in accordance with the Payment of Fees Regulations.

(3) A Power Exchange shall declare, at the beginning of each financial year, the volume of transactions proposed to be undertaken during the financial year and pay the annual registration charge for the corresponding category:

Provided that in case of any difference between volume of transactions proposed to be undertaken during the financial year and actual volume of transaction at the end of financial year, the annual registration charge shall be adjusted in the registration charge for the next financial year.”

3.4.4. Net worth

3.4.4.1. The Power Market Regulations, 2010 specify minimum net worth requirement of Rs. 25 crores for a Power Exchange when the clearing function is carried out

in-house by a Power Exchange, and Rs. 5 crores once the Power Exchange separates its clearing function to a Clearing Corporation.

- 3.4.4.2. Over the last decade, there has been a significant growth in volumes transacted on the Power Exchanges, with total transactions increasing from Rs. 3,563 crores in 2009-10 to Rs. 22,809 crores in 2018-19¹. Accordingly, in order to ensure adequacy of net worth for Power Exchanges, the Draft Regulations propose to enhance the minimum net worth requirement to Rs. 50 crores, which shall be required to be maintained at all times. The Draft Regulations also provide that in case the net worth of a Power Exchange reduces below Rs. 50 crores, the Commission may allow the Power Exchange to achieve the Net worth within such period as may be considered necessary. Accordingly, Regulation 14 of the Draft Regulations proposes the following:

“A Power Exchange shall have a minimum Net worth of Rs. 50 crores at all times:

Provided that the Power Exchanges which have been granted registration by the Commission prior to the date of notification of these regulations shall meet the minimum Net worth criteria within a period of six months from the date of notification of these regulations and submit an audited special balance sheet to support the compliance of Net worth requirement;

Provided further that in case the Net worth of the Power Exchange reduces at any time below Rs. 50 crores, the Commission may allow the Power Exchange to achieve the Net worth within such period as may be considered necessary.”

3.4.5. Ownership structure of Power Exchange

- 3.4.5.1. The Power Market Regulations, 2010 define shareholding limit for members of the Power Exchange in order to ensure adequate ringfencing, demutualisation and a dispersed ownership structure.
- 3.4.5.2. Clients having large shareholding in the Power Exchange may exert undue influence over the affairs of the Power Exchange that may create potential conflict of interest situation for the Power Exchange. Hence, the Commission considers it necessary that along with members, the shareholding limit should

¹ Source: CERC Report on Short-term Power Market in India: 2018-19

be applicable for their clients as well as any holding or subsidiary company of the member or client, directors of the holding or subsidiary company and their affiliates, promoter and members of the promoter group of the member or client.

3.4.5.3. The aforementioned entities related to clients fall within the purview of persons acting in concert, which has been defined under sub-clause (ar) of clause (1) of Regulation 2 of the Draft Regulations as follows:

“Persons acting in concert” shall have the same meaning as assigned to it in clause (q) of sub-regulation (1) of Regulation 2 of the Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 2011, as amended from time to time and any re-enactment thereof;

3.4.5.4. Accordingly, Regulation 15 of the Draft Regulations proposes the following:

“(1) The shareholding pattern for equity holders in Power Exchange shall be as follows:

(a) Any shareholder other than a member or a client, directly or indirectly, either individually or together with persons acting in concert, shall not acquire or hold more than 25% of shareholding in the 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, directly or indirectly, either individually or together with persons acting in concert.

(2) The Power Exchanges which have been granted registration by the Commission prior to the date of notification of these regulations, shall within a period not exceeding one year from the date of notification of these regulations, ensure compliance with sub-clauses (a) to (c) of clause (1) of this Regulation.

(3) The Power Exchange shall ensure compliance with the shareholding limits as specified in this Regulation at all times.”

3.4.6. Disclosure of information regarding ownership of the Power Exchange

3.4.6.1. In order to monitor compliance by Power Exchanges to the shareholding limits specified in Regulation 15 of the Draft Regulations, annual disclosure of

category-wise shareholding pattern to the Commission has been proposed under Regulation 16 of the Draft Regulations. Further, the Draft Regulations provide that such disclosure shall also be made whenever a significant change in the shareholding pattern occurs between two annual disclosures, or as and when directed by the Commission. Accordingly, Regulation 16 of the Draft Regulations provides the following:

“(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 shareholding or as and when directed by the Commission.

(2) The Power Exchange 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 available to the Commission as and when directed.”

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.

3.4.7. **Governance structure of Power Exchange**

3.4.7.1. Over the last decade, corporate governance has come to occupy a central role in the operation of the exchanges in India, given the increasing focus on transparency of corporate structures and operations, accountability of management and the board of directors to the shareholders and corporate responsibility towards various stakeholders. Hence, the Commission considers it necessary to strengthen the governance structure specified for Power Exchanges. In this context, Regulation 17 of the Draft Regulations proposes the following:

(a) **Increase the strength of Independent Directors on the Board of the Power Exchange:** While the Power Market Regulations, 2010 provide that

at least one-third of the members of the Board or a minimum of two directors, whichever is higher, shall be Independent Directors on the Board of the Power Exchange, the Draft Regulations propose that Independent Directors shall be at least equal to the number of Shareholder Directors. The Commission is of the view that given the responsibility of the Board to balance various interests, the presence of an equal number of Independent Directors on the Board would improve corporate governance and objectivity in the functioning and decision-making of the Board, thereby also benefitting the minority shareholders.

- (b) **Selection and appointment of Independent Directors:** With a view to ensure that the Independent Directors are selected from diverse fields of work having appropriate qualifications, the Draft Regulations provide for various factors, to be taken into account by the Power Exchanges, before the shortlisted names are submitted to the Commission for approval. The Draft Regulations also state the factors that would indicate presence of conflict of interest, and accordingly disallow the appointment of such a person as Independent Director on the Board.
- (c) **Appointment of Shareholder Directors:** The Draft Regulations have provisions governing the appointment of Shareholder Directors, which shall represent the interests of shareholders and be elected or nominated by the shareholders on the Board of the Power Exchange. Further, the Draft Regulations specify that the manner of election, appointment, tenure, resignation and vacation of Shareholder Directors shall be in accordance with the provisions of the Companies Act, 2013.
- (d) **Representation of members on the Board of Power Exchange:** The Power Market Regulations, 2010 provide that not more than one-fourth of the Board of Directors of Power Exchange shall represent members of Power Exchange. The Commission opines that presence of member or clients on the board of the Power Exchange may lead to potential conflict of interest situations. Hence the Draft Regulations propose that no member of Power Exchange or their client shall be on the Board of Directors of any Power Exchange.

3.4.7.2. Accordingly, Regulation 17 of the Draft Regulations proposes the following:

“(1) The Board of Directors of the Power Exchange shall have the following categories of Directors:

- (a) Shareholder Director;*
- (b) Independent Director; and*
- (c) Managing Director.*

(2) The number of Independent Directors shall not be less than the number of Shareholder Directors on the Board of the Power Exchange:

Provided that for this purpose, the Managing Director shall be included in the category of Shareholder Directors.

(3) A minimum of two names shall be submitted by the Board of the Power Exchange to the Commission for approval for each vacancy of Independent Directors.

(4) The Power Exchange shall ensure that Independent Directors are selected from diverse fields of work and while deciding to propose name of a particular person as an Independent Director, the Power Exchange shall also, take into account the following factors:

- (a) Persons having qualification in the area of law, finance, accounting, economics, management, administration or any other area relevant to the power markets, may be considered;*
- (b) At least one person having experience and background in finance or accounts, shall be inducted;*
- (c) Persons currently holding positions of trust and responsibility in reputed organisations or persons who have retired from such positions, may be considered;*
- (d) Persons who are likely to have interested positions in commercial contracts and financial affairs of the Power Exchange, shall be excluded;*
- (e) Persons who are directors in the board of the promoter entity of the Power Exchange, shall be excluded;*
- (f) Persons who are in any fiduciary relationship with any member of Power Exchange, shall be excluded.”*

(5) The Managing Director shall be a professional qualified in the fields of power sector or finance or management or information technology and hold sufficient experience.

(6) The Managing Director shall function as the Chief Executive of the Power Exchange and all powers in respect of day-to-day affairs of the Power Exchange shall be vested with him.

(7) The Managing Director or any employee of the Power Exchange shall not be directly or indirectly associated with any member of the Power Exchange or client or participant of the Power Exchange or with a holding or subsidiary company thereof.

(8) The Managing Director shall ensure that the details of individual bids of members of the Power Exchange are not shared with the Board of Directors.

(9) The names of persons to be appointed as Shareholder Directors shall be approved by the Board of Directors of the Power Exchange, followed by shareholders' approval and thereafter shall be submitted to the Commission for information.

(10) The manner of election, appointment, tenure, resignation and vacation of Shareholder Directors shall be governed by the relevant provisions of the Companies Act, 2013.

(11) No member of Power Exchange or their client shall be on the Board of Directors of any Power Exchange.

(12) The Power Exchanges which have been granted registration by the Commission prior to the date of notification of these regulations, shall within a period not exceeding one year from the date of notification of these regulations, align the governance structure as specified in this Regulation.”

3.4.8. Bye-laws, rules and business rules of Power Exchange

3.4.8.1. Bye-laws, rules and business rules of Power Exchange cover the principles governing the operation of a Power Exchange, which amongst others, cover the rules governing price discovery and matching mechanism, including market splitting to handle congestion in transmission corridor, reporting of default (delivery of electricity or payment or both) and penalty mechanism,

transaction fee, trading margin for a trader member and service charge for a facilitator member, dispute resolution mechanism, timeline for publishing trading and settlement calendar and transaction timelines.

3.4.8.2. As per the Draft Regulations, the Power Exchanges granted registration by the Commission prior to the date of notification of these regulations shall be required to realign their bye-laws, rules and business rules in accordance with the provisions of the Draft Regulations within a period of six months from the date of commencement of these regulations and the revised bye-laws, rules and business rules shall be placed for approval of the Commission.

3.4.8.3. Power Market Regulations, 2010 provide that any amendment to bye-laws and rules of the Power Exchange shall be made subject to prior approval of the Commission. As approval to any proposed amendment to the bye-laws, rules and business rules requires stakeholder feedback and is a time consuming process, the Commission in the Draft Regulations seeks to accord some flexibility to the Power Exchanges with respect to the amendment of certain provisions of bye-laws, rules and business rules. Accordingly, clause (2) of Regulation 19 of the Draft Regulations provides the following:

“ ...

(2) No amendment to the bye-laws, rules and business rules shall be carried out without prior approval of the Commission:

Provided that the Commission may, through a separate order, dispense with the requirement of prior approval for amendment of certain provisions of the bye-laws, rules and business rules;

Provided further that such amendments shall be required to be approved by the Board of Directors of the Power Exchange.”

3.4.9. Management of Power Exchange

3.4.9.1. Taking into account the current power market scenario and the nature of work performed by the Power Exchanges, the Draft Regulations propose to increase the minimum strength of senior management from two full-time professionals to three full-time professionals, by requiring one person from the Information Technology discipline with at least 10 years of relevant experience and adding Economics as a discipline under the existing head along with Finance,

Commerce and Accounts. Accordingly, Regulation 20 of the Draft Regulations proposes the following management structure:

“(1) The senior management of the Power Exchange shall comprise of at least three full-time professionals having qualifications and experience in the following areas:–

<i>Discipline</i>	<i>Qualification and Experience</i>
<i>Power system operations</i>	<i>Degree in engineering with at least 10 years of experience in the field</i>
<i>Finance, Commerce, Economics and Accounts</i>	<i>CA/ ICWA/ MBA (in Finance)/Post graduate degree in Economics with at least 10 years of experience in the field</i>
<i>Information Technology</i>	<i>Degree in Computer Science/Computer Application/Information Technology with at least 10 years of experience in the field</i>

”

3.4.10. Membership in Power Exchange

3.4.10.1. The Commission is of the view that the nomenclature and functions of each category of member that may be admitted as a member of the Power Exchange should be clearly defined. Accordingly, Regulation 21 of the Draft Regulations provides the following:

“(1) Membership of the Power Exchange shall be of the following three categories:

(a) Trader Member: Any person who has been granted licence for trading in electricity under Trading Licence Regulations, 2020 and admitted as a member of the Power Exchange shall be called a Trader Member. Trader Member shall trade and clear on its own account or trade and clear on behalf of its client:

Provided that a Trader Member or any of its Associates shall not be a Facilitator Member.

(b) Proprietary Member: Any person who is a distribution licensee or a deemed distribution licensee or a grid connected entity and admitted as a member of the Power Exchange shall be called a Proprietary Member. Proprietary Member shall transact and clear through its own account.

(c) Facilitator Member: Any person who is neither a Trader Member nor a Proprietary Member and admitted as a member of the Power Exchange for providing one or more of the following services to its clients to facilitate transactions at the Power Exchange shall be called a Facilitator Member:

(i) IT infrastructure for bidding on electronic exchange platform or skilled personnel.

(ii) Facilitation of clearances for delivery of power:

Provided that the Facilitator Member in no case shall provide any credit or financing or working capital facility to its client.”

3.4.10.2. While the Power Market Regulations, 2010 provide that a Trader Member may provide any credit or financing or working capital facility to their clients, the provision has been deleted in the Draft Regulations as the role of a trading licensee (eligible to become a Trader Member) is already defined in the CERC (Procedure, Terms and Conditions for grant of Trading License and other related matters) Regulations, 2020. Moreover, since Trading has been defined in the Act as purchase of electricity for the purpose of sale thereof, the trading licensee assumes the title of the electricity once it is purchased. Therefore, the trading licensee can provide credit or financing or working capital facility by virtue of being an electricity trader. The Facilitator Members are required to only provide services related to IT infrastructure for bidding or skilled personnel or facilitation of clearances for delivery of power and are not expected to provide credit or financing or working capital facility to their clients.

3.4.10.3. The Draft Regulations also provide that a Trader Member or any of its Associates shall not be a Facilitator Member. This proviso has been inserted to remove ambiguity with regard to membership by any person of the Power Exchange.

3.4.10.4. While the Power Market Regulation, 2010 provide that a Facilitator Member may provide advisory services to its clients related to power prices and the follow-on bidding strategy, the same has been removed in the Draft Regulations, as the Facilitator Members may be privy to certain unpublished price sensitive information of clients that may lead to potential conflict of interest situations while providing such advisory services.

3.4.11. Power Exchange transaction fee

3.4.11.1. The Draft Regulations propose to insert a regulation with respect to the transaction fee charged by the Power Exchanges. Transaction fee has been defined under sub-clause (be) of clause (1) of Regulation 2 of the Draft Regulations as follows:

“Transaction fee” means the fee payable (in Rs./kWh) by members or clients, as applicable, for transactions on a Power Exchange.”

3.4.11.2. In order to protect the interest of the consumers, it is proposed that no Power Exchange shall charge transaction fee exceeding such fee as approved by the Commission. Further, it is also provided that Power Exchanges which have been granted registration by the Commission prior to the date of notification of these regulations shall be required to obtain approval of the transaction fee to be charged by the Power Exchange within a period of three months of the date of notification of the Regulations. Accordingly, Regulation 23 of the Draft Regulations proposes the following:

“No Power Exchange shall charge transaction fee exceeding such fee as approved by the Commission:

Provided that the Power Exchanges which have been granted registration by the Commission prior to the date of notification of these regulations shall be required to obtain 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.”

3.4.12. Trading margin and service charge

3.4.12.1. The regulations governing trading margin currently in force are the Central Electricity Regulatory Commission (Procedure, Terms and Conditions for grant

of trading licence and other related matters) Regulations, 2020. Accordingly, clause (1) of Regulation 24 of the Draft Regulations proposes the following:

“(1) A Trader Member shall charge trading margin in accordance with the provisions of Trading Licence Regulations, 2020 in respect of all transactions carried out through the Trader Member at the Power Exchange...”

3.4.12.2. Further, Power Market Regulations, 2010 provide that the member service charge for Facilitator Members for providing services to their clients shall not be more than 0.75% of the transaction value.

3.4.12.3. In the Draft Regulations, the methodology for calculating service charge for Facilitator Members is proposed to be on basis of paise/kWh rather than on basis of percentage of transaction value, in order to align it to the manner in which Trader Members would charge trading margin.

3.4.12.4. Further, the Commission considers that the service charge cap of two (2.0) paise/kWh would be sufficient to cover the costs associated with operation and maintenance expenses as well as providing adequate returns to the Facilitator Members.

3.4.12.5. Accordingly, clause (2) of Regulation 24 of the Draft Regulations proposes the following:

“...(2) A Facilitator Member shall not charge service charge of more than two (2.0) paise/kWh, including service charges for any subordinate service providers, for providing services for the transactions on Power Exchange:...”

3.4.13. Approval or suspension of Contracts by the Commission

3.4.13.1. The Power Market Regulations, 2010 provide that introduction of any contracts on the Power Exchange require prior approval of the Commission and no distinction is provided between a contract and a bid type on a Power Exchange.

3.4.13.2. With a view to provide some flexibility to the Power Exchanges to respond quickly in a dynamic market scenario, the Draft Regulations propose that the Power Exchanges may introduce new bid types or modify existing bid types conforming to the types and features of the contracts specified in the Draft Regulations, under intimation to the Commission. However, the Power Exchanges may introduce or modify bid types only after consultation with the

stakeholders and in discussion and coordination with the National Load Despatch Centre with regard to any scheduling and delivery related matters.

3.4.13.3. In this context, the terms ‘bid’ and ‘bid type’ have been defined under sub-clauses (f) and (g) respectively of clause (1) of Regulation 2 of the Draft Regulations, as follows:

“Bid” means the electronic document by which a member of a Power Exchange submits price and quantity in relation to a contract, for which it seeks to make a transaction;

“Bid type” means the category of bids with distinct specifications as applicable in relation to each contract to be transacted on a Power Exchange;

3.4.13.4. Accordingly, Regulation 25 of the Draft Regulations proposes the following:

“(1) The Commission may, on its own or on an application made in this behalf, permit any Power Exchange to introduce new contracts as specified in clause (1) of Regulation 4 of these regulations:

Provided that no permission shall be required for the contracts which are being transacted on a Power Exchange on the date of notification of these regulations;

Provided further that the Power Exchanges may introduce new bid types or modify existing bid types conforming to the types and features of the contracts specified under Regulations 4, 5 and 6 of these regulations, after consultation with stakeholders and National Load Despatch Centre, under intimation to the Commission...”

3.4.14. Clearing and Settlement

3.4.14.1. Power Market Regulations, 2010 has detailed provisions for risk management by Power Exchanges, maintenance of settlement guarantee fund, and default remedy mechanism on Power Exchange.

3.4.14.2. It is noted that Payment and Settlement Systems Act, 2007 specifies the following with regard to payment systems:

“Regulation 2(1)(i): “payment system” means a system that enables payment to be effected between a payer and a beneficiary, involving clearing, payment or settlement service or all of them, but does not include a stock exchange;

Explanation: For the purposes of this clause,

“payment system” includes the systems enabling credit card operations, debit card operations, smart card operations, money transfer operations or similar operations;

Regulation 4(1): No person, other than Reserve Bank, shall commence or operate a payment system except under and in accordance with an authorisation issued by the Reserve Bank under the provisions of this Act: ...”

3.4.14.3. Accordingly, it is now proposed that clearing and settlement of all transactions of electricity undertaken on the Power Exchange shall be undertaken by an entity which is established in accordance with the provisions of Payment and Settlement Systems Act, 2007.

3.4.14.4. The existing Power Exchanges currently operate the clearing and settlement function in-house. Therefore, in order to enable these Power Exchanges to comply with the provisions of Payment and Settlement Systems Act, 2007, the Draft Regulations propose to allow a period of one year or such other period as may be approved by the Commission, for the establishment of an entity in accordance with the provisions of Payment and Settlement Systems Act, 2007.

3.4.14.5. During the period of transition and pending the transfer of clearing and settlement function in the manner as stated above, such Power Exchanges shall comply with the provisions relating to clearing and settlement, settlement guarantee fund and default remedy mechanism on Power Exchanges, as detailed in Regulation 27 of the Draft Regulations.

3.4.14.6. The Draft Regulations also provide the following clauses under Regulation 27 of the Draft Regulations with respect to clearing and settlement function for the existing Power Exchanges:

“...(ii) The Power Exchange shall invest the proceeds of Settlement Guarantee Fund in safe investments and ensure that the principal amount is not at risk. Not less than fifty percent (50%) of the proceeds of Settlement Guarantee Fund shall be kept in safe liquid investments, including but not limited to fixed deposits with Scheduled Public Sector Banks, Treasury Bills and Government Securities.

(iii) The Power Exchange shall distribute at least 70% of the return earned on the initial security deposit invested in the financial year to the members of Power Exchange in proportion to initial security deposit of the member and duration for which such deposit was held with the Power Exchange, within 45 days of the last date of the financial year... ”

3.4.14.7. The second clause provides that the Settlement Guarantee Fund maintained by existing Power Exchanges shall invest the proceeds in safe investments and at least 50% of the proceeds shall be kept in safe liquid investments, such as fixed deposits with scheduled public sector banks, treasury bills and government securities.

3.4.14.8. The third clause has been inserted in accordance with the Commission’s Order in Petition No. 33/RC/2017, directing the Power Exchanges to share at least 70% of the return earned on the initial security deposits in the financial year with the members of Power Exchange.

3.4.15. Information Technology Infrastructure and Trading System of Power Exchange

3.4.15.1. The Draft Regulations propose that new Power Exchanges shall get their algorithm for price discovery and market splitting audited before commencement of operations, to establish that inter alia, it complies with the requirement specified in Regulation 5 of the Draft Regulations, as applicable (primarily that relating to maximisation of economic surplus, taking into account all bid types) and thereafter, once in every two years and submit the findings of the audit to the Commission. The resources employed shall have competence in the audit of algorithms and relevant industry certifications such as CISA (Certified Information Systems Auditor) from ISACA or shall have empanelment with the Standardization Testing and Quality Certification Directorate under the Ministry of Electronics & Information Technology.

3.4.15.2. In order to ensure that the Power Exchanges maintain a high degree of security of systems, networks and databases from cyber-attacks and threats, clause (7) of Regulation 28 has been introduced.

3.4.15.3. Accordingly, Regulation 28 of the Draft Regulations proposes the following:

“(4) The algorithm of the software application for price discovery and market splitting shall be in compliance with the requirement specified in Regulation 5 as applicable and methodology mentioned in the bye-laws, rules and business rules of Power Exchange. The Power Exchange shall get the algorithm audited before commencement of operations and thereafter, once in every two years and submit the findings of the audit to the Commission. The resources employed shall have competence in audit of algorithms and relevant industry certifications such as CISA (Certified Information Systems Auditor) from ISACA or shall have empanelment with the Standardization Testing and Quality Certification Directorate under the Ministry of Electronics & Information Technology...”

(7) Power Exchange shall formulate and implement a cyber security and cyber resilience framework to manage risk to systems, networks and databases from cyber-attacks and threats with the approval of the Board and submit it to the Commission for information. Security audit of the IT systems shall be carried out each year from a CERT-In (Indian Computer Emergency Response Team) empanelled organisation...”

3.4.16. Congestion Amount management

3.4.16.1. Power Market Regulations, 2010 provide that the congestion amount maintained in a separate account by the Power Exchange shall be transferred on the next working day to a regulatory fund as may be directed by the Commission, and the manner of utilisation of the congestion amount fund is also specified.

3.4.16.2. The Draft Regulations provide for an enabling provision for the Commission to decide on the utilisation of congestion amount in a manner as may be decided in order to address the future needs of market design.

3.4.16.3. Accordingly, Regulation 30 of the Draft Regulations has been proposed as below:

“(1) The Power Exchange may be vested with congestion amount arising from the difference in market prices of different regions as a consequence of market splitting.

(2) The congestion amount shall be maintained in a separate account by the Power Exchange which shall be transferred to the Power System Development Fund in the manner as specified in the Central Electricity Regulatory Commission (Power System Development Fund) Regulations, 2019, as amended from time to time and any re-enactment thereof, or utilised in any manner as may be decided by the Commission.”

3.4.17. Information Dissemination by Power Exchange

- 3.4.17.1. The Draft Regulations propose that the Power Exchanges shall publish, on their website, data tables with the details of all buy bids and all sell bids time block wise, along with the curve for aggregate demand and supply during that period, for the benefit of all market participants.
- 3.4.17.2. The Draft Regulations also provide formats in which the Power Exchanges shall submit details of all transactions to the Commission on a monthly basis. These formats have been appended to the Draft Regulations.
- 3.4.17.3. Further, in the interest of transparency and public disclosure for the benefit of market participants, the Draft Regulations also provide that Power Exchanges create and maintain a document which provides a detailed description of the algorithm used by the Power Exchange for price discovery for all type of contracts. The document shall provide details on all type of bids existing on the platform, along with a description of the way the algorithm results in maximisation of economic surplus taking into account all bid types for a particular contract and information on congestion in the transmission of electricity. The Power Exchanges shall display this information on their website and promptly update subsequent changes to the algorithm, as and when effected.
- 3.4.17.4. Accordingly, Regulation 31 of the Draft Regulations incorporate the following clauses:

“...(4) The Power Exchange shall publish on its website, data tables with aggregate demand and supply curves for each type of contract.

(5) The Power Exchange shall provide to the Commission details of all transactions on a monthly basis in the formats (Forms I-XIV) appended to these regulations:

Provided that the Commission may, by order, modify or introduce formats from time to time.

...

(8) Power Exchange shall create and maintain a document on its website providing detailed 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.”

3.4.18. Market Surveillance by Power Exchange

3.4.18.1. As part of the quarterly surveillance reports submitted by the Market Surveillance Committee of the Power Exchange to the Commission, Regulation 32 of the Draft Regulations proposes the following:

“(5) The Market Surveillance Committee shall submit quarterly surveillance report to the Commission within 15 days after the end of every quarter and shall include the following but not limited to:

- (a) Transaction pattern of members of Power Exchange over a specific time period;*
- (b) Daily, weekly, monthly volatility analysis of prices;*
- (c) Price setter analysis of buyer and seller;*
- (d) Dominant position by Market Participants;*
- (e) Monitoring of Circular Trading;*

- (f) *Analysis of sudden high transaction volumes of members of Power Exchange;*
- (g) *Analysis of default by any member of Power Exchange;*
- (h) *Analysis of transactions to check that the market splitting as approved by the Commission is being followed in case of congestion in transmission corridor;*
- (i) *Analysis of market concentration in daily transactions; and*
- (j) *Analysis of marginal buyers and sellers, whose volume was cleared at the margin.”*

3.4.18.2. The Draft Regulations propose to cover analysis of market concentration on daily transactions on the Power Exchange and the analysis of marginal buyers and sellers, in order to allow the stakeholders to understand the concentration and the behaviour of marginal buyers and sellers in the power market.

3.4.19. Revocation of registration of Power Exchange

3.4.19.1. Power Market Regulations, 2010 provide that the Commission may withdraw or cancel the registration accorded to the Power Exchange in case of occurrence of any event such as violation of terms and conditions of the regulations or terms of registration, non-maintenance of net worth as stipulated under the regulations, or non-compliance with any directions of the Commission.

3.4.19.2. The Draft Regulations propose to broaden the scope of events under which the registration granted to Power Exchange can be revoked in order to ensure comprehensive coverage. In addition to the list of events stated above, the registration of a Power Exchange can be revoked in case the Power Exchange indulges in market manipulation or insider trading, or if the shareholding of the Power Exchange is in violation of the stipulated terms and conditions.

3.4.19.3. Additionally, the Draft Regulations also cover an event where a voluntary application is filed by a Power Exchange for revocation of its registration in order to accord flexibility to Power Exchanges to wind up operations, if they so desire.

3.4.19.4. Accordingly, Regulation 35 of the Draft Regulations proposes the following:

“(1) The Commission may, for reasons to be recorded in writing and after giving the Power Exchange an opportunity of being heard, revoke the registration granted to the Power Exchange in any of the following events:

(a) If the functioning of the Power Exchange is in violation of any terms and conditions of these regulations or terms of registration;

(b) If the shareholding of the Power Exchange is in violation of the terms and conditions of these regulations;

(c) If the Power Exchange indulges in market manipulation or insider trading;

(d) In case the Net worth of the Power Exchange reduces at any time below the specified amount as provided in Regulation 14 of these regulations;

(e) In case the Power Exchange fails to comply with any direction of the Commission;

(f) In case the Power Exchanges makes an application for revocation of registration...”

3.4.20. Grievance Redressal of Members and Clients

3.4.20.1. Power Market Regulations, 2010 provide that the Power Exchanges shall disclose on their website the details of complaints lodged by members against Power Exchange and by clients against its members, as well as the conflict resolution mechanism followed and the result of grievance resolution.

3.4.20.2. In order to strengthen the existing grievance redressal mechanism of Power Exchanges, the Draft Regulations propose the constitution of a Grievance Redressal Forum which shall be headed by an Independent Director from the Board of the Power Exchange. Additionally, a provision has been inserted to enable the Commission to call for details regarding any specific grievance as the Commission may require. Accordingly, Regulation 36 of the Draft Regulations proposes the following:

“(1) The Power Exchange shall constitute a Grievance Redressal Forum, headed by an Independent Director.

(2) Power Exchanges shall disclose, on their website, the details of complaints lodged by members against Power Exchange and by clients against its members and status of resolution of the grievance.

(3) Power Exchanges shall also disclose, on their website, the conflict resolution mechanism followed and the result of grievance resolution.

(4) The Commission may call for information on redressal of any specific grievance by the Power Exchange.”

3.5. Market Coupling

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. In order to address the issues highlighted in 3.5.1 and 3.5.2 above, the Draft Regulations provide an enabling provision to introduce market coupling among the Power Exchanges, with the objective of discovering uniform clearing prices in the Day Ahead and Real-time markets, ensuring optimal utilisation of resources and maximisation of economic surplus. 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.

3.5.4. Market coupling has been defined under sub-clause (af) of clause (1) of Regulation 2 of the Draft Regulations as follows:

“Market Coupling” means the process whereby collected bids from all the Power Exchanges are matched, after 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.”

3.5.5. Market Coupling Operator designated by the Commission shall collect and match bids from all the Power Exchanges, after 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.

3.5.6. Market coupling has been envisaged as an enabling provision in the Draft Regulations, to be introduced in the Day Ahead market or Real-time market or any other market as may be notified by the Commission.

3.6. OTC Platform

3.6.1. The OTC Market consists of transactions that take place outside the Power Exchange between generators and consumers directly or through market intermediaries. The Commission had provided for an OTC Market in the Power Market Regulations, 2010 where the buyers and sellers can interact directly or through traders and decide price and terms of contracts either through mutual agreement or through competitive bidding. At present, market intermediaries namely trading licensees are in place to facilitate transactions in electricity in the OTC Market. However, there is no platform for facilitating direct interaction between the buyers and sellers in the OTC Market.

3.6.2. Following factors necessitate the requirement for an electronic platform which facilitates direct interaction between buyers and sellers in the OTC Market:

- (a) growing demand for electricity in the near term;
- (b) growing requirement for purchase of renewable power to meet Renewable Purchase Obligation by the obligated entities; and
- (c) increasing purchase of electricity by the large consumers through open access.

3.6.3. Vide order dated 14.06.2018², the Ministry of Power after consultation with the Ministry of New and Renewable Energy notified the long term growth trajectory of Renewable Purchase Obligations for Solar and Non-Solar for the years 2019-20 to

² Ministry of Power Order No. 23/03/2016-R&R dated 14th June 2018

2021-22 as shown in the table below. The figures below indicate growing Renewable Purchase Obligations for the obligated entities in the coming years (excluding consumption met from hydro sources of power).

Long term RPO trajectory	2019-20	2020-21	2021-22
Non-Solar	10.25%	10.25%	10.50%
Solar	7.25%	8.75%	10.50%
Total	17.50%	19.00%	21.00%

3.6.4. There has also been a significant growth in the number of consumers and of demand for electricity over the past years. Further, with the Government’s focus on reduction in cross subsidies and time bound grant of open access (as per Part-4 of the Government of India’s Atmanirbhar Bharat Abhiyaan launched on 16.05.2020), the number of open access consumers and their demand is expected to proliferate in the coming period.

3.6.5. In this context, the Draft Regulations propose to introduce Over the Counter (OTC) Platform as an electronic platform for providing relevant information about potential buyers and sellers of electricity in the OTC Market.

3.6.6. OTC Platform has been defined under sub-clause (ap) of clause (1) of Regulation 2 of the Draft Regulations as follows:

“Over the Counter (OTC) Platform” is an electronic platform for exchange of information amongst the buyers and sellers of electricity;

3.6.7. It is envisaged that the OTC Platform will provide detailed information on buyers and sellers of electricity at one place. The participants can access information viz. quantity, price, fuel, location etc., through the OTC Platform.

3.6.8. In order to avoid potential conflict of interest in owning or operating an OTC Platform, the Draft Regulations propose that a Power Exchange or Trading Licensee or any of its Associates or grid connected entities shall not be permitted to set up, operate, or have any shareholding in an OTC Platform.

3.7. Market Oversight

3.7.1. Power Market Regulations, 2010 provide for market oversight by the Commission, circumstances requiring intervention by the Commission in the market and

investigation of matters (if required). However, there have been several developments in the power market in the past decade. The volume of electricity transacted on the Power Exchanges has grown manifold, and there is expectation of continued strong growth in the future as well, led by a renewed focus on short-term markets. Further, with the introduction of Real-time market on Power Exchanges, there exist two markets for collective transactions at the Power Exchanges viz. Day Ahead market and Real-time market. Along with this, the Commission has proposed the introduction of longer duration Term Ahead Contracts in the Draft Regulations, which will allow buyers and sellers to transact electricity for a duration of more than 11 days ahead, subject to specific conditions. As far as the OTC Market is concerned, in addition to trading licensees as market intermediaries, the Draft Regulations propose the introduction of OTC Platform as an electronic platform for facilitating information exchange amongst buyers and sellers of electricity in the OTC Market. On an overall basis, it is expected that there would be an increase in the number of participants in the market in the future (such as distribution licensees and generating companies, especially led by growth in RE generators).

- 3.7.2. In the above context of various reforms and growth in the size and depth of the market and the products offered, the role of market oversight by the Commission becomes critical for protecting the interest of the participants in the power market, and ultimately securing safe, sustainable, competitive and affordable power for the consumers.
- 3.7.3. The process of market oversight by the Commission is envisaged as a framework which consists of three major functions as specified below:



2

Investigation

Function	Covered under
Inquiry or investigation in accordance with the provisions of the Act if any of the following circumstances exist:	
(a) Non-compliance of the statutory obligations by market participants	Clause (2) of Regulation 50
(b) Involvement in activities such as market manipulation, insider trading, any form of cartelization, abuse of dominant position	
Commission may take any action as specified in the regulation based on report or information submitted as part of investigation	Regulation 51
In a situation of abnormal increase or decrease in the price of volume of electricity in the Power Exchange, the Commission may intervene and take actions as specified in the regulation	Regulation 52

3

Inspection

Function	Covered under
Commission may at any time undertake inspection, conduct inquiries or audit of any Power Exchange, either through its officers or through a third-party agency, in accordance with the provisions of the Act	Regulation 54

- 3.7.4. Accordingly, the Draft Regulations propose to strengthen market oversight by the Commission and provide a structured approach to capture and analyse data relating to all market participants. The details regarding the procedure for registration, details of market participants and information to be submitted by them as well as periodicity of submission will be provided separately.
- 3.7.5. The Commission upon being satisfied that any of the circumstances specified in clause (2) of Regulation 50 of the Draft Regulations exist, whether relating to non-compliance of the statutory obligation by any market participant or relating to involvement in any of the activities as stated above, call upon inquiry or investigation

in accordance with the provisions of the Act. Based on the information or report submitted as part of the investigation, the Commission may issue directions to the concerned market participant as specified in Regulation 51 of the Draft Regulations.

3.7.6. Market manipulation has been defined under sub-clause (ah) of clause (1) of Regulation 2 of the Draft Regulations as follows:

“Market Manipulation” means:

- (i) *entering into any transaction by any Market Participant, which:*
 - (1) *gives, or is likely to give, false or misleading signals as to the supply of, demand for, or price of any of the contracts on the Power Exchange;*
 - (2) *secures or attempts to secure, by any member of the Power Exchange or client, relatively higher sale price while curtailing supply to other beneficiaries entitled to receive the same power;*
- (ii) *disseminating any information through the media which gives, or is likely to give, false or misleading signals as to the supply of, demand for, or price of any of the contracts on the Power Exchange;*

3.7.7. The terms ‘insider’, ‘unpublished price sensitive information’ and ‘insider trading’ have been defined under sub-clauses (z), (bf) and (aa) respectively of clause (1) of Regulation 2 of the Draft Regulations, as follows:

"Insider" means a person:

- (i) *who is or has been, during the six months prior to the concerned event, associated with the Power Exchange, directly or indirectly, in any capacity including by reason of frequent communication with its officers or by being in any contractual, fiduciary or employment relationship or by being a Director, officer or an employee of the Power Exchange or by holding any position including a professional or business relationship with the Power Exchange whether temporary or permanent, that allows such person, directly or indirectly, access to unpublished price sensitive information about transactions on a Power Exchange;*

(ii) *who is in possession of or has access to unpublished price sensitive information about transactions on a Power Exchange;*

(iii) *who has acquired unpublished price sensitive information through criminal activity.*

"unpublished price sensitive information" means any information, relating to contracts transacted on the Power Exchange, that is not generally available which upon becoming generally available, is likely to materially affect the price of the contract and shall ordinarily include, but not restricted to, information relating to the following contracts:

(i) *Day Ahead Contract;*

(ii) *Real-time Contract;*

(iii) *Intraday Contract;*

(iv) *Contingency Contract;*

(v) *Term Ahead Contract.*

"Insider Trading" by an Insider means:

(i) *communicating, providing, or allowing access to any unpublished price sensitive information, to any person including other Insiders except where such communication is in furtherance of legitimate purposes, performance of duties or discharge of legal obligations;*

(ii) *recommending any person, on basis of unpublished price sensitive information, to acquire or dispose of any contract on the Power Exchange, to which that information relates.*

3.7.8. Examples of situations which may indicate existence of potential insider trading include significant trading on Power Exchange by a member before the announcement of the information which has a material effect on price of a particular contract; or transactions on the Power Exchange which result in sudden and unusual changes in the volume of bids and prices before the announcement of information which has a material effect on price of a particular contract.

3.7.9. The term ‘cartelization’ has been defined under sub-clause (i) of clause (1) of Regulation 2 of the Draft Regulations as follows:

“Cartelization” means an act by Market Participants who, by agreement amongst themselves, limit or control or attempt to limit or control generation, distribution, sale, price or trade of electricity;

3.7.10. Regulation 54 of the Draft Regulations provide the Commission with the power to inspect, conduct inquiry or audit of any Power Exchange, either through its officers or through a third-party agency in accordance with the provisions of the Act. It is also stipulated that if an inspection, inquiry or audit is undertaken in accordance with this Regulation, such Power Exchange and every Director, Manager, officer and any other employee of such Power Exchange shall cooperate in this regard.

4. Repeal and Savings

4.1. The Draft Regulations propose to repeal the existing Central Electricity Regulatory Commission (Power Market) Regulations, 2010. In order to provide continuity, the Draft Regulations provide that any order or direction issued or approval granted, or any appointment made in pursuance of Central Electricity Regulatory Commission (Power Market) Regulations, 2010, if in force at the commencement of these regulations, shall continue to be in force, and shall have effect as if made, directed or issued under or in pursuance of these regulations.