

# Central Electricity Regulatory Commission



**Final Terms of Reference (TOR)  
For  
Review of Power Exchanges**

9 January 2015

**Central Electricity Regulatory Commission  
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**Important Dates:**

<b>Final Terms of Reference hosted on website of CERC</b>	<b>9 January 2015</b>
<b>Last -date and time for submission of bid</b>	<b>30 January 2015 by 5.00 P.M</b>
<b>Date and time of opening of Technical Bids</b>	<b>2 February at 4.00 P.M</b>

**Important Information**

<b>Earnest Money Deposit</b>	<b>Rs 1,00,000/- (Rupees One lakh only)</b>
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## **Review of Power Exchanges**

### **Terms of Reference (TOR)**

#### **1. Preamble**

1.1 The Central Electricity Regulatory Commission issued the Central Electricity Regulatory Commission (Power Market) Regulations, 2010 vide notification No. L-1/13/2010-CERC dated 20<sup>th</sup> January, 2010. The Commission through notification of these Market Regulations created a well-founded regulatory framework for power exchanges and ensured that power exchanges are subjected to appropriate and effective regulation, supervision, and oversight. Power Market Regulations clearly define and disclose the regulatory, supervisory and oversight policies with respect to power exchanges. At present, two power exchanges viz., 1) Indian Energy Exchange Limited (IEX), New Delhi and 2) Power Exchange India Limited (PXIL), Mumbai are in operation in the country from 27<sup>th</sup> June, 2008 and 22<sup>nd</sup> October, 2008 respectively. The regulation cited above prescribes, *inter alia*, the objectives of the power exchanges.

- “(i) Ensure fair, neutral, efficient and robust price discovery;
- (ii) provide extensive and quick price dissemination;
- (iii) Design standardized contracts and work towards increasing liquidity in such contracts”.

These power exchanges are functioning under Bye-laws, Rules and Business Rules framed and approved by the Commission.

1.2 The Power Exchanges have been in operation for 6 years now. The Power exchange business has grown significantly over the years with its market share over 3 % of the total power generated. The participation on the exchanges has also increased significantly. Several products have been introduced by power exchanges including day ahead market, term ahead market, Renewable Energy Certificate market.

## **2. Regulatory Framework**

2.1 The objectives of the Power Market Regulations are to help creation of comprehensive market structure by defining the market institution, the market players, types of products and contracts in the market. It stipulates the prudential norms for establishment of power exchanges, the shareholding structure, demutualisation, governance structure, principles of risk management, the regulatory compliances, market oversight and surveillance.

2.2 According to the CERC (Power Market) Regulations, 2010, Power exchanges have to make a Settlement Guarantee Fund (SGF) and invest its proceeds in accordance with the Regulations. The Power Exchange shall adopt best practices while formulating prudent and dynamic risk management processes based on the changing risk profiles of the market. Risk Management Committee (RMC) shall review the risk management framework and processes of the power exchange on a six monthly basis. Report of the RMC is also to be submitted to the Board of Directors of the power exchanges concerned and CERC (Regulation 33 refers). Power Exchanges have also constituted a Market Surveillance Committee headed by an independent Director of the board. The Committee shall submit quarterly surveillance report to the Commission. The Power Exchange shall also carry out periodic IT system audit for data security, data integrity and operational efficiency and submit its report to the Commission annually. However, this has not been done since 2011.

2.3 Regulation 55(ii) of the CERC (Power Market) Regulations, 2010 provides that the Commission may direct any person specified in the order to investigate the affairs of any Electricity Trader or Exchange or Member of Exchange including his books of accounts, and to report to the Commission on any review/investigation made by such Investigating Authority. After considering review/investigation report as referred in Regulation 55, the commission may issue such directions, as it considers appropriate to maintain market oversight and surveillance and to check market integrity.

### **3. Need for Such Review**

3.1 A power exchange deals with financial transactions, monies of participants and undertakes various other functions as detailed under Regulation 24. It should remain robust and safe at all times and maintain confidence of market participants in the institution. Power exchanges have nationwide operations, have over 3000 participants, handle large financial transactions, interact with multiple stakeholders like banks, generators, discoms etc. CERC intends to undertake review of the overall regulatory compliance to these Regulations, the robustness of operational processes, the control and checks placed by the power exchanges to ensure business continuity, safeguarding the public interest and absence of any untoward systemic risk.

### **4. Objective of the review**

4.1 To conduct an overall health check on the functioning of two power exchanges covering compliance to key regulations governing the functioning of power exchanges, robustness of the operational processes, risk management measures in place to ensure business continuity and safeguarding of interest of various stakeholders to mitigate any systemic risk emerging from the functioning of the two power exchanges.

### **5. Scope of work**

5.1 This will include detailed examination of the records of the power exchanges (one at Delhi and other at Mumbai) with a view to assess the following:

- a) Business Processes of the power exchanges to ascertain whether these are in compliance with the applicable Act, regulations framed thereupon by the Commission, orders, rules, bye-laws, business rules related to Power Exchange and Power Market Regulations ;
- b) Operations of the matching engines used by the Power Exchange for various market segments. Analysis of the data from Power Exchange to

verify the efficacy of the bid & offer matching process and compliance with regulations. The matching engine of the Power Exchange is required to be tested for compliance with Business Rules and CERC(Power Market) Regulations, 2010 using test data. This audit would, however, not cover Algorithm audit.

- c) IT system audit for data security, data integrity and operational efficiency.
- d) The existence of control mechanism and appropriate checks and balances in the overall governance of the power exchange;
- e) Risk Management practices with reference to its Risk Policy framework as outlined in the bye-laws, Rules and Business Rules under the overall guidance of the CERC Regulations and orders issued by it from time to time;
- f) Clearing and Settlement process and all monetary transactions with a view to ensure that there are adequate safeguards against any default in payment and also adherence to pay in – payout timelines in transactions;
- g) Monetary flow between Power Exchange, its Member & their clients, the control mechanism in this process, Compliance to documentation for member and client registration, Regulatory compliance by Members to rules / bye laws of Power exchange etc.
- h) Processes in place to maintain Bid data confidentiality and market surveillance.
- i) Operations and investment of Settlement Guarantee Fund and the valuation methodology thereof;
- j) Related party transactions since inception of power exchange and the compliance as per the Companies Act, as amended from time to time;
- k) Nature of relationship between promoter and the power exchange;
  - Whether Promoter directors have any signing authority in the functioning of the exchange;
  - Degree of control exercised by the promoter(S)

- l) Nature of Commercial relationship between present Trading system technology provider with the power exchange;
- m) Existence and efficacy of Internal Audit and Internal Control System;
- n) Agenda and minutes of the board of directors, audit reports by the statutory auditors, internal auditor, Information Technology Auditor, if any, and various committees constituted by the power exchanges.
- o) The period of the review will be FY 2012- 14 (except related party transactions which would be examined since inception of power exchange).
- p) The Bidders shall be required to submit separate and independent bids for the two Power Exchanges. CERC reserves the right to award the assignments to separate bidders, depending on the outcome of the evaluation process.**

## **6. Qualification Criteria:**

The Regulations provide for appointment of a person to investigate. In line with the definition of "Person" provided under Income Tax Act, 1961, it covers a firm/company as well as a company also. Accordingly, looking into the nature of assignment, it is felt that the Consulting Firm/company should have the following:

### **6.1 At firm/company level:**

- i) Minimum turnover of INR 10 crore (Rupees Ten crore) in the immediate preceding financial year i.e. 2013-14
- ii) Minimum 10 partners/ personnel who are qualified chartered accountants/cost accountants out of which at least two partners/ personnel are CISA/DISA qualified;
- iii) Personnel on rolls of the firm/company or on consultancy basis having experience in operations of Exchanges.
- iv) Experience of auditing scheduled commercial banks as statutory auditors in IT environment i.e ERP systems.

- v) Experience of auditing stock exchange, commodity exchange, power exchanges, power trading companies with IT environment and having ERP.
- vi) Experience in business process risk assessment.
- vii) In case the bidder firm/company had been associated in any accounting or auditing of these two power exchanges during last five years, such a firm/company would be treated as ineligible to be appointed as consulting firm/company for **review/audit of the particular exchange where accounting or auditing was done by the firm/company.**

## **6.2 Key Personnel**

- i) **Team Leader:** Should be a qualified Chartered Accountant or Cost Accountant or MBA/Post Graduate Diploma (Finance) or PhD in Economics with minimum overall work experience of 12 years across Statutory Audit/Internal Audit/Information System Audit. Weightage will be given to relevant experience like statutory/ internal audit of exchanges, power trading companies, experience of working with the regulators.
- ii) **Deputy Team Leader:** Should be a qualified Chartered Accountant or Cost Accountant or MBA/Post Graduate Diploma (Finance) or a PhD in Economics with minimum overall work experience of 12 years in power sector operations with relevant experience in operations of power markets. Weightage will be given to relevant experience like internal audit/ review/ in exchanges, power trading companies, other trading companies, experience of working with the regulators and power sector experience.
- iii) Weightage will be given to firm/company whose Team Leader or Deputy Team Leader is CISA/DISA qualified.
- iv) Key personnel of the consulting firm/company engaged in the assignment would not leave the assignment except in case of



compelling circumstances beyond their control and under intimation to CERC The personnel leaving the assignment has to be replaced by personnel with equal or higher qualification and experience criteria.

- v) No person in the team should have worked in accounting/ statutory audit, internal audit or any such other assignment from any of these two power exchanges or their related parties during last five years.

## **7. Deliverables and Duration of Assignments**

7.1 CERC intends to have the review for both the exchanges conducted concurrently and be completed after preparation of detailed plan of action within a period of 90 days from the date of commencement of assignment for each exchange. The period of each review will include issue of observations and receipt of comments and preparation of review report with analysis and recommendations.

7.2 The Consulting Firm/company will be required to deliver the following:

- a) **Kick off Meeting report /Inception Report** : Submit an inception report detailing the overall approach to the review, tentative review schedule and make a presentation of the same to CERC within seven days of issue of LOI;
- b) **Mid Term review Report:** Submit a midterm analysis indicating the progress of the assignment after 45 days from the date of presentation of inception report and carry out any other instruction(s) given by CERC within the scope of the assignment.
- c) **Presentation To CERC** : Make a presentation to CERC on its final findings of the review of both the exchanges, not more than fifteen days before submission of Final Report;

- d) **Final Report** : Submit Final Review Report of both exchanges at the end of the 90 days from the date of issue of LOI;
- e) **Time is the essence of the contract. Hence, no delay in the matter would be acceptable. In case of delay, the penalty for each day of delay would be 1% of the total contract fees subject to maximum value of 10% of the total contract fees. In case of abnormal delay beyond twenty days, CERC reserves its rights to terminate the contract. In the event of such termination, CERC reserves its right to get work done through another company at the risk and cost of the firm which has been awarded the contract.**

**8. Payment Schedule:**

- i. 10% on award of LOI on submission of bank guarantee of the equal amount valid till the conclusion of the contract.
- ii. 20% on submission of Mid Term review report
- iii. 40% on submission of the final report after incorporating additional points if any suggested by CERC and after incorporating the views of the power exchanges; and
- iv. 30% on acceptance of the final report by CERC.

The TDS shall be deducted as per the provisions of the Income Tax as amended from time to time and TDS certificate shall be provided to the consulting firm/company. In normal circumstances, the payment shall be made within 10 days of receipt of invoice from the consultant.

**9. Earnest Money Deposit**

Earnest Money Deposit of Rs.1,00,000 (Rupees one lakh) in the form of Demand Draft/Bankers Cheque drawn in favour of Central Electricity Regulatory Commission payable at New Delhi would be attached with the Technical Bid. EMD of the unsuccessful bidders would be returned within

10 days of finalization of the contract. EMD of the successful bidder(s) would be treated as security deposit and would be released on completion of assignment. The successful bidder(s) may choose to furnish this security deposit by way of Bank Guarantee from a Nationalised Bank.

**10. Validity of Offers**

The offers shall be valid for a period of 60 days from the last date of submission of the financial bid.

**11. Termination of contracts:**

The assignment may be terminated as per clause 7 of the Contract Agreement enclosed at **Annexure-III**.

**12. Application and Evaluation:**

- 12.1. The format of application is at **Annexure-I** and **Annexure-II**.
- 12.2. The Consulting Firm/company is required to submit three (3) copies of bids for Technical offer (each of which will be treated as original) and one copy of Financial offer, duly sealed in separate envelopes separately for each exchange.
- 12.3. The bidders who qualify in the Clause 6 of eligibility criteria will only be called for presentation to CERC.**
- 12.4. The bids will be evaluated on a total score of 100 comprising Technical component of 80 marks and Financial component of 20 marks.
- 12.5. The bids of the eligible bidders as per Clause 6 will be scrutinized by Consultant Evaluation Committee (CEC) and the decision of the CEC would be final and binding in this matter. The technical performance will be evaluated based on the following criteria:

S. No.	Technical Parameters	Score
1.	The Consulting Firm/company's	25

S. No.	Technical Parameters	Score
	relevant experience for the assignment	
2.	The qualification and experience of the key staff proposed Team Leader : 20* Deputy Team Leader: 15*	35
3.	Approach and Methodology of undertaking the Review	20
	<b>Total Technical Score</b>	<b>80</b>

\* - Includes weightage of 5 marks on account of relevant experience as explained in Para 6.2

- 12.6. The minimum qualifying marks will be 60 of the score for technical component.
- 12.7. Only those bidders, who qualify as per Clause 12.6 would only be considered for Financial Evaluation.
- 12.8. The bidders shall quote the price inclusive of all expenditures (such as manpower, travel etc.) and all applicable taxes.
- 12.9. Weight for Financial parameters: Proposal with the lowest cost will be given a financial score of 20 and other proposals will be given financial scores that are inversely proportional to their quotation.
- 12.10. The total score will be arrived at by summing up the Technical and Financial scores.
- 12.11. Only the successful bidder(s) would be communicated of the award of review assignment.
- 12.12. The right to reject any or all bids rests with the CERC without assigning any reason.
- 12.13. CERC and the Consulting Firm/company both would have option to terminate the contract by giving a notice of one month or the equivalent remuneration in lieu thereof. In such cases, the Consulting Firm/company shall be paid fees after taking into consideration the part of work completed prior to such

foreclosure, termination or cancellation of the engagement as may be decided by CERC, and the decision of the CERC shall be conclusive and binding. CERC shall consider the effort spent till the date of foreclosure/ termination/ cancellation based on details submitted by the Consulting firm/company. The fees so fixed and paid shall be deemed to be final payment in such cases.

12.14. The Consulting Firm/company shall abide by the contract as per Annexure-III.

12.15. The review will have to be undertaken at the physical location of the two power exchanges. The address of the two exchanges are as follows :

a) Indian Energy Exchange Ltd.

100A/1 Ground Floor, Capital Court

Ol of Palme Marg, Munirka

New Delhi-110067

Tel: +91-11-4300 4000

Fax: +91-11-4300 4015

b) Power Exchange of Indian Ltd

5th Floor, Tower 3,

Equinox Business Park, (Peninsula Techno Park),

Off Bandra Kurla Complex, Kurla (West), LBS Marg,

Mumbai 400 070, India.

Tel: + 91 22 26530500, Fax: + 91 22 26598512

### 13. Important dates for Bid Process:

<b>Sl. No.</b>	<b>Important Dates</b>	<b>Date</b>
1.	Finalized TOR hosted on CERC website	Day 0
2.	Last Date for Bid Submission	Day 21
3.	Date for Technical Bid Opening	Day 22
4.	Bid Evaluation results displayed on CERC website	Day 32
5.	Presentation by Pre Qualified bidders to CERC	Day 37
6.	Results of Technical Evaluation displayed on CERC Website	Day 37
7.	Financial Bid Opening	Day 37
8.	Selection and Issue of Letter of Intent (LOI)	Day 42
9.	Signing of contract between the CERC and the selected bidder(s)	Day 47

For the purposes of calculation of dates, public holidays and any other holiday would not be considered. For example if the finalized TOR is hosted on the CERC website on 01.01.2015, then the last date for bid submission would be 22.01.2015, date for technical bid opening would be 23.01.2015 and so on.

**DETAILED PROPOSAL FOR Review of Power Exchanges  
(TECHNICAL)**

**Note: Two (2) copies** of the proposal shall be submitted to **Assistant Secretary, Central Electricity Regulatory Commission.**

**I. GENERAL INFORMATION:**

01. Title of the Proposed Assignment :
02. Name and address of the Consulting Firm/company :  
(Organization/Institution)
03. Name, qualification and experience of the Key Person :
04. Contact address of the Key Person :
  - 4.1 Address :
  - 4.2 e-mail :
  - 4.2 Telephone :
  - 4.3 Fax :
  - 4.4 Mobile No. :
05. Net-worth/Turnover of the Organization/ Institution :  
***(To be supported by Annual Statement of Accounts of Last three Financial Years)***
06. Details of Office in New Delhi/Mumbai and other places and the available infrastructures

**II. TECHNICAL SPECIFICATIONS:**

- 07. Brief review of the experience in the relevant field (National and/or International) (if any)\*\*.
- 08. Detailed Approach & Methodology for undertaking the assignment.
- 09. Facilities available for the proposed work in the applicant’s organization/institution.
- 10. Name and Designation of the Proposed Team
- 11. Biographical sketch of the Team (for every team member)

- (i) Name:
- (ii) Designation:
- (iii) Date of Birth:
- (iv) Education and Experience\*\*:
  - (a) Academic Qualifications

Degree	University	Field(s)/Specialisation	Year

- (b) Experience:

(1) Total Relevant Experience for the proposed assignment: ..... years.

(2) Detailed Experience:

Institution	Topic of work done	Period

- (v) Field of major interest
- (vi) Additional information (if any)

**\*\* Documentary proofs have to be submitted along with the bid.**



**DETAILED PROPOSAL FOR ASSIGNMENT  
(FINANCIAL)**

**I. GENERAL INFORMATION:**

01. Title of the Proposed Assignment :
02. Name and address of the Consulting Firm/company :  
(Individual/Organization/Institution)
03. Name & Designation of the Key Person :
04. Contact address of the Key Person :  
(e-mail/fax/telephone)

**II. Fee Proposed:**

S. No.	Particulars	Amount of fee in Rupees (Inclusive of taxes, if any)	
		IEX	PXIL
1	Fee		
2.	TA, DA and out of pocket expenses etc for outstation journey		
	<b>Total</b>		

***Working sheet of the fee and other expenditure may be requisitioned from the selected bidder for future reference, if any.***

**Signature of the Principal Investigator/  
Head of the Consulting Firm/company Team  
(Authorised Signatory)**

On Rs 50/- Stamp Paper

AGREEMENT

This agreement made on this day of ..... at New Delhi BETWEEN ----  
-----hereinafter referred to as **“the Consulting Firm/company”** of one part  
and the **Central Electricity Regulatory Commission** (herein after called  
**"CERC"**) of the other part.

WHEREAS

- (A) CERC, on being satisfied that there is a need to appoint the Consulting Firm/company ".
- (B) The Consulting Firm/company submitted his quotations vide his letter no.....dated.....
- (C) CERC, on scrutiny of the response received from the Consulting Firm/company has decided to engage the Consulting Firm/company for the above said assignment under the provisions of the Central Electricity Regulatory Commission (Appointment of Consultants) Regulations, 2008
- (D) The Consulting Firm/company has agreed, to take up the above said assignment

NOW THIS AGREEMENT WITNESSETH AS UNDER:

That the Parties to this Agreement have agreed to terms and conditions mentioned below:

**1. Definitions:**

- (i) “Confidential information” mean any and all information communicated/collected/accessed to by the Consulting Firm/company by CERC/ Power exchanges.
- (ii) “Secretary” means the Secretary of the Commission.

2. **Nature of work:** The Consulting Firm/company shall be engaged to in accordance with the Terms of Reference attached hereto and which shall be deemed to be a part of this agreement for all intents and purposes.

3. **Commencement and duration of assignment:** The above assignment shall commence with effect from the date of issue of Letter of Intent.

**4. Obligations of the Consulting Firm/company:**

- (i) The Consulting Firm/company shall adhere to the time-frame specified in the Terms of Reference and submit the deliverables to the Secretary.
- (ii) The Consulting Firm/company shall make the presentations before the CERC as required by the CERC.
- (iii) The Consulting Firm/company shall ensure that the interim and final findings of the study and the contents of the interim and final reports to the CERC are not disclosed to any person unless expressly authorized so by CERC.

**5. Entitlements of the Consulting Firm/company:**

- (i) The Consulting Firm/company shall be entitled to Rs.....(in words.....) (all inclusive).
- (ii) The Consulting Firm/company shall be paid as per clause-8 of Terms of Reference.

**6. Restrictive terms:**

- (i) The Consulting Firm/company further affirms and confirms that the current assignment is not and shall not be, in conflict with any of its present obligations to any party with whom it has association.
- (ii) The Consulting Firm/company further affirms and confirms that it shall hold all Confidential Information in confidence and with the same degree of care it uses to keep its own similar information confidential, but in no event shall it use less than a reasonable degree of care; and shall not, without the prior written consent of CERC, disclose such information to any person for any reason at any time except when such information is required under law, for which no prior consent of CERC is required;
- (iii) CERC shall be entitled to, without prejudice to any other right for civil or criminal proceedings, receive from the Consulting Firm/company a compensation for the damages for violation by it of any of the terms of the agreement which shall be limited to the total fee of the assignment.

**7. Termination of contract:**

At the option of the CERC:

- (i) Without any notice: The assignment may be terminated by CERC, any time, with immediate effect, under any of the

following circumstances:

- (a) It has come to notice that the Consulting Firm/company has been convicted for an offence involving moral turpitude or unethical professional practices.
- (ii) With 15 days notice: The assignment may be terminated by CERC, under any of the following circumstance, by giving 15 days notice and after providing an opportunity to the Consulting Firm/company to offer explanation:
  - (a) It has come to the notice of CERC that the Consulting Firm/company has resorted to fraud or suppression of material information or submission of false information or unethical means to secure the assignment.
  - (b) It has come to the notice of the Commission that there is a material change in the circumstances of the Consulting Firm/company based on which the assignment was awarded to the Consulting Firm/company.
  - (c) The Consulting Firm/company has failed, without any valid justification, to adhere to the time-frame specified by CERC in the assignment.
  - (d) The Consulting Firm/company has violated any of the provisions of the agreement.

At the option of either parties

- (iii) Both the parties namely, CERC and the Consulting Firm/company have the option to terminate the assignment by giving a notice of two weeks or the equivalent remuneration in lieu thereof.

**8. Effect of termination:** On pre-mature termination of the assignment, CERC shall pay the Consulting Firm/company, the

remuneration for the work performed/ effort spent by it till the date of termination of the Contract.

Provided that in case of any dispute as to what is the entitled remuneration for the work, the matter shall be referred to arbitration under the provisions of this agreement.

**9. Notice** Any notice between the parties shall be in writing and posted to the other party to the last known address.

**10. Arbitration:**

(i) Any difference, dispute, claims which may arise between the parties hereto as to the construction or true intent and meaning of any of the terms and conditions herein contained or as to any payment to be made in pursuance hereof or as to any other matter arising out or as to any other matter arising out of or connected with or incidental to these presents or as to the rights, duties and obligations of any of the parties, such difference, dispute or claim shall be mutually settled amicably by arbitration through a sole arbitrator appointed by CERC.

(ii) The arbitration shall be conducted in accordance with the Arbitration and Conciliation Act, 1996 or any statutory amendments thereof. The venue of such arbitration will be Delhi/New Delhi.

(iii) Arbitration shall be subject to English language.

**11. JURISDICTION:** In respect of any legal proceedings arising as a result of or relating to or incidental to this agreement, the courts in Delhi/New Delhi alone shall **have exclusive jurisdiction**

IN WITNESS WHEREOF, the Parties above named have executed this Agreement of the day, month and year mentioned hereinabove.

Signed by ..... on behalf of.....(the Consulting Firm/company) in the presence of.....

Signed by ..... on behalf of CERC in the presence of.....