

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION No. 215/2010

Coram : Dr. Pramod Deo, Chairperson
Shri S.Jayaraman, Member
Shri V.S.Verma, Member
Shri M.Deena Dayalan Member

Date of Hearing: 17.8.2010

Date of Order: 17.9.2010

In the matter of:

Permission to introduce renewable energy certificate contract under renewable energy segment and permission to introduce intra-day, any-day(s) and month ahead contracts under physical market segment.

And in the matter of

Power Exchange of India Ltd., Mumbai

... Petitioner

The following were present:

Ms. Rupa Devi Singh, PXIL
Shri Prabhajit Kumar Sarkar, PXIL
Shri R.Singh, PXIL
Dr. K.K.Govil, PXIL
Shri S.C.Sexena, NLDC

ORDER

Power Exchange of India Ltd., the Petitioner herein, has filed this petition on 27.7.2010 seeking permission to introduce Renewable Energy Certificates (REC) contract under renewable energy segment and permission to introduce Intra Day, Any Day(s) and Month Ahead contracts under physical market

segment. It has been averred in the Petition that currently in accordance with the permission granted by the Commission to the Petitioner for commencing operations of Day Ahead market, vide Order dated 30.9.2008, the Petitioner has introduced three products on the exchange viz., Day Ahead Spot, Day Ahead Contingency and Weekly under the Physical Market Segment. The volume coming into the exchange are also showing increasing trend. In order to meet the market requirements through new contracts, the Petitioner has proposed to introduce Any Day(s) and Month Ahead Contracts which can be traded on a Term Ahead basis. Additionally, the Petitioner has proposed to introduce an intra-day contract for trade of immediate surplus or deficit power on the same day basis. These new contracts will be part of the physical market Segment of the Petitioner's exchange. The major characteristics of these contracts have been provided in the petition.

2. It has been averred in the petition that pursuant to the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 ("REC Regulations") the Petitioner is desirous of introducing Renewable Energy Certificate contracts ("REC Contracts") under REC segment. It has been further submitted that the REC Contracts have been designed as per the REC Regulations and the Detailed Procedures issued by the National Load Despatch Centre which has been designated as the Central Agency. The major characteristics of these contracts have been provided in the petition. The

Petitioner has accordingly prepared the Business Rules for Intra-Day, Any Day(s) and Month Ahead Contracts under the Physical Market Segment and Business Rules for Renewable Energy segment for approval of the Commission.

3. In light of the above, the following prayers have been made in the petition:-

- “1. To allow the Petitioners to start Intra- day Contract, Any Day(s) and Month Ahead Contract under the Physical Market Segment as per Central Electricity Regulatory Commission (Open Access in Inter State Transmission) Regulations, 2008;*
- 2. To allow the Petitioners to start Renewable Energy Certificate Contract under the Renewable Energy Segment as per Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010;*
- 3. To allow addition in Annexure V of Physical Market Segment Business Rules;*
- 4. To approve Business Rules annexed and the revised Bye Laws;*
- 5. Any other order for smooth functioning of these additional contracts.”*

4. The Bye-laws, Rules and Business Rules submitted by the Petitioner on 19.4.2010 were subsequently revised and re-submitted 3.8.2010. The revised Bye-laws, Rules and Business rules are being examined separately. The Business Rules pertaining to REC is being dealt with through this order.

5. Since, the National Load Despatch Centre (NLDC) has been designated as the Central Agency for the purpose of REC Regulations and Nodal Agency for

Power Exchanges, views / suggestions were sought on the proposals contained in the Petition.

6. During the hearing on 17.8.2010, the Commission directed the Petitioner to file its responses to the comments and observations received from the NLDC which has been entrusted with the functions of Central Agency. The Commission further directed the Petitioner to undertake test run of the software for various scenarios with at least 10 test cases covering different types of demand supply curves (including all boundary conditions like high demand, high supply, less supply, less demand and the scenarios which depict the matching rules with reference to any kind of priority or pro-rata method being used, time priority used in selection of participants, solution with demand supply curves overlapping at multiple points) and submit the test results latest by 27.8.2010.

7. The Petitioner, on 30.8.2010, has submitted clarifications on the issues raised during the hearing and as reflected in the Record of Proceedings. Subsequently, the Petitioner has submitted on 1.9.2010 the revised Business Rules after incorporating some of the suggestions made by the Central Agency. The Petitioner has also submitted the compliance report of the directions regarding test run of software for various scenarios covering different types of demand supply curves and solution with demand supply results of the mock test run.

8. The Business Rules of Power Exchange of India Limited have been examined in detail and our observations thereon are given in the succeeding paragraphs.

9. **Market Segment and Type of Contracts:** The REC market segment shall cover two categories of certificates – Solar and Non Solar. The REC market segment shall be operated in accordance with CERC (Power Market) Regulations, 2010 (hereinafter ‘Power Market Regulations’) and REC Regulations read with the Detailed Procedure for accreditation, registration, issuance and redemption of RECs approved by the Commission.

10. **Price Discovery Mechanism to be used:** The Commission approves a double sided closed bid auction with uniform price solution as price discovery mechanism for REC contracts. Since REC trading is a new market development the price discovery mechanism will be reviewed after one year. The Commission may direct changes in the price discovery methodology based on market feedback and market liquidity/transaction volume to keep pace with the market conditions.

11. **Membership of Power Exchange:** Any membership shall be in compliance with Power Market Regulations in all respects including the processes related to handling money transactions, contribution to the settlement guarantees fund and risk management practices. Power Market Regulations

specifies a distinct membership structure for the category of members who are neither electricity traders nor distribution licensees (including deemed distribution licensee) nor grid connected entities. We direct the Petitioner to formulate new processes and procedures for client transactions of this category of Members and suitably incorporate the same.

12. **Risk Management System and Margin Requirements:** The Power Exchange shall allow a member or client, as applicable, to place a purchase order against cash amount made available by such member or client equivalent to 100% of the order value. Similarly, bids of seller will be valid only if sufficient number of RECs is available in the account of the particular seller. This availability of REC in sellers' account will be confirmed by Central Agency before auction matching is executed by the Power Exchange.

13. **Termination/Cancellation of Contract:** The Commission does not envisage a situation where a contract requires to be terminated or cancelled due to shortage of funds of buyers or non-availability of RECs for sellers as there are built-in pre-auction matching checks when the participants place orders. Hence, the Petitioner is directed to delete any such clause including the clauses on Contract Expiry and Termination of Agreement. The default in payment clause also needs to be changed accordingly.

14. As per detailed procedure issued by NLDC (Central Agency) for REC Mechanism, Power Exchange(s) are required to issue a certificate of purchase of REC to the buyers. The Exchange is directed to issue to a buyer an electronically printable certificate along with REC account statement pertaining to such certificate. To have consistency in the market, a standard certificate which a power exchange is required to issue to a buyer of Renewable Energy Certificates is **annexed** with the order. The Trade information shall be sent to the Central Agency as per the agreed data interchange formats which shall also include the Certificate number of the certificate which is being issued by the Power Exchange to a buyer. The State Agency may verify the details regarding purchase of RECs by a buyer from REC Registry Website. Accordingly, the applicant shall modify and incorporate the provisions for interchange of data information and issuance of such certificates in its Business Rules. It is further directed that in order to bring consistency in the market, the certificates shall be issued to buyers within five days from the date of trading of such certificates. The existing provisions shall be modified by the Petitioner accordingly.

15. **Mock Test Run of Power Exchange system in coordination with NLDC:** The Petitioner is directed to approach the Central Agency for testing and mock run of the PX. The Central Agency after being satisfied about facilities available at the PX, particularly the data transfer and communication interface along with the timelines shall give clearance to the Petitioner to start operation of REC market segment of the PX.

16. **Transaction Fee:** The Member Service Charge which has been provided for Day Ahead and Term Ahead market segment under Regulation 27 of Power Market Regulations shall be applicable for REC market segment. The Petitioner shall bring this fact to the notice of its existing members as also of the persons seeking enrolment as members or clients of the exchange in future.

17. The following discrepancies are observed in the revised Business Rules:
- i) Clause 1.4 of Matching Rules should be explained with an example.
 - ii) In clause 2.3, a distinction should be made between multiple bids submitted by a single entity and bids submitted by multiple entities.
 - iii) On page 30, in illustration, the line "Sorting of orders based on Priority" should clearly indicate the matching rule being used.
 - iv) On Page 31, in illustration, the line "Exact Overlapping at multiple price Curves" should be corrected as "Exact Overlapping at multiple price points for Demand and Supply Curves".

18. The Petitioner is directed to amend the Business Rules pertaining to Renewable Energy Segment in accordance with our observations and directions given as above. Subject to compliance of the above directions, approval is hereby accorded to Business Rules pertaining to Renewable Energy Segment of the Power Exchange of India Limited. The amended Business Rules shall be

forwarded to the Commission for information and record within 15 days from the date of this order.

19. Permission is hereby accorded to the Petitioner to launch REC contracts on its Exchange.

20. The prayer of the Petitioner to start Intra-day Contract, Any-Day(s) and Month-Ahead Contract under the Physical Market Segment and related issues raised by the Petitioner shall be taken up in due course.

sd/- (M. DEENA DAYALAN) MEMBER	sd/- (V.S.VERMA) MEMBER	sd/- (S.JAYARAMAN) MEMBER	sd/- (DR.PRAMOD DEO) CHAIRPERSON
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Name of the Exchange
may be with logo

Certificate of Purchase of REC(s)

Number C-[Certificate No.]

Issued On-[DD-MMM-YYYY]

Serial No.-[....*.....]

[NAME OF CORPORATION]

A [] Corporation

[#Issued] Certificates

RECType [Solar / Non Solar]

Session ID

This certifies that [REC Buyer] is the holder of [Number Issued] [Solar / Non Solar] non transferable Renewable energy certificate(s) bought on _____ day of _____, 20____, through *Name of the exchange.*

This certificate represented hereby is issued and shall be held subject to all the provisions of the regulations of Honorable CERC as amended from time to time and the Bye-laws, Rules and Business Rules of *name of the exchange.*

This is a computer generated statement hence doesn't require signature.

*** - Prefix as first three digits to differentiate the Power Exchange**