



FORUM OF REGULATORS (FOR)

Sectt: Central Electricity Regulatory Commission (CERC)

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Quotation No.: 1/21/2014-Study(REC-Mech./FOR/CERC

'FOR' invites sealed quotations from reputed Consultancy firms by 30.04.2014 upto 1500 Hrs. for "**Review of Renewable Energy Certificate Mechanism**". Detailed Terms of Reference (TOR) are available on the website of 'FOR' i.e. www.forumofregulators.gov.in. This is in supersession of earlier quotation no. 1/21/2014-Study(REC-Mech./FOR/CERC dated 01.03.2014. **Assistant Secretary, FOR.**

Consultancy on Review of Renewable Energy Certificate

Mechanism

Terms of Reference (TOR)

1. Preamble

Honorable Prime Minister of India on June 30, 2008 had announced National Action Plan for Climate Change (NAPCC) emphasizing high economic growth rate together with identifying measures to address the climate change. The NAPCC has identified increasing the share of renewable energy in total electricity consumption in the country as one of the important measures to combat climate change. The NAPCC envisaged Dynamic Minimum Renewable Purchase Standard of 5% during FY 2009-10 which shall further increase by 1% for next 10 years. This would translate to constitute approx 15% of the renewable energy generation in total energy mix of India by 2020. One such policy instrument, prescribed in NAPCC, to achieve desired level of penetration of renewable energy is Renewable Energy Certificate (REC) Mechanism which would enable large number of stakeholders to purchase renewable energy in a cost effective manner.

Taking into consideration the recommendation of NAPCC for the promotion of renewable energy, the Central Electricity Regulatory Commission (CERC) and the Forum of Regulators (FOR) developed a detailed design of regulatory framework, operating framework and Institutional arrangement for introducing the REC Mechanism in India.

Renewable Energy Certificate (REC) mechanism essentially seeks to address the mismatch between availability of RE sources and the requirement of the obligated entities to meet their renewable purchase obligation across States.

So far inter-State exchange of renewable energy was constrained due to the fact that such transactions are governed by inter-State open access Regulations and the regional energy accounting framework, which necessitates scheduling of power. Some of the RE sources such as biomass power or bagasse based cogeneration can be scheduled and inter-State open access transactions based on such firm RE sources have taken place in the past, however, inter-State exchange of power based on infirm RE sources such as wind energy, solar power, small hydro power, etc., was constrained. Besides, the cost of open access wheeling under long term arrangement was prohibitive for such non-firm RE sources due to their inherent lower capacity utilisation factors. The REC mechanism addresses these constraining factors as the Certificate is issued for the energy generated at the point of injection into the Grid. Thus, it is envisaged that the REC mechanism shall facilitate emergence of large number of cross-border RE transactions based on non-firm RE sources, while at the same time, enhancing the volume of cross-border RE transactions based on firm RE sources as well.

2. Regulatory Initiative for REC Mechanism

In order to accelerate the large scale deployment of the renewable energy, the Central Electricity Regulatory Commission (CERC) on January 14, 2010 notified Regulations outlining Terms and Conditions for Recognition and Issuance of Renewable Energy Certificates for Renewable energy Generation Regulations, 2010. The implementation of the regulations enables obligated entities to meet their RPO target through purchase of REC which may have been generated in other States. Further, the Regulations notified by the CERC also envisage the price of the REC to be determined through market mechanism at the exchange platform only. However, in order to safeguard the interests of various stakeholders it is also envisaged that the price of REC shall be governed by the forbearance (ceiling) price and a floor price to be determined by the CERC from time to time. The CERC, in order to operationalise the REC Mechanism, has issued the orders in the matter of

determination of forbearance and floor price for the REC Framework. Later, CERC has also formulated procedures for accreditation, registration, issuance and redemption of RECs along with applicable fees and charges. Further, it has approved rules/bye laws and mechanism for REC price discovery on power exchanges. In addition to the initiative taken by the CERC, the Forum of Regulators (FOR) has approved the Model Regulations on Renewable Purchase Obligation, its compliance and Implementation of REC Framework for the State Electricity Regulatory Commission. Since the publication of the FOR Model Regulations, all the States except Sikkim, have specified/reviewed renewable purchase obligation and its compliance regulations.

In the month of March 2011, first REC trade transaction took place on the power exchanges. So far 34 non-Solar REC and 20 Solar REC trading sessions have been successfully completed. This has successfully established the operationalisation of REC mechanism in India.

Need for 'Review of REC mechanism'

The concept of REC Mechanism was introduced essentially to encourage the large scale deployment of renewable energy and to facilitate inter-State exchange of RE power irrespective of geographical constraints and to help RE constrained States to accomplish their RPO targets. The mechanism enabled the obligated entities to meet their Renewable Purchase Obligation through the purchase of REC which may be generated in other State and attempted to address the mismatch between availability of RE sources and the requirement of the obligated entities to meet their obligation.

Based on the interactions with various stakeholders and feedback received from lenders, RE developers, Utilities, it is envisaged that certain features of the REC mechanism such as eligibility of a renewable energy generators, enabling framework for bilateral/bundled REC transactions, multiple REC transactions, etc need to be reviewed /explored in order to accelerate RE

capacity addition which is one of the prime objectives for introduction of REC as market mechanism. There is huge unsold inventory of RECs. RPO target setting and enforcement is also perceived to be very weak at present and therefore obligated entities are not coming forward for the purchase of RECs. The distribution licensees consider that the REC is only an electronic certificate and does not come with physical energy. This underscores the need for critical examination of the regulatory framework of REC with a view to finding possible way forward for effective implementation of this important instrument. Operational experience and interaction with stakeholders have revealed the following view points on the existing REC framework:

- a) The price discovery on power exchange under current arrangement is constrained by the fact that it is short term in nature and takes place only once in a month.
- b) New RE project capacity addition would like to seek assurance of market off-take of REC alongwith stability of price regime on long term basis, which cannot be ensured through trading platform under existing arrangement.
- c) The lenders/financial institutions and RE project developers tend to seek long term certainty on the REC off-take arrangement and stability on price/revenue expectations through RECs in order to safeguard against variations in revenue affecting ability of RE project to cover its debt service obligations.
- d) From the perspective of obligated entity, long term certainty on price and availability of RECs is also critical to plan its RPO target compliance strategy.
- e) All RE generation should get the REC credit and in the event of a buyer contracting such RE generation, the REC credit should be transferred to him along with energy. At the same time, freedom should be there with the generator to sell his electricity in either bundled or unbundled form.
- f) REC market is segmented in solar and non-solar REC. Such segmentation restricts market for the respective technologies. REC market should be

unified and upcoming technologies which need support in the initial phase of its development should be given higher REC credit.

To understand the implication of the above issues, Forum of Regulators has decided to commission a detailed study.

3. Scope of work

The Consultants shall undertake detailed consultation with various stakeholders to identify various limitations as well as expectations to make REC an effective market mechanism and to facilitate RE capacity addition in the long run. Accordingly, various issues need to be assessed for sustainability of REC Mechanism. Some of the key issues as currently identified and to be covered as part of this Study shall be as under:

1) **Trading Arrangements** – The existing framework allowed transaction of the renewable energy certificates only at the power exchange platform, operating under the guidance of the Central Electricity Regulatory Commission. However, it has been observed that in order to have wide participation and coverage of the scheme, other mechanism for the transaction (including bilateral trade transactions of the certificates) should be explored. Hence, the Consultant shall undertake study on assessing the feasibility of permitting the transaction of the renewable energy certificate through alternate trade mechanisms, apart from power exchanges, as currently prevalent.

2) **Number of Trading Transactions of Renewable Energy Certificates** – Under the present mechanism, the renewable energy certificates is redeemed as soon as its transaction takes place at the power exchange. The present mechanism allows transaction of REC only once. However, in order to enhance liquidity and volume in the market and encourage wider participation from the entities, ‘certificate trading mechanisms’ prevailing in

other countries permits multiple trading of the certificates with longer tenure for validity of RE Certificates. The legal tenability of such mechanism needs to be explored in Indian context. The Consultant shall present an analysis on feasibility of multiple trading of renewable energy certificates under Indian perspective.

3) **Long Term Visibility of Floor and Forbearance Price** – In order to safeguard the interests of the RE Generator and Obligated Entity, the CERC has determined the floor and forbearance price. The current Order on the floor and forbearance price is valid till FY 2012-17. The present mechanism allows the renewable energy generator to opt for either the preferential tariff route or participate in the REC Mechanism. It has been observed that RE developers/lenders (Banks and FIs) for their new RE projects seek a long term visibility of floor price so as to make necessary decision for participating in the mechanism upon evaluating price risk and off take risk. Hence, the Consultant shall envisage undertaking study which shall determine the floor and forbearance price for the renewable energy certificate under long term scenario.

4) **Bundling of Electricity with REC** – The existing framework permits the renewable energy generator participating in the mechanism, to sell the electricity to the host distribution utility and the equivalent renewable energy certificates are transacted at the exchange platform. The Obligated Entities intending to purchase the renewable energy certificates along with the electricity from the same Renewable Energy Generator, cannot do so as purchase of energy and REC in bundled form is not permitted under existing framework. The concept is essentially permitting the bilateral transaction of the renewable energy certificates. The long term bilateral trading of RECs ensures the long term offtake of RECs which enhances the bankability of RE projects using REC mechanism from lenders' perspective. The Consultant shall explore and analyse the feasibility of issuance of RECs to every unit of

generation and bi-lateral transaction of the REC under the prevailing legal framework.

5) **Amendment to the framework of Renewable Energy Certificate** – As a part of this study/mandate, the Consultant shall suggest the changes required in the REC regulations, detailed procedure, bye-laws of Power Exchanges etc. The modifications shall be aimed to ensure long term Sustainability of REC Mechanism and shall present the same to the FOR for its perusal.

4. Deliverables and Duration of Assignments

4.1 The Consultant while considering the criticality of all factors important for the execution of the project shall undertake this study in a phases. It is envisaged that the assignment would be completed within a period of around four (4) months from the date of commencements including public consultation process.

4.2 The Consultant will be required to:

- a) Submit fortnightly status report of progress of the assignment from the date of signing of agreement, to FOR Secretariat;
- b) Submit inception report followed by presentation at the end of 8 days from the date of award of assignment;
- c) Submit interim report followed by presentation at the end of 60 days from the date of award of assignment;
- d) Submit Draft Report at the end of the 90 days from the date of award of assignment;
- e) Submit Final Report at the end of the 120 days from the date of award of assignment
- f) Carry out any other instruction given by FOR Secretariat within the scope of the assignment.

5. Qualification Criteria:

The Consultant should have completed at least three assignments in the last five years of assisting SERC/CERC/FOR/MNRE on Renewable Energy related matters. The consultant should have experience in advising on regulatory issues regarding Renewable Energy in general and Renewable Energy Certificate Mechanism in particular.

6. Payment Schedule:

- i. 10% Advance of the total fee of the study at the time of signing agreement/acceptance of the offer, subject to production of Bank guarantee for equal amount to be valid till the amount is to be absorbed in the amount payable to the Consultant.
- ii. 15% on submission of the inception report;
- iii. 30% on submission of draft legislation;
- iv. 30% on submission of the final model legislation after incorporating suggestions/comments of the Forum; and
- v. balance 15% on successful completion and acceptance of the final model legislation by the 'FOR'.

7. Termination of contracts:

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

8. Application and Evaluation Criteria:

- 8.1 The format of application is at **Annexure-I** and **Annexure-II**.
- 8.2 The Consultant is required to submit **four (4)** 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.
- 8.3 Technical component will carry 70% weightage and Financial component 30% weightage.

8.4 The bids of the eligible bidders as per Clause 5 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 may be evaluated based on the following model criteria:

S.No.	Technical Parameters	Score
1.	The Consultants relevant experience for the assignment	30
2.	The qualification and experience of the key staff proposed	40
3.	Approach and Methodology	30
	Total Technical Score	100

8.5 The minimum qualifying marks in the Technical Evaluation will be 70% of the total score for technical component.

8.6 Only those bidders, who qualify technically as per Clause 8.5, would be considered for Financial Evaluation.

8.7 The bidders shall quote the price inclusive of all expenditures (such as manpower, travel etc.) and all applicable taxes.

8.8 Weight for Financial parameters: Proposal with the lowest cost in any particular State will be given a financial score of 100 and other proposals given financial scores that are inversely proportional to their prices.

8.9 The total score will be obtained by combining the Technical and Financial scores

8.10 Only successful bidder would be communicated the award of compliance audit assignment.

8.11 The right to reject any or all bids rests with the FOR Secretariat without assigning any reason.

8.12 The 'FOR' and the Consultant 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 Consultant 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 the 'FOR', and the decision of the 'FOR' shall be conclusive and binding. The fees so fixed and paid shall be deemed to be final payment in such cases.

8.13 The Consultant shall abide by the contract as per **Annexure-III**.

**DETAILED PROPOSAL FOR CONSULTANCY ON REVIEW OF RENEWABLE
ENERGY CERTIFICATE MECHANISM
(TECHNICAL)**

Note: Four (4) copies of the proposal shall be submitted to **Assistant Secretary, Forum of Regulators (FOR)**.

I. GENERAL INFORMATION:

01. Title of the Proposed Assignment :
02. Name and address of the Consultant :
(Organization/Institution)
03. Name & Designation 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 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 Consultant :
(Individual/Organization/Institution)
03. Name & Designation of the Key Person :
04. Contact address of the Key Person :
(e-mail/fax/telephone)
05. Certificate of authorization in case of Institutes/other organizations
(Format enclosed at **Appendix-‘A’**).

II. Fee Proposed:

06. Amount of Fee proposed for:

Signature of the Principal Investigator/
Head of the Consultant Team
(Authorised Signatory)

CERTIFICATE

The undersigned agree to abide by the conditions of the grants and certify that available facilities for proposed work shall be extended to the Consultancy team.

Signature of Executive Authority
Investigator/of the Organisation

Signature of the Principal
Head of the Study Team

Name and Designation

Date

Name and Designation

Date

Signature of Co-investigator

Name and Designation

Date

Official stamp of

Organization/Institution

On 50Rs Stamp Please

AGREEMENT

This agreement made on this day of at New Delhi BETWEEN ----
-----hereinafter referred to as **“the Consultant”** of one part and the **Forum
of Regulator** (herein after called **"FOR"**) of the other part.

WHEREAS

- (A) the FOR, on being satisfied that there is a need to appoint the Consultant to assist the FOR in issuing **“Consultancy on Review of Renewable Energy Certificate Mechanism ”**.
- (B) the Consultant submitted his quotations vide his letter no.....dated.....
- (C) the FOR, on scrutiny of the response received from the Consultants has decided to engage the Consultants for the above said assignment under the provisions of the Central Electricity

Regulatory Commission (Appointment of Consultants) Regulations,
2008

- (D) the Consultants 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 to the Consultant by the FOR duly marked so.
- (ii) “Person” shall include any company or body corporate or association or body of individuals, whether incorporated or not, or artificial juridical person;
- (iii) “Secretary” means the Secretary of the Commission.

2. **Nature of work:** The Consultant 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 this agreement.

4. Obligations of the Consultant:

- (i) The Consultant shall adhere to the time-frame specified in the Terms of Reference and submit the deliverables to the

Secretary.

- (ii) The Consultant shall make the presentations before the FOR as required by the FOR Secretariat.
- (iii) The Consultant shall ensure that the interim and final findings of the study and the contents of his interim and final reports to the FOR are not disclosed to any person unless expressly authorized by FOR.

5. Entitlements of the Consultant:

- (i) The Consultant shall be entitled to Rs.....(in words.....) (all inclusive).
- (ii) The Consultant shall be paid as per clause-6 of Terms of Reference.
- (iii) In appropriate cases a part of the money payable will be released only after satisfactory performance of the system/item provided by the Consultant (case to case basis).

6. Restrictive terms:

- (i) The Consultant 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 Consultant 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 FOR, disclose such information to any person for any reason at any time;
- (iii) The FOR shall be entitled to, without prejudice to any other right for civil or criminal proceedings, receive from the

Consultant 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 FOR:

- (i) Without any notice: The assignment may be terminated by the FOR, any time, with immediate effect, under any of the following circumstances:
 - (a) It has come to notice that the Consultant has been convicted for an offence involving moral turpitude or unethical professional practices.

- (ii) With one week notice: The assignment may be terminated by the FOR, under any of the following circumstance, by giving one week's notice and after providing an opportunity to the Consultant to offer explanation:
 - (a) It has come to the notice of the FOR that the Consultant 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 Consultant based on which the assignment was awarded to the Consultant.
 - (c) The Consultant has failed, without any valid justification, to adhere to the time-frame specified by the FOR in the assignment.

(d) The Consultant has violated any of the provisions of the agreement.

At the option of either parties

(iii) Both the parties namely, the FOR and the Consultant 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, the FOR shall pay the Consultant, the remuneration for the work performed 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 the FOR.

(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 Consultant) in the presence of.....

Signed by, on behalf of the FOR in the presence of.....