



FORUM OF REGULATORS (FOR)

**C/o: Central Electricity Regulatory Commission
1st Floor, Chanderlok Building, 36, Janpath, New Delhi – 110 001
Tel : 23753920/ Fax : 23753923**

‘FOR’ invites sealed quotations from reputed Consultancy firms by 18.10.2016 upto 1500 Hrs. for Engagement of Consultant for conducting a study on "Electric Vehicle: Impact on Grid". Detailed Terms of Reference (ToR) are available on the website of “FOR” i.e. www.forumofregulators.gov.in

Assistant Secretary (FOR)

Engagement of Consultant by Forum of Regulators (FOR) for conducting a study on “Electric Vehicles: Impact on Grid”

Terms of Reference (TOR)

1.0 Introduction:

- 1.1 The Forum of Regulators (FOR) has been constituted by the Government of India in terms of Section 166 (2) of the Electricity Act, 2003. The Forum consists of Chairperson of the Central Commission as Chairperson and the Chairpersons of the State Commissions as Members of the Forum. Secretarial assistance to the Forum is provided by the Central Commission. The Forum is responsible for harmonization, coordination and ensuring uniformity of approach amongst the Electricity Regulatory Commissions across the country, in order to achieve greater regulatory certainty in the electricity sector.
- 1.2 FOR has been taking steps towards ensuring that the provisions in the Electricity Act 2003 (EA) and the policies i.e. National Electricity Policy (NEP) and Tariff Policy are implemented. The Electricity Act 2003 as well as the abovementioned policies emphasise the necessity of promoting competition as well as ensuring viability of the sector. Further, the Electricity Act 2003 also seeks promotion of efficient and environmentally benign policies.
- 1.3 The National Electric Mobility Mission Plan 2020, notified by the Department of Heavy Industry, Ministry of Heavy Industries and Public Enterprises, Government of India seeks to enhance national energy security, mitigate adverse environmental impacts from road transport vehicles and boost domestic manufacturing capabilities for Electric Vehicles (EVs). It is envisaged that EVs are expected to play a significant role in India's transition to a low-carbon eco-system.
- 1.4 Government of India has formulated a scheme, titled Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India, under the National Electric Mobility Mission Plan 2020, to encourage the progressive induction of reliable, affordable and efficient electric and hybrid vehicles. The scheme is proposed to be implemented till 2020, wherein it is intended to support the hybrid/EVs market development and its manufacturing eco-system to achieve self-sustenance.

- 1.5 Further, advancements in technology and battery are making EVs more attractive to the consumer. EVs have already started to penetrate the market in several Indian cities. Therefore, considerable growth is envisaged in the EVs market with greater adoption of EVs in India.
- 1.6 It is also envisaged that greater adoption of EVs in India would have a considerable impact on the electric grid.
- 1.7 In view of the above, there is a need for a detailed technical and economic assessment of the impact of electric vehicles on the grid.

2.0 Objective:

To conduct a study on the impact of electric vehicles on grid requirements and capacity and necessary framework to enable implementation thereto.

3.0 Scope of the work assigned to the Consultant:

The consultant shall;

- i. Review existing literature and best practices – national as well as international - on EVs;
- ii. Compile and analyse case studies from various countries on experience with & management of EVs and the electric grid, as well as costs incurred;
- iii. Conduct technical and economic assessment of the impact of electric vehicles on the grid;
- iv. Analyse role of system operators, regulators and utilities in operations, planning and monitoring of EVs;
- v. Recommend measures to address the impact of usage of electricity to power vehicles and impact on the grid.
- vi. Suggest suitable regulatory framework to enable implementation of EVs so as to facilitate smooth integration into the grid in India
- vii. Provide inputs for draft regulations

4.0 Deliverables and duration of the Assignment :

The assignment shall be completed within a period of 180 days from the date of award of consultancy which will be completed in two parts :

Part 1: The consultant shall be required to complete the following activities in 120 days' time as under:

- i. Submit an interim report based on detailed study by the end of 45 days from the date of award of assignment;
- ii. Submit a draft report on the study by the end of 90 days from the date of award of assignment
- iii. Submit the draft final report including inputs for the draft regulations after discussion with FOR Secretariat by the end of 120 days from the date of award of assignment

Part 2: Consideration by the Forum of Regulators

- iv. A presentation before the Forum of Regulators and finalisation after incorporating the suggestions of FOR, if any, by the end of 180 days from the date of award of assignment.

5.0 Payment Schedule :

- i. 10% of the professional fee as 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 end of the agreement;
- ii. 15% of the professional fee on submission of the Inception Report;
- iii. 30% of the professional fee on submission of draft report;
- iv. 30% of the professional fee on submission of the final report after incorporating suggestions/comments of the Forum; and
- v. Balance 25% of the professional fee shall be payable (after adjustment of advance if any) on successful completion and acceptance of the final report by the "FOR".

6.0 Qualification/Experience Criteria :

- i. The bidder should be a Consultancy Firm/Research Organization (including consortiums and partnerships) having experience of working with Statutory Bodies and/or Utilities; and
- ii. The bidder should have completed at least three (3) assignments (national / international) in total in the last five (5) years related to: a) techno economic assessment of Distributed Energy Resources like Roof top Solar, Energy Storage etc; b) issues pertaining to grid integration of renewable energy sources; c) issues involving hybrid technology/EVs;.

- An assignment on any of the issues necessarily means it should have been legally executed between two different contracting organisations / institutions for a financial consideration. Case studies, unless they satisfy the above requirement on any of the issues will not be qualified as assignments; and
- iii. The bidder is expected to have complete knowledge of Electricity Act, 2003 as well as policies, Rules, Regulations and guidelines issued under the Act.

7.0 Application and Evaluation Criteria :

- i. The format of application is at **Annexure – I** and **Annexure – II**.
- ii. The bidder is required to submit two (2) copies of bids for Technical offer (each of which will be treated as original) along with soft copy (in word format in a pen drive) and one copy of Financial offer, duly sealed in separate envelopes.
- iii. Technical component will carry 70% weightage and financial evaluation 30% weightage.
- iv. The bids of the eligible bidders as per Clause 6 will be scrutinized by Consultancy Evaluation Committee (CEC) and shortlisted bidders will be called for interaction with the CEC (to be supplemented with a presentation not exceeding 6 slides). Their technical performance will be evaluated based on the following criteria:

Technical Parameters	Marks
The Consultant's relevant experience for the assignment	30
Understanding of the issues and approach to be followed	30
The qualifications and experience of the key staff (who would actually be working on the project) proposed	40
Total Technical Score	100

- v. The minimum qualifying marks in the Technical Evaluation is 70% of the total score for technical component.
- vi. Only those bidders, who qualify technically as per Clause 7(v), would be considered for Financial Evaluation.
- vii. Weight for Financial Evaluation Proposal with the lowest quoted price will be given a financial score of 100 and other proposals would be given financial scores that are inversely proportional to their prices.
- viii. The total score will be obtained by weighting the Technical and Financial scores.
- ix. Only successful bidder would be communicated the award of consultancy assignment.

- x. The right to reject any or all bids rests with the FOR Secretariat without assigning any reason.
- xi. 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.
- xii. The consultant shall abide with the Contract as per **Annexure – III**.
- xiii. The address for submission of the proposal and seeking clarification is given below:

The Assistant Secretary (Forum of Regulators),
C/o Central Electricity Regulatory Commission,
First Floor, Chanderlok Building,
36, Janpath, New Delhi – 110001
Ph: 91-11-23353503 Fax: 91-11-23753923

DETAILED PROPOSAL FOR STUDY
(TECHNICAL)

Two (2) copies of the proposal along with project summary to be submitted to Assistant Secretary, FOR.

I. GENERAL INFORMATION:

01. Title of the Proposed Study :
02. Name and address of the Organization/ :
Institution
03. Name & Designation of the Key Person :
04. Contact address of the Key Person :
(e-mail/fax/telephone)
05. Net-worth/Turnover of the Organization/ :
Institution
06. PAN No of the Organization/ :
Institution

II. TECHNICAL SPECIFICATIONS:

07. i. Department(s) of the organization/Institution(s) where the study will be carried out

ii. Other department(s), if any, which will collaborate in this study
08. Brief review of the state-of-art in the field (National and International)
09. Detailed Approach & Methodology for undertaking the assignment

10. Facilities available for the proposed work in the applicant's organization/institution
11. Previous experience of the proposer in this or related field (enclose documentary evidence)
12. Biographical sketch of the Study Team
 - (i) Name
 - (ii) Designation
 - (iii) Date of Birth
 - (iv) Education and Experience

(a) Academic Qualifications

Degree	University	Field(s)	Year

(b) Experience

Institution	Topic of work done	Period

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

13. Capacity to impart training/transfer of knowledge

DETAILED PROPOSAL FOR STUDY
(FINANCIAL)

I. GENERAL INFORMATION:

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

II. Fee Proposed:

07. Amount of Fee proposed for:

Components	Basis	Amount (in Rs.)
(I) Consultant Charges		
(II) Misc./Others (if any)		
Total		

(The amount quoted is exclusive of statutory levies and taxes etc.)

(RUPEES_____)

Signature of the Principal Investigator /

Head of the Study Team

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 investigator/study team.

Signature of Executive Authority
Investigator/of the Organisation

Signature of the Principal
Head of the Study Team

Name and Designation

Name and Designation

Date

Date

Signature of Co-investigator
Name and Designation
Date

Official stamp of
Organization/Institution

** Wherever applicable

On 50Rs. Stamp Paper

AGREEMENT

This agreement made on this day of [here give the date of the agreement] at New Delhi BETWEEN [here give the Name and address of the consultant or Professional Expert] hereinafter referred to as “the consultant/professional expert” of one part and the **Forum of Regulators, C/o. Secretariat: Central Electricity Regulatory Commission, 3rd and 4th Floor Chanderlok Building, 36 Janpath, New Delhi -110001** (herein after called "the FOR") of the other part.

WHEREAS

- (A) the FOR, on being satisfied that there is a need to appoint a **[Corporate consultant or Professional Expert]** for study on “**Electric vehicles: Impact on Grid**” invited quotations vide notice [here give the No and date of the notice]
- (B) the [consultant/Professional Expert] responded to the above notice and submitted his quotations vide his letter [here give the No and date of the quotation of the consultant]
- (C) the FOR, on scrutiny of the responses received in response to its above mentioned notice dated [here give the date of the notice inviting quotations] including the one received from the [consultant/professional Expert] has decided to engage the consultant/professional expert for the above said assignment.
- (D) the consultant/professional expert 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” means 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 FOR.

2. Nature of work: The consultant/professional expert shall be engaged as **[Corporate consultant or Professional Expert]** for the study on “**Electric vehicles: Impact on Grid**” in accordance with the Terms of Reference (**Annexure-I**) 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] and shall be valid for a period of 180days which may be extended with the mutual consent of the parties without any financial commitment.

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 Secretary.
- (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/professional expert shall be entitled to Rs. [Here give the amount payable and the schedule of payment and any other provision such as TDS, etc.]
- (ii) The consultant/professional expert shall be paid as per clause 5 of Terms of Reference (**Annexure-I**).
- (iii) The consultant/professional expert shall not be entitled to any other remuneration or reimbursement or perquisites or facilities.

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 he/she/it has association.
- (ii) The consultant further affirms and confirms that he/she/it shall hold all Confidential Information in confidence and with the same degree of care he/she/it uses to keep his/her/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/ professional expert a compensation for the damages for violation by him/her/it of any of the terms of the agreement which shall be limited to the total fee of the assignment.

7. Penalty for Late Submissions: The time line for deliverables is to be strictly adhered to. For any delay, except where extension is allowed, 1% penalty per day will be levied for value of work executed after the due date of completion, subject to a ceiling of 10% of contracted amount.

8. 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/professional expert has been convicted for an offence involving moral turpitude or unethical professional practices.
- (ii) With one month notice: The assignment may be terminated by the FOR, under any of the following circumstance, by giving one month's notice and after providing an opportunity to the consultant/professional expert to offer explanation:
 - (a) It has come to the notice of the FOR that the consultant/professional 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 Forum that there is a material change in the circumstances of the Consultant based on which the assignment was awarded to the consultant/professional expert.
 - (c) The consultant/professional expert 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/professional expert have the option to terminate the assignment by giving a notice of one month or the equivalent remuneration in lieu thereof.

9. Effect of termination: On pre-mature termination of the assignment, the FOR shall pay the consultant/professional expert, the remuneration for the work performed by him/her/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.

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

11. 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.

12. 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, [the consultant/Professional party or on behalf of] in the presence of

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