



# **SOLAR ENERGY CORPORATION OF INDIA LIMITED**

(A GOVERNMENT OF INDIA ENTERPRISE)

**INVITES EXPRESSION OF INTEREST (EOI)**

FOR

**RENEWABLE ENERGY GENERATION MONITORING  
SYSTEM**

EOI No: SECI/IT/65/I/2016

Dated: 29-06-2016

Telephone No: 011- 71989200

Fax No: 011 - 71989244

SECI website: [www.seci.gov.in](http://www.seci.gov.in) / [www.seci.co.in](http://www.seci.co.in)

**Note: This document contains a total of 17 pages. No change in the document by the prospective bidder is permissible**



## **SOLAR ENERGY CORPORATION OF INDIA LIMITED**

(A Government of India Enterprise)

### **INVITATION OF EXPRESSION OF INTEREST**

EOI No: SECI/IT/65/I/2016

Date: 29-06-2016

Solar Energy Corporation of India Limited (hereinafter called “SECI”), invites EOI from companies who have the capability to implement and maintain real-time monitoring system for renewable energy generation. Companies having presence and experience within the country are encouraged to participate in the EOI.

For the implementation of above mentioned work, interested parties should submit their EOI proposal along with all supporting documents complete in all aspect on or before 20-07-2016 up to 2.00 PM in the office of “SECI” in prescribed format.

EOI documents which include eligibility criteria etc., can be downloaded from SECI website [www.seci.gov.in](http://www.seci.gov.in) / [www.seci.co.in](http://www.seci.co.in). Any Amendment / Corrigendum / Clarification with respect to this EOI shall be uploaded on SECI website only. Interested parties should regularly follow up for any Amendment/Corrigendum/Clarification on the above website.

**DISCLAIMER:**

1. Though adequate care has been taken while preparing the EOI document, the prospective parties shall satisfy themselves that the document is complete in all respects. Intimation of any discrepancy shall be given to this office immediately.
2. Solar Energy Corporation of India Limited (SECI) reserves the right to modify, amend or supplement this EOI document.
3. While this EOI document has been prepared in good faith, neither SECI nor their employees or advisors make any representation or warranty, express or implied, or accept any responsibility or liability, whatsoever, in respect of any statements or omissions herein, or the accuracy, completeness or reliability of information, and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of this EOI document, even if any loss or damage is caused by any act or omission on their part.

## **Bid Information Sheet**

<b>Document Description</b>	Invites Expression of Interest (EOI) to “Implement and maintain real-time monitoring system for renewable energy generation”
<b>EOI Document No.&amp; Date</b>	SECI/IT/65/I/2016 <span style="float: right;">Date: 29-06-2016</span>
<b>Last date &amp; Time of Submission of Response to EOI Document</b>	20-07-2016 (14:00 Hrs) at SECI office
<b>Bid Opening (Techno-Commercial)</b>	20-07-2016 (15:00 Hrs) at SECI office
<b>Processing fee of EOI Document (non-refundable)</b>	₹ 5000 + Service Tax (@15%) to be submitted in the form of DD/Pay Order along with the response to EOI Document in favour of “Solar Energy Corporation of India Ltd”, payable at New Delhi
<b>Designation, Address and other details (For Submission of Response to EOI)</b>	Sr. Manager(IT)/Dy. Manager(IT) Solar Energy Corporation of India Limited 1st Floor, D-3, A-Wing, District Centre, Religare Building, Saket, New Delhi-110017 Tel No. 011-71989200.
<b>Important Note:</b> Prospective Applicants/Prospective bidders are requested to remain updated for any notices/amendments/clarifications etc. to the EOI Document through the websites <a href="http://www.seci.gov.in">www.seci.gov.in</a> / <a href="http://www.seci.co.in">www.seci.co.in</a> . No separate notifications will be issued for such notices/amendments/clarifications etc. in the print media or individually.	

## **INFORMATION & INSTRUCTIONS TO PROSPECTIVE BIDDERS (ITB)**

### **1.0 General Information:**

Solar Energy Corporation of India Limited (SECI), is a company under Section-3 of the Companies Act 2013, dedicated to Solar Energy sector. SECI is established under the administrative control of the Ministry of New and Renewable Energy, Government of India. Mandate of SECI allows wide ranging activities to be undertaken with an overall view to facilitate implementation of Jawaharlal Nehru National Solar Mission (JNNSM) and achieving the targets set therein. The Corporation has the objective of developing Solar Technologies and ensuring inclusive solar power development throughout India.

The objective of the project is to develop and implement a Web Based System to record and to analyse report accurate real time generation data from various power plants throughout India, related to renewable energy.

### **1.1 Scope of Work:**

The system should be able to monitor real time generation from renewable energy plants of heterogeneous vendors in distributed locations country-wide typically solar. Key points are enumerated below:-

1. The System should be able to monitor the generation from the distributed plants on a 15 minutes time interval.
2. As this a distributed system, the data from the generating sources should be pushed to the cloud server using latest communication technologies such as GPRS, 3G, lease link etc.
3. The monitoring service shall include a complete graphical user interface (GUI) to represent all the monitored power generation parameters.
  - i. Online views: Tabular and Graphical
  - ii. Viewing Online Data: The software shall provide facility to monitor instantaneous electrical parameters on real time basis.
  - iii. Viewing Historical Data: The software shall provide historical data views for analysis purpose.
  - iv. Alarm Management:
    1. It shall provide user definable alarms for different parameters.
    2. These alarms shall be available for system monitoring on real time basis.
4. Each Intelligent Field Equipment (if any) should have unique connection channel for communication with the cloud server at data centre. The Intelligent Field Equipment should be capable of automatically connecting to central server for hassle free field data transmission, event logging and remote field equipment configuration using the same dedicated unique communication channel.

5. The Intelligent Field Equipment should publish their data to the central server on their own at predefined frequency of 10 minutes and above as configurable by User. In case of interruption in the communication, the Intelligent Field Equipment should be capable of resuming the communication from the last point.
6. Reporting Parameters: Reports should provide detailed information on Electrical Generation data such as daily generation, average power factor, voltage, current, kWh, frequency, irradiance, peak power etc.
7. The web based application (User Interface) should provide the following:
  - a. Calendar: Ability to see the data from date of installation till present.
  - b. Energy Generation in kWh: Ability to show the cumulative kWh values for different locations, for any time interval selected.
  - c. Net Import/ Export :The Dashboard should also show the Net Import/Export of Energy over the period selected
  - d. Optimization: The Dashboard should also have a baseline generation which is the benchmark generation of the power generation based on the kw/MW of solar installed
  - e. The Dashboard should also have a pan-India sky view functionality of seeing all the locations on India Map.
8. The Web Based Application Software and Services should provide tabular as well as graphical reports on following intervals:
  - a. 15minutes/30 minutes
  - b. Hourly
  - c. Daily
  - d. Weekly
  - e. Monthly
  - f. Yearly
9. Graphic Reports should be interactive with functionality of zoom in & Zoom out.
10. If required, there should be flexibility to create customized reports as per specific needs.
11. There should be provision to generate reports based on current day, for a particular day and for a period where user should be able to choose the start date and end date.
12. The monitoring service shall be capable of providing logs of monitored power parameters in a downloadable excel or CSV format
13. Reports should also present graphs where applicable and provide export in form of Excel, Word or PDF to the user.
14. The User should be able to view the report of a single location as well as a group of sub-location over the specified period.
15. The Web Based Application should generate notifications/alerts and communicate via SMS and E-mails.
16. The application shall be purely web based and shall not need any client installation. It should require only web browser to work. Users can securely access system from anywhere using Internet.
17. A mobile app for generation reports is also envisaged to be the part of the solution.

18. Users can access information from home, office, or anywhere else without any user or client licenses through secure password protected web portal.
19. The web portal should essentially be responsive.
20. The Contractor shall supply, install and commission all relevant hardware and software for monitoring the performance of location-wise renewable energy generating systems independently.
21. All energy generation shall be available on the same cloud software platform and also visible on one common screen/ user interface.
22. The Contractor shall provide up to five (5) years of online monitoring services including any upgrades in its software.
23. The entire system and its functionalities should be maintained under software as service model where solution provider shall maintain entire network from field equipment/s if any, communication link, IT infrastructure, software and web services.
24. The Application must be modular and scalable so that it can at a later date be integrated into an integrated large scale Information Management System. Any other appropriate feature which should be part of the hosted solution can be suggested by the prospective bidder as part of project plan in his/her response to this EOI.
25. The system should be hosted at minimum Tier-III Data Centre and must be support Web Based operation with concurrently maintainable site infrastructure with expected availability of 99.5%.
26. Service provider should ensure regular backup of data during the contract period.
27. Prospective EOI participant may be required to make a presentation of the proposed solution after submission of the response.

## **1.2. Eligibility Criteria**

1. The Prospective bidder should be a company registered under the Indian Companies Act 1956/2013.
2. The Prospective bidder should have completed at least 3 years of operation in the field of web application/ software development/ real-time energy generation monitoring system.
3. The Prospective bidder must have a valid website.

## **1.3. Experience**

The prospective bidder should have successfully executed during last 3 years at least one contract of Implementation of Renewable Energy Generation Monitoring System in India which should be successfully operational (period of successful operation should be one year or more) at client side as on date of opening of EOI.

## **1.4. Financial Capability**

Turn over should be minimum 25 lakhs for either FY 2015-16 or average of three financial years FY 2013-14, 2014-15 and 2015-16. In case the audited annual accounts for the year 2015-16 are not available with the bidder, turnover shall be considered for the FY 2014-15 or average of three financial years FY 2012-13, 2013-14 and 2014-15.

## **1.5. Cost of EOI Submission:**

The Prospective bidder shall bear all costs associated with the preparation and submission of its EOI, and the SECI, will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the EOI process.

## **1.6. Clarifications**

- a. A prospective bidder requiring any clarification on the EOI documents may notify SECI in writing/FAX/Email at the SECI's mailing address indicated in the cover page. SECI however reserve the right not to respond against the same. If SECI chooses to respond it will be informed by uploading on SECI website ([www.seci.gov.in](http://www.seci.gov.in) / [www.seci.co.in](http://www.seci.co.in)). The Prospective bidder should remain updated on the website for any amendments/ corrigendum/ clarifications.
- b. SECI is not under any obligation to entertain/ respond to suggestions made or to incorporate modifications sought for.

## **1.7. Amendment of EOI Documents**

1. At any time prior to the deadline for submission of EOI, the SECI may, for any reason, whether at its own initiative or in response to a clarification requested by a Prospective bidder, modify the EOI document by issuing clarification(s) and/or amendment(s).



2. SECI will not bear any responsibility or liability arising out of non-receipt of the information regarding Amendments in time or otherwise. Prospective bidders must remain updated with the websites for any such amendment before submitting their EOI.
3. All the notices related to this Bid which are required to be publicized shall be uploaded on **www.seci.gov.in / www.seci.co.in** and prospective bidders are required to keep themselves updated on the same.

#### **1.8. Contents of the EOI Document**

1. EOI document includes:
  - a. Information & Instruction to Prospective Bidders (ITB)
  - b. Formats -1 to Formats -5
2. The Prospective bidder is expected to examine all instructions, forms, terms, and conditions in the EOI document. Failure to furnish any information as required in the EOI document or submission of an EOI not substantially responsive to the EOI documents in every respect will be at the participant's risk and may result in rejection of its EOI application.

#### **1.9. Documents Constituting the EOI in the Envelope -1**

The EOI prepared by the Prospective bidder shall comprise the following components:

1. Covering Letter as per prescribed Format-1.
2. Brief profile of the Company or brochure.
3. Authorization certificate on behalf of the signatory of EOI on company letter head.
4. Copy of Certification of Incorporation.
5. Self-attested copies of work order and project execution certificate in support of experience as mentioned at clause 1.3.
6. Contact details of client where project is successfully deployed and operational.
7. Annual accounts for all the years in support of financial capability as per clause 1.4 along with a certificate from chartered accountant.
8. The total required duration for system development and implementation and the project plan for the same.
9. Budgetary for the complete scope of work (mentioned under para 1.1) in format – 4 as enclosed in this EOI.
10. Format-2 as enclosed in this EOI.
11. If any prospective bidder have any suggestion or feedback related to scope of work, prospective bidder will submit the same in Format-3 as enclosed in this EOI.
12. Format – 5 as enclosed in this EOI (if MSME registered).

**Note:**

**At the time of EOI opening above documents should be enclosed in the Envelope-1. EOI will be considered as non-responsive if documents required under clause 1.9 are not submitted**

**1.10. Sealing and Marking of EOI documents**

EOI shall be prepared and sealed in the following manner:

- a. The envelope (**Envelope-1**) shall contain all documents as defined in Clause 1.9 and shall be super scribed as “**Renewable Energy Generation Monitoring System**” with **EOI Number and Date of EOI opening 20-07-2016 (3:00PM)**.
- b. The Cover envelope (**Envelope-1**) shall be addressed to the SECI at the below mentioned address:

**Sr. Manager (IT)/Dy. Manager (IT)  
Solar Energy Corporation of India Limited  
D-3, A Wing, 1st Floor,  
Religare Building, District Centre,  
Saket, New Delhi-110 017**

- c. Envelope shall be sealed properly & shall indicate the Name & Address of the Prospective Bidder.
- d. Email, Telex, cable or facsimile EOI's will be rejected.
- e. The EOI must be complete in all aspect and should contain requisite documents as required in the EOI document.

**1.11. Deadline for Submission of EOI documents**

- a. EOI documents must be received by the SECI at the address mentioned below:

**Solar Energy Corporation of India Limited  
D-3, A Wing, 1st Floor,  
Religare Building, District Centre,  
Saket, New Delhi-110 017**

No later than 20-07-2016 **at 2.00 PM**. In the event of the specified date for the submission of EOI being declared a holiday for the SECI, the EOI will be received up-to the appointed time on the next working day.

- b. The SECI may, at its discretion, extend this deadline for submission of EOI by amending the EOI documents. Such information, if any, will be informed in the SECI website.

#### **1.12. Late Bids**

Any Application received by the SECI after the deadline for submission of EOI prescribed by the SECI, pursuant to Clause 1.11 above, will be rejected and/or returned unopened to the Prospective Bidder.

#### **1.13. SECI's Right to Accept Any application and to Reject any or All applications submitted against the response to this EOI**

The SECI reserves the right to accept or reject any application, and to annul the EOI invitation process at any time at its sole discretion for whatsoever reasons and without incurring any liability whatsoever to any of the Prospective Bidder for any cost expense loss etc.

**SECI reserves the rights to invite limited tender amongst the shortlisted applicants/prospective bidders of this EOI. Further, terms & conditions of bidding shall be mentioned in the limited tender only.**

#### **1.14. Correspondence for seeking clarifications**

Prospective bidder requiring any clarification of the EOI documents may contact in writing or by FAX /E-Mail to the following Persons:

<b>Name</b>	<b>Contact Details</b>	<b>Email id</b>
Sh. Deepak Mittal Dy. Manger (IT)	Solar Energy Corporation of India Limited 011-71989200	<a href="mailto:deepak.mittal@seci.gov.in">deepak.mittal@seci.gov.in</a>

#### **1.15. Exemption from Processing Fee**

Prospective bidders who wish to seek exemption from processing fee for participation in this EOI on the ground of MSME registration are required to furnish self-attested copy of MSME registration and an undertaking on company letter head as per Format – 5 as enclosed in this EOI. Non furnishing of same shall render prospective bidder's response ineligible for further consideration.

**Covering Letter**

***(To be submitted by the party on the Company's Letter Head)***

**General Manager (IT/Solar)  
Solar Energy Corporation of India Limited (SECI)  
1st Floor, D-3, A Wing, Religare Building  
District Centre, Saket  
New Delhi - 110017**

(Bidder to Provide Date and reference)

Dear Sir,

Sub: **Expression of Interest (E.O.I) for Renewable Energy Generation Monitoring System**

We, the undersigned, express our interest for the subject EOI and declare the following:

- (a) We are duly authorized to represent and act on behalf of \_\_\_\_\_ (name of the company) and an authorization certificate to this effect is enclosed).
- (b) We have examined and have no reservations to the EOI document including Amendment No(s) & Clarification No(s) \_\_\_\_\_ (if any).
- (c) With reference to your invitation for EOI dated \_\_/\_\_/\_\_, we are furnishing herewith all the required details as per the prescribed formats.
- (d) We have enclosed Processing Fee of ₹ ....., in the form of DD/ Pay Order no..... [Insert DD/Pay Order number] dated ..... [Insert date of DD/Pay Order].
- (e) SECI and /or its authorized representatives are hereby authorized to conduct any inquiries or investigations to verify the statements, documents and information submitted in connection with this application, and to seek clarifications from our bankers and clients. This letter of Application will also serve as authorization for any individual or authorized representative of any institution referred to in the supporting information, to provide such information deemed necessary and as requested by SECI.
- (f) SECI and /or its authorized representatives may contact the following nodal persons of the company for further information on any aspects of the application:

Contact Person		
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Name and Designation	Address for Communication	Telephone No	Email ID

(g) This application is made in the full understanding that:

1. Through this EOI, SECI intends to invite bids from intending prospective bidders for Renewable Energy Generation Monitoring System.
2. EOI process will be subject to verification of all information submitted, at the discretion of SECI.
3. SECI reserves the right to reject or accept any or all applications, cancel the EOI process without any obligation to inform the Prospective bidder about the grounds of same.

(h) The undersigned declare that the statements made and the information provided in the duly completed application are complete, true and correct to the best of my knowledge & belief.

**Name :**

**In the Capacity of :  
(Designation)**

**Signed  
Duly authorized to sign the application for and on behalf of:**

**Date:**

**Company Profile and Organization Structure**

Name of the Company:

Registered Address:

Contact Person & Designation:

Annual Turn Over:

Postal address for communication:

Telephone No.:

Fax No.:

Mobile No.:

E-mail address:

Documents regarding Certificate of Incorporation is enclosed

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Company Seal: \_\_\_\_\_

**Details of the suggestions**

<b>Sr No</b>	<b>Title</b>	<b>Description</b>	<b>Remarks</b>	<b>References</b>
1.				
2.				
3.				
4.				
5.				
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**Budgetary Quote**

<b>Sl. No.</b>	<b>Slab (Number of renewable power plants to be monitored)</b>	<b>All Inclusive total cost per renewable power plant (In INR)</b>
<b>1.</b>	1 to 50	
<b>2.</b>	51 to 100	
<b>3.</b>	more than 100	

Note: Breakup of the above mentioned cost should also be enclosed herewith.

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Company Seal: \_\_\_\_\_



**Undertaking from the Prospective bidding Company on their Letter Head**

Name:  
Full Address:  
Telephone No.:  
E-mail address:  
Fax/No.:  
To,  
Solar Energy Corporation of India Limited (SECI)  
D-3, Wing-A, First Floor, Religare Building  
Saket, New Delhi-110017

Dear Sir,

We refer to the EOI No.....dated.....for “Renewable Energy Generation Monitoring System”.

We have carefully read and examined in detail the EOI, including its amendments and clarifications as available on SECI website ([www.seci.gov.in](http://www.seci.gov.in)).

We confirm that M/s..... (Insert name of Bidding Company) has fulfilled all the requirements of MSME Act and as per the acknowledgement/certificate of MSME provided by ..... (Insert name of Authority who has provided the MSME Certificate), we are eligible to participate in this above referred EOI.

Further, we are complying and will continue to comply all terms and conditions of acknowledgement/certificate of MSME until any further orders from the MSME authority. Any change in the acknowledgement/certificate of MSME, submitted to SECI, shall be immediately apprised to SECI for their any further decision in this regard.

Further, we are also eligible for the benefits provided under MSME Act, 2006 and any further order issued by Govt. of India in this regard prior to last date of bid submission for the aforementioned EOI.

In case any information provided/documents submitted or anything material or otherwise is found incorrect w.r.t above undertaking, SECI shall have the right to reject the submitted proposal. In addition to above, we (including our affiliate/parent/assigns) may also be debarred by SECI to participate in any future tender.

**Signature of Managing Director/Authorised signatory  
(With company Stamp)**