



Expression of Interest for Renewable Energy (RE) based Solutions/ System/ Technology for meeting energy requirements in remote areas (HAA) of Himalayas, India

Ref: SECI/SD/EOI/20-21

Date: 25.09.2020

1. Introduction:

Solar Energy Corporation of India Limited (SECI), a CPSU under the aegis of Ministry of New and Renewable Energy (MNRE), is working with a mission to build a 'Green India' through harnessing abundant solar radiation and wind resource for production of Renewable Energy (RE) and thereby to achieve energy security for the country. SECI is the implementing agency for many of the GOI Schemes for the Solar and Wind Energy where SECI acts as intermediary procurer of Solar and Wind power for procurement and supply of RE power on back to back basis. Accordingly, SECI has so far floated tenders for 45000 MW, of which 31000 MW have already been awarded and Power Sale Agreements (PSAs) has been signed with various Distribution Companies (DISCOMs).

One of the objectives of SECI includes promotion of new technology and development of demonstration projects. SECI has also been working effectively for decarbonisation (i.e. reducing dependence on fossil fuel like diesel, kerosene oil) by way of RE sources. Accordingly, SECI is willing to explore techno-commercially viable Renewable Energy based solutions for supplying power to small off grid consumers, residing in High Altitudes Area (HAA) and extreme cold climatic conditions (approx. +2⁰ C to -50⁰ C). The site details are given at Annexure-I. Further, the system is to be developed through IPP mode/ EPC Mode and shall be entirely funded by the GOI through SECI for the beneficial utilization by the consumers.



2. Objective:

SECI thus invites Expression of Interest from IPP, OEM, Technology Provider, Technology Licensor for exploration / availability of systems / solutions based on Renewable Energy Sources / Energy Storage Sources or combination of these two which can be deployed under hostile climatic conditions for meeting energy requirements as detailed at Annexure-I.

3. Scope:

- i) This EOI is for assessing the availability of RE based system / solutions for deployment under hostile climatic conditions for catering to the energy requirements as detailed at Annexure-I.
- ii) Solution / system should be modular in nature and can be replicated / deployed under similar conditions. Further, system should have highest degree of safety in regard to the persons and environment.
- iii) Solutions / system should be modular and easy to dismantle/ assemble, transport, deploy, commission, operate and requires limited maintenance during operation.
- iv) SECI envisages useful life of such system / solution to be around 10 years.
- v) SECI will coordinate with the consumer for facilitating logistic support, obtaining necessary permission for deployment at its site, if any.
- vi) The selected entity shall be required to provide training for the maintenance of the system / solutions to the authorized representatives of the consumer.
- vii) Parties may be required to enter into a definitive agreement / arrangement for the deployment of the system / solutions.
- viii) Systems which have a proven track record of operation in extreme cold conditions and at high altitudes will be given preference.



4. Implementation Schedule:

SECI intends to **deploy system within a time period of around 18 months** i.e. preferably by 2021.

5. Submission of EOI

- A. Interested parties are required to submit information, complete in all respects, in the enclosed format (Refer ***Annexure-A***).
- B. An e-consultation meeting with all prospective participants **is schedule on 05.10.2020 at SECI's Office / online platform.**
- C. Based on interest received, all interested parties shall be required to make a comprehensive presentation (around of 20 minutes) through video-conferencing covering brief of technology, system/ solutions, techno-commercial viability, implementation plan, O & M aspects.
- D. Response to this EOI **is to be submitted by 06.11.2020** through email to solar@seci.co.in with subject of email being **Expression of Interest (EOI) for Renewable Energy (RE) based Solutions/ System/ Technology for meeting energy requirements of small decentralised power needs located in HAA of Himalayas.** Further, for any further clarifications

The Additional General Manager (Schemes)
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Disclaimer:

Prospective Participants acknowledges and agrees that:

- 1 *Solar Energy Corporation of India (SECI) has issued this Expression of Interest (EOI) with the best intention to explore the market and is under no compulsions to enter into definitive contractual agreements. This EOI does not guarantee conversion of this EOI into any definitive contractual agreements.*
- 2 *It is also agreed that SECI in its sole discretion, may reject any and all proposals made by the Participants, may change the conditions relating to the EOI or cancel this EOI at any time and for any reason.*
- 3 *Prospective Participants acknowledge and agree that response to the EOI is purely voluntary action on their part and for any expenditure on this account by them, SECI will have no obligation or liability to the prospective seller in the event of cancellation of EOI.*

Note: Prospective participants are requested to keep themselves updated with the website www.seci.co.in on regular basis for any addition / deletion / modification / clarification or notification in respect of this EOI. No separate notification will be issued in any other media.

Annexure – A

Information to be submitted by the participants:

1. Details of the Participants:

Sl. No.	Parameters	Details
i.	Name of the Company / Institutions / Entity	
ii.	Address for communication	
iii.	Country of Incorporation*	
iv.	Net-Worth of the Company (As on 31-03-2020)	
v.	Annual turnover of the Company for FY 2019-20	
vi.	Details of Authorized person*	a) Name b) Contact No. c) Email.
vii.	Brief Description of proposed System/ Solutions	Please attach a separate sheet / brochure / presentation
viii.	Brief of Operational Data like time line and performance (if any)	
ix.	Details of Past Experience of the Entity in the Sector and the proposed System/Solutions	
x.	Indicative Cost of the System (CAPEX)	
xi.	Indicative PPA tariff (For IPP Mode)	
xii.	Indicative O & M Cost of the System (OPEX)	
xiii.	Implementation Schedule	
xiv.	Facilitation required from SECI during development / deployment phase	
vii.	Any other details/ suggestions /	

2 Any reservations / suggestions on the EOI or suggestions on any aspect of the EOI.

Signature:

Name:

Designation:

(Authorised Signatory)



Annexure - I

Site Conditions

Location: HAA

Temperature: +2⁰ C to -50° C (approx.)

Altitude: around 5400 m [approx. 18000 - 20000 ft from Mean sea Level (MSL)]

Land: No firm ground suitable for mounting structures, only frozen snow

Average annual snowfall: 10 m (approx. 30 ft and more)

GHI: Approximately 4.3 kWh/m²/day

Accessibility: The location is likely to be inaccessible by road. Most likely every component will have to be transported on backpack by human effort. Therefore, there may be a need to disassemble and reassemble.

Fuel Supply: The fuel will have to be transported in small containers (20-25 litres) and stored for at least 90 days. So logistic aspects need to be considered w.r.t. safety, storage and filing of tanks etc.

Electrical Load Details

Present Source of Power: 20 kVA diesel generator

Load: Around 10kW