



SOLAR ENERGY CORPORATION OF INDIA (SECI)
NBCC PLAZA, TOWER-I, IV-FLOOR, SECTOR-V, SAKET
NEW DELHI-110 017, INDIA.

Above mentioned address is likely to change, bidders are requested to keep themselves updated regarding same through SECI's website www.seci.gov.in

Telephone No & Fax No: 91-11- 71989230/37 & 71989241

SECI website: www.seci.gov.in

NIT: SECI/SOLAR/PV/R&D/13-14/001

Turnkey Supply (Including Air Freight, Insurance, Customs Clearance in India, Local Transportation to National Institute of Solar Energy, Gwal Pahari Gurgaon, subsequent transportation to the site with Transit Insurance, Civil works for lab space), Installation, Commissioning and Maintenance of Calibration lab along with Instruments for calibration of Measuring Instruments for Solar Radiation and other meteorological parameters at National Institute of Solar Energy, Gwal Pahari Gurgaon.

SOLAR ENERGY CORPORATION OF INDIA

(A GOVERNMENT OF INDIA ENTERPRISE)

INVITES REQUEST FOR SELECTION OF BIDDERS (NIT)

FOR

Turnkey Supply, Installation, Commissioning and Maintenance of Calibration lab along with Instruments for calibration of Measuring Instruments for Solar Radiation and other meteorological parameters



SOLAR ENERGY CORPORATION OF INDIA (SECI)
NBCC PLAZA, TOWER-I, IV-FLOOR, SECTOR-V, SAKET
NEW DELHI-110 017, INDIA.

Telephone No & Fax No: 91-11- 71989230/37 & 71989241

Above mentioned address is likely to change, bidders are requested to keep themselves updated regarding same through SECI's website www.seci.gov.in

SECI website: www.seci.gov.in

Notice Inviting Tender

Turnkey Supply, Installation, Commissioning and Maintenance of Calibration lab along with Instruments for calibration of Measuring Instruments for Solar Radiation and other meteorological parameters at National Institute of Solar Energy, Gwal Pahari Gurgaon..

Solar Energy Corporation of India invites sealed bids **(IN TWO BID SYSTEM (1) Technical bid in a cover (2) Price bid in a separate cover and (3) EARNEST MONEY DEPOSIT in a separate cover – and all the three covers are put together in a single cover)** from eligible bidders for the aforesaid packages.

The bidder or their manufacturer should have successfully completed any one of the following similar jobs in India during preceding five years as on the date of bid opening.

Single order of minimum 10 Million rupees or two orders of minimum 6 Million rupees each or three orders of minimum 4 Million each. Similar jobs means “Supply of Pyranometer / Pyrhelimeter / Solar Tracking System / data loggers”. The average annual turnover of the bidder in the preceding three (3) financial year’s average as on the date of bid opening shall not be less than 20 Million Rupees each year.

Bidding documents shall be available on <http://www.seci.gov.in> from 05/03/14. Earnest Money Deposit (EMD) of 12,00,000/- or USD 20,000/- (refundable to unsuccessful bidders without any interest) in the form of Demand Draft drawn in favour of Solar Energy Corporation of India payable at New Delhi, India or in the form of Bank Guaranty must accompany the offers. Bids shall be received up to **14.00** Hours on 15/04/14 & technical bids shall be opened on the same day at **15.00** Hours.

For any further clarifications please visit at SECI website <http://www.seci.gov.in> or contact Mr. Abhishek Kumar Ambasta (Senior Engineer, 011-71989237). Bidder shall submit the signed (by authorized signatory) & stamped copy of the tender document along with their response.

Senior Manager (Solar, PV)
Solar Energy Corporation of India
Solar Energy Corporation of India
NBCC Plaza, Tower-1 IV Floor
Sector V, Saket, New Delhi 110017, India

1.0	SECI invites tender from the eligible bidders for the package as per brief particulars of scope of work and qualifying requirements mention here in.	
2.0	Brief Scope of Work: - Turnkey Supply, Installation, Commissioning and Maintenance of Calibration lab (including civil construction of lab building) along with Instruments for calibration of Measuring Instruments for Solar Radiation and other meteorological parameters with 5 years warranty at National Institute of Solar Energy, Gwal Pahari Gurgaon. SECI reserves the right to increase / decrease / change the locations and number of equipments depending on the demand at any time of the contract.	
2.2	Bid Receipt date & time	15/04/2014 at 02.00 PM
2.3	Bid Opening date & time	15/04/2014 at 03.00 PM
2.4	Bid processing Fee	Rs. 15,000 /- or USD 250 in the form of Demand Draft drawn in favour of “Solar Energy Corporation of India” payable at New Delhi, India to be submitted along with BID document, in a separate envelop, along with Technical BID
3.0	EARNEST MONEY DEPOSIT	Rs. 12,00,000 /- or USD 20,000 /- in the form of DD/Bank Guarantee drawn in favour of “Solar Energy Corporation of India” payable at New Delhi, India, in a separate envelop, along with Technical BID. In case EMD is from foreign bank (listed in Annexure-4), bidder must get it certified by bank’s local branch in India (preferably in Delhi) or from State Bank of India.
4.0	QUALIFYING REQUIREMENTS	
4.1	The bidder should be a manufacturer or an authorized dealer / distributor / channel partner of manufacturer of Solar Irradiance measuring Equipments. The bidder must submit the manufacturer authorization from OEM in case of authorized dealer / distributor / channel partner.	
4.2	The bidder or their manufacturer should have successfully completed any one of the following similar jobs during preceding five years as on the date of bid opening. Single order of minimum Rs. 10 Million or Two orders of minimum Rs. 6 Million each or Three orders of minimum Rs. 4 Million each Similar jobs mean “Supply of Pyranometer / Pyrheliometer / Solar Tracking System with data loggers”.	
4.3	The average annual turnover of the bidder in the preceding three (3) financial year’s average (2010-11, 2011-12, 2012-13) as on the date of bid opening shall not be less than INR 20 Million for each year.	

5.0	The Bidder shall submit the following documents in support of meeting the QR along with their bid.
5.1	The bidder to submit documentary support in support of Clause 4.1 of QR.
5.2	Self-attested Copies of Purchase Orders along with invoices and installation certificate in support of Clause 4.2 of QR.
5.3	Copies of Annual report together with certified audited balance sheet and profit & loss account as submitted to Register of Company with a specific certificate from Chartered Accountant confirming the turnover for the preceding three financial years (2010-11, 2011-12, 2012-13) as on the date of bid opening in support of Clause 4.3 of QR
5.4	“Foreign companies bidding as prime bidder must have local own establishment for providing the various services required within the scope of tender. In case of foreign bidder is bidding with Indian firm as local partner, the Indian firm must have sufficient experience in service and maintenance of similar job (facility) in India. The experience of Indian firm must be documentarily supported with past experience of maintenance and service of similar systems for at least last three years. The documentary evidence is mandatory and must be enclosed with bid with complete contact details of customers for obtaining feedback by “SECI”.
6.0	The bid documents must carry page numbers and an index containing all the details of necessary documentary support against QR should be preceding the BID document, bid will be rejected if bidder fails to provide the documentary support for clause 4.1, 4.2 and 4.3 and as requested in clause 5.1, 5.2, 5.3 and 5.4. (Proper flagging of relevant pages is desirable).
7.0	Notwithstanding anything stated above, the Employer reserves the right to assess the capabilities and capacity of the Bidder / his collaborators/ associates/ subsidiaries/ group companies to perform the contract, should the circumstances warrant such assessment in the overall interest of the Employer.
IMPORTANT INFORMATIONS TO BIDDER	The prospective bidders may download a complete set of Bidding documents from SECI http://www.seci.gov.in
GENERAL CONDITIONS	
<ul style="list-style-type: none"> • In the tender, either the Indian agent on behalf of the Principal / OEM or Principal / OEM itself can bid but both cannot bid simultaneously for the same item / product in the same tender. • If an agent submits bid on behalf of the Principal / OEM, the same agent shall not submit a bid on behalf of another Principal / OEM in the same tender for the same item / product, except where makes are specified. • Responses submitted by Bidders who do not meet the qualifying requirements, or incomplete bids, will be rejected. 	

- SECI reserves the right to verify any claims made by Bidders and to carry out a capability assessment. The decision of SECI shall be final in this regard.
- SECI also reserves the right to accept any proposal or to reject all proposals at any time prior to any short-listing, award of contract without incurring any liability or without any obligation to inform the affected party of the grounds for such decision.
- SECI will not be responsible in any way for late submission of BID documents or any postal delay or delay of any form in transit.
- The proposals shall be opened on the Date & Time mentioned in the documents, or as per the latest intimation on SECI's website www.seci.gov.in, bidders are advised to remain updated. Representative of bidding company may at their option be present during opening of the BID.

ADDRESS FOR COMMUNICATION :

Dr. Y.B.K. Reddy
Senior Manager (Solar, PV)
Solar Energy Corporation of India
NBCC Plaza, Tower-1 IV Floor
Sector V, Saket, New Delhi 110017, India

Above mentioned address is likely to change, bidders are requested to keep themselves updated regarding same through SECI's website www.seci.gov.in

Phone: +91-9717273446

Email: solarpv@seci.gov.in

General Purchase Conditions (GPC) Volume – SI

NIT: SECI/SOLAR/PV/R&D/13-14/001

Turnkey Supply (Including Air Freight, Insurance, Customs Clearance in India, Local Transportation to National Institute of Solar Energy, Gwal Pahari Gurgaon, subsequent transportation to the site with Transit Insurance, Civil works for lab space), Installation, Commissioning and Maintenance of Calibration lab along with Instruments for calibration of Measuring Instruments for Solar Radiation and other meteorological parameters at National Institute of Solar Energy, Gwal Pahari Gurgaon.

No.	Index
1	Introduction

2	General Information
3	Definitions
4	Bidding Documents
5	Preparation Of Bid Proposals
6	Language of Bid
7	Documents comprising Bid
8	Validity Of Offer
9	Bid Security/Earnest Money Deposit
10	Conditions For Forfeiture Of EMD
11	Release Of EMD
12	Ineligibility For Future Tenders
13	Documents For Qualifying Requirements
14	Technical Proposal
15	Price Proposal
16	Deviation / Exclusion Schedule
17	Cost Compensation for Deviations
18	Format & Signing Of Bid
19	Submission Of Bid Proposal
20	Modification & Withdrawal Of Bids
21	Deadline For Submission Of Bids
22	Late Bids
23	Bid Opening
24	Determination Of Responsiveness
25	Bid Evaluation
26	Evaluation Of Bids
27	Discrepancies In Bid
28	Clarification Of Bids
29	Contacting SECI
30	Owners Right To Accept Bid
31	Award Criteria
32	Contract
33	Delivery Schedule
34	Contract Price
35	Scope Of Supply
36	Contract Performance Guarantee
37	Authorized Representative
38	Insurance
39	Freight
40	Packing
41	Inspection And Tests
42	Warranty
43	Patents
44	Indemnification
45	Removal Of Rejected Goods And Replacement

46	Payment At Reduced Rates
47	Modification Of Contract
48	Liquidated Damages
49	Force Majeure
50	No Breach Of Contract
51	Obligations Of The Bidder
52	Risk Purchase
53	Settlement Of Disputes
54	Notices
55	Termination
56	Taxes & Duties
57	Road Permit
58	Tax Deduction At Source
59	Payments To The Bidders
60	Jurisdiction
61	Limitation Of Liability

1.0	INTRODUCTION	<p>Solar Energy Corporation of India herein as ‘the SECI was set up on 20th September 2011, as a not-for-profit company under Section-25 of the Companies Act 1956 as an implementation and facilitation institution 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 JNNSM and achieving the targets set therein. The Corporation has the objective of developing Solar Technologies and ensuring inclusive solar power development throughout India. SECI is implementing MNRE sponsored project on “Research & Development in the field of solar energy “, As part of aforesaid R&D project, SECI intends to engage an agency to provide Turnkey Supply (Including Air Freight, Insurance, Customs Clearance in India, Local Transportation) to National Institute of Solar Energy Gwal Pahari Gurgaon, subsequent transportation to the site with Transit Insurance , Civil works for laboratory building , Installation, Commissioning and Maintenance of Calibration lab along with Instruments for calibration of Measuring Instruments for Solar Radiation and other meteorological parameters at National Institute of Solar Energy, Gwal Pahari Gurgaon.</p>
2.0	GENERAL INFORMATIONS	<p>The prospective Bidders are invited to submit a “Technical Proposal” and “Price proposal” for the package.</p>
3.0	DEFINITIONS	<p>Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:</p> <p>“Applicable Law” - This Contract including all matters connected with this Contract shall be governed and construed in accordance with the Indian Law both substantive and procedural and shall be subject to the exclusive jurisdiction of Indian courts at New Delhi (India).</p> <p>“Bidder” – Agency participating in the tender will be referred as bidder/ contractor / vendor.</p> <p>“Contract” means the Contract signed by the parties, to which these General Purchase Conditions (GPC) are attached together with all the documents listed in such signed Contract.</p>

		<p>“Contract Price” means the price to be paid for the performance of the Services, in accordance with the payment terms, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract.</p> <p>“Government” means the Government of INDIA.</p> <p>“Local Currency” means the currency of India. (i.e INR)</p> <p>“Party” means the SECI or the Bidder, as the case may be, and “Parties” means both of them.</p> <p>“Personnel” means persons hired by the Bidder as employees and assigned to the performance of the Services or any part thereof.</p> <p>“Services” means the work to be performed by the Bidder pursuant to this Contract, as described in the detailed Terms of Reference; and Law Governing the Contract</p> <p>This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Law.</p> <p>Language: English shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.</p>
4.0	BIDDING DOCUMENTS	<p>The bidding documents consist of</p> <ul style="list-style-type: none"> • Notice Inviting Tender (NIT). • General Purchase Conditions (GPC)- Volume – S I • Special Purchase Conditions (SPC)- Volume – S II • Bid Proposal Schedule - Volume – S III • Technical Specifications – Volume –S IV
4.1	CLARIFICATION OF BIDDING DOCUMENT	<p>A prospective Bidder requiring any clarification of the Bidding Document shall contact SECI atleast 15 days prior to the date of opening of Techno-commercial Bid in writing at the email address solarpv@seci.gov.in. Should SECI deem it necessary to amend the Bidding Document as a result of a clarification, it shall do so and intimate via notification on the website http://www.seci.gov.in</p>
4.2	AMENDMENT OF BIDDING DOCUMENT	<p>a) At any time prior to the deadline for submission of the Bids, SECI may amend the Bidding Document by issuing addenda/clarification.</p> <p>b) Any addendum/clarification issued shall be part of the Bidding Document and shall be intimated via notification on the website http://www.seci.gov.in</p> <p>c) To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, SECI</p>

		may, at its discretion, extend the deadline for the submission of the Bids.
5.0	PREPARATION OF BID PROPOSALS	<p>a) Proposals shall be complete in all respect and shall be submitted with requisite information and Annexure. It shall be free from any ambiguity, cutting or overwriting. Any such correction must be initialed by the persons who sign the proposals.</p> <p>b) For preparation of Proposals, Bidders are expected to examine the bidding documents in detail. Material deficiencies in providing the information requested may result in rejection of the proposal.</p> <p>c) All pages of the bid, except for un-amended printed literature, shall be initialed by the person or persons signing the bid.</p>
5.1	COST OF BIDDING	The Bidder shall bear all costs associated with the preparation and submission of its Bid, negotiation, discussion etc. and the purchaser shall not be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.
6.0	LANGUAGE OF BID	The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and SECI, shall be written in English. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the Bid, such translation shall govern.
7.0	DOCUMENTS COMPRISING THE BID	<p>The Bid shall comprise the following:</p> <p>a) DD towards Tender Processing Fee of Rs.15000/- or USD 250 /-</p> <p>b) Earnest Money Deposit;</p> <p>c) Documentary evidence establishing the Bidder's eligibility to bid,</p> <p>e) Technical specifications of the items offered;</p> <p>f) any other details required in the Bid Document</p> <p>g) Bid Price Schedules in separate sealed cover</p>
8.0	VALIDITY OF OFFER	The proposals shall remain valid for a period of 180 days from the date of opening of BID. In exceptional circumstances the purchaser may solicit the Bidder's consent for extension of the bid validity period. When the validity period is extended by the Bidder, the same shall be done without any modification to the bid proposal by the Bidder.

<p>9.0</p>	<p>BID SECURITY / EARNEST MONEY DEPOSIT (EMD) (This Deposit shall not carry any Interest).</p>	<p>a) The Bid Security deposit of Rs. 12.00 lakhs or USD 20,000 shall, at Bidders option, be in the form of a Demand draft drawn in favour of Solar Energy Corporation of India Payable at New Delhi, or a Bank Guarantee from any of the banks specified in the bidding documents.</p> <p>b) The format of Bank Guarantee towards Bid Security shall be in accordance with the form of bid security included in the bidding documents. The bid Security shall remain valid for a period of forty five (45) days beyond the original Bid validity period or beyond any extension in the period of Bid validity subsequently requested.</p> <p>c) Any bid not accompanied by an acceptable Bid Security in accordance with aforesaid provisions shall be rejected by SECI as being non-responsive and returned to the Bidders without being opened.</p>
<p>10.0</p>	<p>CONDITIONS FOR FORFEITURE OF EMD</p>	<p>The Earnest Money Deposit/Bid Security shall be forfeited in any of the following circumstances.</p> <p>a) If the Bidder withdraws or varies its Bid during the period of Bid validity specified by the Bidder in the Bid Proposal.</p> <p>b) If the Bidder does not accept the correction of its Bid Price pursuant to clause 27.0 of GPC.</p> <p>c) If the Bidder does not withdraw any deviation listed in prescribed Deviation Schedule of BID Proposal Schedule (BPS) at the cost of withdrawal indicated by him.</p> <p>d) If the Bidder refuses to withdraw, without any cost to the Purchaser, any deviation not listed in prescribed Deviation Schedules of BPS but found elsewhere in the Bid.</p> <p>e) In the case of a successful bidder, if the bidder fails within the specified time limit to furnish the acceptance of Letter of Award/Purchase Order.</p> <p>f) In the case of successful Bidder, if the Bidder fails, within the time limit, to furnish the required Contract Performance Guarantee/Security Deposit.</p>
<p>11.0</p>	<p>RELEASE OF EMD/ BID SECURITY</p>	<p>a) The Bid Security of all the unsuccessful Bidders shall be returned as promptly as possible, but not later than 1 month after expiration of bid validity. EMD shall not carry any interest. b) The Bid Security of the successful Bidder shall be returned once the successful Bidder has accepted the Letter of Award/ Purchase</p>

		Order and furnished the required Contract Performance Guarantee/Security Deposit in acceptable form.
12.0	INELIGIBILITY FOR FUTURE TENDERS	Notwithstanding the provisions regarding forfeiture of Bid Security specified above, if a bidder after having been issued the Letter of Award/Purchase order, either does not accept the order/Letter of award or does not sign the Contract Agreement or does not submit an acceptable Performance Security and which results in tender being annulled then such bidder shall be treated ineligible for participation in re-tendering of this particular package.
13.0	DOCUMENTS FOR QUALIFYING REQUIREMENTS	The bidder shall furnish documentary evidence in support of meeting the Qualifying Requirements stipulated in the Notice Inviting Tender (NIT) and Special Purchase Conditions (SPC).
14.0	TECHNICAL PROPOSAL	<p>a) To establish the conformity of the Goods and Related Services of the Bidding Document, the Bidder shall furnish as part of its Bid, the documentary evidence wherever applicable that the Goods and Related Services conform to the requirements specified.</p> <p>b) Apart from the technical requirements as stipulated in the bid documents, data sheets etc. the documentary evidence may be in the form of literature, drawings or data, and shall consist of a detailed item-by-item description of the essential technical and performance characteristics of the goods and related services, demonstrating substantial responsiveness of the goods and related services to those requirements. If applicable, a statement of deviations and exceptions to the provisions of technical specifications will be submitted by the bidder separately.</p>
15.0	PRICE PROPOSAL	<p>a) For preparation of the 'Price Proposal', Bidders are expected to take into account the requirements and conditions of the bidding documents. The Price Proposal shall be made in 'Bid Proposal Schedule', Volume S III of Bidding Documents.</p> <p>b) The rate quoted by the bidder shall be inclusive of all provisions for incidental expenses necessary for proper execution and completion of the work in accordance with the terms & condition of the bidding document.</p> <p>c) All prices to be quoted by the Bidders will be in Indian Rupees / USD / Euro on firm price basis and to remain valid during the term of the Contract.</p> <p>d) Bidders shall necessarily submit the prices in the enclosed format for BID Proposal Schedule only.</p>

		<p>e) The total prices arrived at in the 'Bid Proposal Schedule' - Schedule III & IV, are to be entered in the 'Price Bid Proposal Form'. These prices shall stand corrected as elaborated elsewhere in this document.</p>
16.0	DEVIATIONS / EXCLUSIONS SCHEDULE	<p>a) Bidders should generally agree to all the terms and conditions of the bid documents. However, deviation / exception / assumption, if any should be stated separately in the "Deviations / Exclusions Schedule" Schedule 2 of Volume S III and shall be submitted along-with " Bid Proposal", failing which it would be presumed that all terms and conditions are acceptable to them. In case the bidder has taken any deviation, the bidder must indicate the cost of withdrawal of the same in "Deviations / Exclusions Schedule".</p> <p>b) If there are no deviations, the "Deviations/Exclusions Schedule" shall be returned duly signed and stamped after stating "Nil Deviations".</p>
17.0	COST COMPENSATION FOR DEVIATIONS	<p>Deviations specifically declared by the bidders only in the Deviation Schedule of Bid Proposal Sheets will be taken into account for the purpose of evaluation. The bidders are required to declare the prices for the withdrawal of the deviations declared by them in the Deviation schedule. Such prices declared by the bidder for the withdrawal of the deviation in the Deviation Schedules shall be added to the bid price to compensate for these deviations. In case prices for withdrawal of deviations are not furnished by the bidder, SECI shall convert such deviations into Rupee (INR, as arrived on the day of opening of price BID) value and add to the bid price to compensate for these deviations. In determining the Rupee value of the deviations, SECI will use parameters consistent with those specified in the specifications and documents and/or other information as necessary and available to SECI. In case the bidder refuses to withdraw the deviations at the cost of withdrawal indicated by the bidder in the Deviation Schedule, the bid security of the bidder may be forfeited. Bidders may note that deviations, variations and additional conditions etc. found elsewhere in the bid other than those stated in the Deviation Schedules, save those pertaining to any rebates, shall not be given effect to in evaluation and it will be assumed that the bidder complies to all the conditions of Bidding Documents. In case bidder refuses to withdraw, without any cost to SECI, those deviations which the bidder did not state in</p>

		the Deviation Schedules, the bid security of the bidder may be forfeited.
18.0	FORMAT AND SIGNING OF BID	<p>a. The Bidder shall prepare one original of the documents comprising the Bid and clearly mark it “ORIGINAL.” In addition, the Bidder shall submit one copy of the Bid and clearly mark it as “COPY.” In the event of any discrepancy between the original and the copies, the original shall prevail.</p> <p>b. The original and copy of the Bid shall be typed or written in indelible Ink and shall be signed on all pages by the Bidder or the person (s) duly authorized to bind the bidder to the contract.</p> <p>c. All cuttings, erasures, or overwriting shall be signed or initialed by the person signing the Bid.</p>
19.0	SUBMISSION OF BID PROPOSAL	<p>a. Bidders are requested to submit offer / proposal in duplicate in separate envelopes comprising of</p> <p>TECHNO-COMMERCIAL BID</p> <p>Envelope-1... marked as ‘EMD’</p> <p>i) Bid Submission Form (Bid Form 1 of Vol. S I)</p> <p>ii) EMD/Bid Security</p> <p>iii) Acceptance Note/ Certificate (Certificate of acceptance) on company’s letter head stating the acceptance of terms & conditions of tender document.</p> <p>Envelope-2... marked as ‘Technical Bid’</p> <p>Technical Bid Form (Bid Form 1 of Vol. S I) Documents in support of meeting Qualifying Requirement with brief details of documents in Bid Form 1 of Vol. S I.</p> <p>Technical details & data sheets, drawings etc.</p> <p>Commercial Conditions</p> <p>Electronic Fund Transfer (EFT) Form (Annexure 7 of Vol. S I)</p> <p>Any additional literature in support of bid documents (please specify)</p> <p>Blanked price bid with complete list of deliverables with deviation statement</p> <p>PRICE BID</p> <p>Envelope-3.... marked as ‘Price Bid’</p> <p>Bid Price Schedule (Bid form Schedule III & IV of Volume S III) with complete list of deliverables in the attached price bid format</p> <p>Price Bid Proposal Form (Schedule I of Volume SIII)</p>

		<p>Statement of Deviations / Exclusions (Schedule 2 of Vol. SIII)</p> <p>Each envelope should be super scribed with details of NIT no., Due date of Opening (for Techno-commercial bid) & Content.</p> <p>b. All envelopes should be put in one sealed envelope super-scribed with NIT/ NIT no., date and BOD and the contents.</p> <p>c. The above envelopes should be addressed to</p> <p>Dr. Y.B.K. Reddy , Senior Manager (Solar, PV) Solar Energy Corporation of India, NBCC Plaza, Tower-1 IV Floor, Sector V, Saket, New Delhi 110017, India</p> <p><u>Above mentioned address is likely to change, bidders are requested to keep themselves updated regarding same through SECI's website www.seci.gov.in</u></p> <p>d. The prospective Bidders may arrange to hand deliver the sealed envelope at above address before the closing date and time. The Bidders may also send proposal by registered post / Speed post so as to reach above address before bid closing date and time.</p> <p>e. SECI will not be responsible for non delivery / late delivery of proposals.</p>
<p>20.0</p>	<p>MODIFICATION AND WITHDRAWAL OF BIDS</p>	<p>Modification or withdrawal of Bid once submitted is not permissible.</p>
<p>21.0</p>	<p>DEADLINE FOR SUBMISSION OF BIDS</p>	<p>a. Bids must be received by SECI at the address specified in this document or through latest update published on website www.seci.gov.in and not later than the date and time indicated in the NIT. (<u>As the current address is likely to change, bidders are requested to keep themselves updated regarding same through SECI's website www.seci.gov.in</u>)</p> <p>b. In the event of the specified date for submission of bids being declared a holiday for SECI, the bids will be received up to the appointed time on the next working day.</p> <p>c. SECI may, at its own discretion, extend the deadline for the submission of bids, in which case all rights &</p>

		obligations of owner and bidders will thereafter be subject to the dead line as extended.
22.0	LATE BIDS	SECI shall not consider any Bid that arrives after the deadline for submission of Bids.
23.0	BID OPENING	<p>SECI shall conduct the bid opening on the date & time mentioned in NIT. if there is any change in date of opening of BID same shall be intimated via notification on SECI's website www.seci.gov.in , prospective bidders are requested to keep themselves updated through website mentioned above. Bidder's representatives, may choose to be present themselves, at the address, date and time specified in the NIT.</p> <p>a. First envelope: Marked as "EMD" shall be opened for all the bidders. In case the instrument submitted as EMD and Certificate of acceptance of tender's Terms & conditions, are found in order, the Technical bid envelopes shall be opened.</p> <p>b. Second Envelop : All the valid Technical bid envelopes shall be opened on the prescribed date & time.</p> <p>c. Third Envelop: marked as 'Price Bid'</p> <p>The price bids meeting the criteria specified by SECI shall be opened separately under intimation to the concerned as specified in the Special Purchase Conditions (SPC).</p> <p>In case the instrument submitted as EMD not found in order, the remaining envelopes of the bid shall not be opened and the bid may be rejected as being non-responsive.</p>
24.0	DETERMINATION OF RESPONSIVENES	Prior to the detailed evaluation, SECI will determine whether the bid is of acceptable quality, is generally complete and is substantially responsive to the bidding document. For purpose of this determination, a substantially responsive bid is one that conforms to all the terms, conditions and specifications of the bidding documents without material deviations, objections, conditions or reservations material deviation, objection, conditions or reservations

		<p>(i) That effects in any substantial way the scope quality or performance of the contract.</p> <p>(ii) That limits in any substantial way inconsistent with the bidding document the employers right or the successful bidders obligation under the contract or</p> <p>(iii) Whose rectification would unfairly affect the competitive position of other substantially responsive bids.</p>
25.0	BID EVALUATION	SECI will determine whether the Proposals are substantially responsive to the Bidding Document and their proposal is complete. Material deficiencies in the proposal may render the proposal non-responsive and may lead to the rejection of the proposal
26.0	EVALUATION OF BIDS	<p>a) SECI shall evaluate each Bid that has been determined, up to this stage of the evaluation, to be substantially responsive.</p> <p>b) To evaluate a Bid, SECI shall only use all the criteria and methodologies defined in this document.</p> <p>c) To evaluate a Bid, SECI shall consider the following:</p> <ul style="list-style-type: none"> • the bid price as quoted as per Bid Price Schedule • price adjustment for correction of discrepancy / arithmetic errors; • price adjustment due to discounts offered; • cost compensation for deviations as per schedule 2, Volume S III of Bid Proposal schedule; and • price adjustment due to application of the evaluation criteria. <p>d) The evaluation criteria specified in Special Purchase Conditions (SPC) shall over-ride all other similar related clauses appearing elsewhere in the bid documents.</p>
27.0	DISCREPANCIES IN BID	<p>In case of discrepancies in bids, the following will be adopted to correct the discrepancies for the purpose of evaluation.</p> <p>a) In case of discrepancy between the original & copies of bid, the original bid will be considered as correct.</p> <p>b) In case of discrepancy between unit price in figures and words, the unit price words will be considered as correct.</p> <p>c) In case of discrepancy between unit price (rate) and total price (amount), the unit price will be considered as correct.</p> <p>d) In case of discrepancy between unit price and total price, which is obtained by multiplying the unit price and quantity, or between sub-totals and the total price, the</p>

		unit or subtotal price shall prevail, and the total price shall be corrected accordingly.
28.0	CLARIFICATION OF BIDS	During evaluation, SECI may, at their discretion, ask any Bidder for a clarification of its Bid. SECI's request for clarification and the response shall be in writing. No change in the prices or substance of the Bid shall be sought, offered, or permitted.
29.0	CONTACTING THE OWNER	a. Subject to GPC clause 28, no Bidder shall contact SECI on any matter relating to its bid, from the time of the opening of Bids to the time the contract is awarded (except in response to the clarification sought by SECI, if any). b. Any effort by a Bidder to influence SECI in SECI's bid evaluation, bid comparison or contract award decisions may result in rejection of the Bidder's bid.
30.0	OWNER'S (SECI) RIGHT TO ACCEPT ANY BID, AND TO REJECT ANY OR ALL BIDS	SECI reserves the right to accept or reject any Bid, and to annul the bidding process and reject all Bids at any time prior to Contract award, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder (s) of the grounds for the action.
31.0	AWARD CRITERIA	SECI will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and to be the lowest evaluated bid, further provided that the Bidder is determined to be qualified to perform the contract satisfactorily.
32.0	CONTRACT	a. SECI shall send to the successful Bidder the Purchase Order/Letter of Award. b. The contract shall come into effect from the date of issue of Letter of Award (LOA) /Purchase Order (PO). c. Successful bidder on whom Contract/LOA/Purchase Order is placed shall hereafter be called Supplier.
33.0	DELIVERY SCHEDULE	The Delivery of the Goods and Completion of the Related Services shall be in accordance with the Delivery and Completion Schedule in Technical Specification.
34.0	CONTRACT PRICE	The Contract Price shall be as specified in the Purchase Order / LOA.
35.0	SCOPE OF WORK	a. Civil Works: Construction of civil infrastructure of floor area approximately 500 sq. ft. to accommodate all the calibration & analysis equipments mentioned in Technical Specifications (Volume – S IV) Design of facility has to be such that it fulfils the development and functional requirements of the lab, i.e. proper accessibility to the rooftop, slabs or racks for

		<p>accommodating workstations and other equipments along with a separate room for appointed officials (around 4-5) and a small room (around 100 Sq ft) on roof top to accommodate operator with all electrical fittings. Contractor/bidder must also provide Mechanical Electrical Plumbing (MEP) facilities such as electrical power supply, air-conditioning, water supply, fire-fighting, sanitary & drainage etc. required for uninterrupted operation & maintenance of facility.</p> <p>b. The Goods and Related Services to be supplied shall be as specified in the technical specification and Price Schedule. The successful bidder shall supply all the Goods and Related Services included in the Scope of Supply, as per the Delivery and Completion Schedule specified.</p> <p>c. Unless otherwise stipulated in the Contract (Purchase Order / LOA), the Scope of Supply shall include all such items not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining Delivery and Completion of the Goods and Related Services as if such items were expressly mentioned in the Contract.</p> <p>d. The Supplier shall ensure that the Goods and Related Services comply with the technical specifications and other provisions of the Contract.</p> <p>e. The Goods and Related Services supplied under this Contract shall conform to the standards mentioned in Technical Specifications Volume S-II and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate.</p>
<p>36.0</p>	<p>CONTRACT PERFORMANCE GUARANTEE</p>	<p>a. Within thirty (30) days of the receipt of Purchase Order/Letter of Award from SECI, the Supplier shall furnish the Contract Performance Guarantee in the form acceptable to SECI for 5% value of the order</p> <p>b. Failure of the supplier to submit the above-mentioned Contract Performance Guarantee shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security.</p> <p>c. CPG may be submitted in any of the following forms:</p> <ul style="list-style-type: none"> • A Demand Draft/ Bankers cheque drawn in favour of Solar Energy Corporation of India, New Delhi. • An irrevocable Bank Guarantee as per the SECI standard format from any of the bank as per list enclosed in Annexure 6 of Volume S I.

		<p>d. The validity of the Contract Performance Guarantee (CPG) shall be for the period of 3 months extra than the last date of expiry of the warranty of 5 years.</p> <p>e. If the bank guarantee is issued by the foreign banks, same must be confirmed by it's local Indian branch or State bank of India.</p>
37.0	AUTHORISED REPRESENTATIVE	Any action required or permitted to be taken, and any document required or permitted to be executed, under the Contract by SECI or the Bidder may be taken or executed by the officials authorized for the purpose.
38.0	INSURANCE	The Bidder will be responsible for taking out any appropriate insurance coverage at their own cost as may be required for successful completion of the job.
39.0	FREIGHT	The Bidder will be responsible for safe delivery of material at their own cost. Therefore, the prices quoted must be inclusive of freight, insurance and taxes / duties. The prices shall be quoted on FOR site basis.
40.0	PACKING	The Bidder shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, handling and storage. The Bidder will be responsible for any loss or damage during transportation, handling and storage due to improper packing. All packages should be marked with Contract no. and date. Each package must contain packing slip and literature, if any.
41.0	INSPECTION AND TESTS	All materials shall be inspected as per provisions of Technical Specification Volume S IV . For all cases where pre-dispatch inspection is stipulated, materials shall be inspected prior to dispatch by an authorized representative of SECI for which an advance notice of 15 days shall be given by the supplier. In such cases no material shall be dispatched without inspection unless specific waiver/exemption is communicated in writing to the supplier. In all cases necessary test certificates, guarantee certificate in respect of material/equipment performance shall be furnished along with dispatch documents. However, the final inspection of material shall be done at our site only and acceptance of materials is subject to such final inspection only.
42.0	WARRANTY	<p>a) The Supplier shall warrant that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions.</p> <p>b) The warranty shall remain valid for the period specified in the Technical specifications.</p>

		<p>c) If having been notified, the Supplier fails to remedy the defect, SECI may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which SECI may have against the Supplier under the Contract.</p>
43.0	PATENTS	<p>All royalties and fees for patents covering material/equipment or processes used in executing the work shall be to the account of the bidder. The supplier shall satisfy all demands that may be made at any time for such royalties and fees.</p> <p>The Supplier shall hold harmless and indemnify SECI from and against damage, loss and expenses arising from any claim for infringement of patent, copy right, design and other such rights in existence or to be granted on and application published prior to the completion of this engagement with respect to or arising out of the use or supply of design or any work in accordance with the specifications and plans furnished or recommended by the Contractor.</p> <p>The Supplier shall promptly notify SECI in writing if the Supplier has or has acquired knowledge of any patent under which claim or suit for infringement could reasonably be brought because of the use by SECI of any information, recommendation or specifications, services rendered by the Contractor.</p> <p>The Supplier, in such case, shall furnish at its own cost make and furnish to SECI alternative specifications or recommendations to avoid the same and without putting SECI to any additional cost.</p>
44.0	INDEMNIFICATION	<p>The Supplier shall, at his own expense, defend and indemnify SECI against all third party claims of infringement of Intellectual Property Rights, including patent, trade mark, copy right, trade secret or industrial design rules arising from use of the products or any part thereof.</p> <p>The Supplier shall expeditiously extinguish any such claims and shall have full rights to defend itself there from. SECI shall not pay any compensation to a third party resulting from such infringement and the Supplier shall be fully responsible for the same, including all expenses and court and legal fees.</p> <p>SECI will give notice to the Supplier of any such claim without delay and shall provide reasonable assistance to the Contractor in disposing of the claim, and shall at</p>

		no time admit any liability for or express any intent to settle the claim. Final payment to the Supplier by SECI will not be made while any such suit or claim remains unsettled.
45.0	REMOVAL OF REJECTED GOODS AND REPLACEMENT	<p>a) If upon delivery, whether inspected and approved earlier or otherwise, the material/equipment is not in conformity with the specifications, the same shall be rejected by SECI or his duly authorized representative and notification to this effect will be issued to the Supplier normally within 30 days from the date of receipt of the material at site.</p> <p>b) The supplier shall arrange for removal of the rejected item(s) within 15 days from the date of notification. In the event , the supplier fails to lift the materials within the said 15 days, SECI shall be at liberty to dispose of such rejected item(s) in any manner as he may think fit. All expenses shall be recoverable from the supplier</p>
46.0	PAYMENT AT REDUCED RATES.	If the goods supplied are not according to specifications stipulated in the order, SECI may retain the goods at its discretion after negotiations with the supplier and pay at reduced rates to be fixed by SECI.
47.0	MODIFICATION OF CONTRACT	Modification of the terms and conditions of the Contract, including any modification of the Scope of the Services or of the Contract price may only be made by written agreement between the Parties.
48.0	LIQUIDATED DAMAGES	The timely delivery and installation of the material is the essence of the contract. In the event of supplier's failure to deliver and install the material of acceptable quality within the stipulated delivery period (as mentioned in clause 12 volume S IV), the liquidated damages are payable by the Bidder @ 0.5% (one half of one percent) per week of delay or part thereof, of the unexecuted order value. However, the total liability of the Bidder under this clause shall not exceed 5% of the Contract value as awarded.
49.0	FORCE MAJEURE	<p>(a) "Force Majeure" shall mean any event beyond the reasonable control of SECI or the Supplier, as the case may be, and which is unavoidable notwithstanding the reasonable care of the party affected.</p> <p>(b) If either party is prevented, hindered or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances there of within fourteen (14) days after the occurrence of such event.</p>

		<p>(c) The party who has given such notice shall be excused from the performance or punctual performance of its obligations under the Contract for so long as the relevant event of Force Majeure continues and to the extent that such party's performance is prevented, hindered or delayed. The Time for Completion shall be extended by a reasonable time.</p> <p>(d) The party or parties affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect there of upon its or their performance of the Contract and to fulfill its or their obligations under the Contract, but without prejudice to either parties' right to terminate the contract under clause (f) here under.</p> <p>(e) No delay or non-performance by either party hereto caused by the occurrence of any event of Force Majeure shall</p> <ul style="list-style-type: none"> i. Constitute a default or breach of the Contract ii. Give rise to any claim for damages or additional cost or expense occasioned thereby If and to the extent that such delay or non-performance is caused by the occurrence of an event of Force Majeure. <p>(f) If the performance of the Contract is substantially prevented, hindered or delayed for a single period of more than sixty (60) days or an aggregate period of more than one hundred and twenty (120) days on account of one or more events of Force Majeure during the term of the Contract, the parties will attempt to develop a mutually satisfactory solution, failing which the dispute shall be resolved in accordance with Clause 53.0 of Volume- S I (GPC).</p> <p>(g) Notwithstanding clause (e) above, Force Majeure shall not apply to any obligation of SECI to make payments to the Supplier herein.</p>
50.0	NO BREACH OF CONTRACT	<p>The failure of a party to fulfill any of its obligations under the Contract shall not be considered to be a breach of or default under the Contract in so far as such inability arises from an event of Force Majeure, provided that the Party affected by such an event has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract and has informed the other Party as soon as possible about the occurrence of such an event.</p>
51.0	OBLIGATIONS OF THE BIDDER	<p>The Bidder shall perform the Services and carry out their obligations with all due diligence, efficiency, and economy, in accordance with generally accepted</p>

		professional techniques and practices, and shall observe sound management practices, and employ appropriate advance technology and safe methods. The Bidder shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to SECI and shall at all times support and safeguard SECI's legitimate interests in any dealings with Sub-bidder or third parties.
52.0	RISK PURCHASE	In the event of Suppliers failure to supply the material of acceptable quality in scheduled delivery period, SECI reserves the right to procure the materials from any other source at the Suppliers risk and cost and the difference in cost shall be borne by the Supplier. Further, SECI shall retain the right of forfeiture of CPG and or any other action as deemed fit.
53.0	ARBITRATION AND SETTLEMENT OF DISPUTES	If any dispute(s) or difference(s) of any kind whatsoever arise between the Parties hereto in connection with or arising out of this Contract, the Parties hereto shall negotiate with a view to its amicable resolution and settlement. In the event no amicable resolution or settlement is reached within a period of thirty (30) days from the date on which the dispute(s) or difference(s) arose, such dispute(s) or differences shall be referred to and settled by sole arbitration of the MD Solar Energy Corporation of India, New Delhi or his nominee whose decision shall be final and binding for both the parties. The existence of any dispute(s) or difference(s) or the initiation or continuance of the arbitration proceedings shall not permit the Parties to postpone or delay the performance by the parties of their respective obligations pursuant to this Contract. The venue of the arbitration shall be New Delhi, India.
54.0	NOTICES	Any notice, request, or consent sought pursuant to the tender shall be in writing and shall be deemed to have been made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent by speed post, telex, telegram, or facsimile to such Party i.e. Owner or Bidder.
55.0	TERMINATION	SECI may terminate the Contract, by not less than thirty(30) days' written notice of termination to the Supplier to be given after the occurrence of any of the events specified in paragraphs(a) to (d) of this Clause and sixty(60) days' in the case of the event referred to in (e) below :

		<p>(a) if the Supplier does not remedy a failure in the performance of their obligations under the Contract, within thirty(30) days after being notified or within any further period as SECI may have subsequently approved in writing;</p> <p>(b) if the Supplier becomes insolvent or bankrupt;</p> <p>(c) if as a result of Force Majeure, the Supplier is unable to perform a material portion of the Services for a period of not less than sixty(60) days; or</p> <p>(d) if the Supplier, in the judgment of SECI has engaged in corrupt or fraudulent practices in completing or in executing the Contract. For the purpose of this clause: “Corrupt Practice” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the selection process or in contract execution. “Fraudulent Practice” means a misrepresentation of facts in order to influence a selection process or the execution of a contract to the detriment of SECI.</p> <p>(e) If SECI, at its sole discretion, decides to terminate this Contract.</p>
56.0	TAXES & DUTIES	<p>a. The prices shall be inclusive all the custom duty & excise duties leviable. <i>However the percentage and or amount of duty may be shown separately in each Item/Case.</i></p> <p>b. The sales tax and service tax should be clearly mentioned in the price offer along with the % of the rate applicable. The sales tax and service tax will not be considered for bid evaluation.</p> <p>c. Octroi shall be reimbursed at actual and shall not be considered for bid evaluation.</p> <p>d. For the purpose of the contract it is agreed that the contract price specified in BID Proposal Schedule is based on the taxes duties and charges prevailing at seven (7) days prior to the last date of bid submission date. Bidders are requested to provide the breakup of taxes in the BID Proposal Schedule prevailing at seven (7) days prior to the last date of bid submission date.</p> <p>e. If any rates of tax are increased or decreased, a new tax is introduced, an existing tax is abolished, or any change in interpretation or application of any tax occurs in the course of the performance of contract, which was or will be accessed on the bidder in connection with performance of the</p>

		<p>contract, an equitable adjustment of the contract price shall be made to fully take into account any such change by addition to the contract price or deduction there from as the case may be.</p> <p>f. If provision exists & bidder applies for availing concessional rate of Custom Duty / Excise Duty required form/letter may be issued by SECI/MNRE after submission of necessary documents by the bidder.</p>
57.0	ROAD PERMIT	<p>The request letter for issue of road permit shall be made available to the suppliers by SECI wherever required, after providing relevant details of vehicle & goods to be transported, Bidder must not carry any good apart from what intimated to SECI in the vehicle for which SECI has issued the request letter. Bidder must furnish all the relevant details at least seven (7) working days in advance to the actual date of transit/transport. Contractor to indemnify the SECI with respect to any infringement transport/ civil/criminal law in transport of good & services for which SECI has issued the request letter for road permit.</p>
58.0	TAX DEDUCTION AT SOURCE	<p>Tax deduction at source (TDS) shall be governed as per prevailing rules of government of India.</p>
59.0	PAYMENTS TO THE BIDDER	<p>Payment will be made to the account of the bidder and according to the payment terms stated hereunder based on the certification of Engineer In Charge / principal Investigator. The payments shall be made after the conditions listed for such payment have been met, and the Bidder has submitted an invoice to SECI specifying the amount due. Payment shall be released within 30 days of receipt of invoice complete in all respect as per Payment terms mentioned in SPC.</p>
60.0	JURISDICTION	<p>Notwithstanding any other court or courts having jurisdiction to decide the question(s) forming the subject matter of the reference if the same had been the subject matter of a suit, any and all actions and proceeding arising out of or relative to the contract (including any arbitration in terms thereof) shall lie only in the Court of Competent Civil jurisdiction in this behalf at New Delhi and only the said Court(s) shall have jurisdiction to entertain and try any such action(s) and/or proceeding(s) to the exclusion of all other Courts.</p>

<p>61.0</p>	<p>LIMITATION OF LIABILITY</p>	<p>Except in cases of criminal negligence or willful misconduct,</p> <p>(a) the Contractor shall not be liable to the Employer, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Contractor to pay liquidated damages to the Employer and</p> <p>(b) the aggregate liability of the Contractor to the Employer, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to any obligation of the Contractor to indemnify the Employer with respect to patent infringement. In the event of directives / order from Government organizations like Excise Duty/Sales Tax/Service Tax/Professional Tax/Entry Tax /Local Tax authorities, the bidder hereby agrees to pay and SECI shall recover such sums as directed by the authorities and remit the same to them under intimation to the suppliers.</p>
--------------------	--------------------------------	---

On Bidder's letter head

Bid Form 1

TECHNICAL AND COMMERCIAL BID SUBMISSION FORM

To

Senior Manager (Solar, PV)
Solar Energy Corporation of India
NBCC Plaza, Tower-1 IV Floor
Sector V, Saket, New Delhi 110017, India

Dear Sir,

We hereby submit our bid for “.....”
for SECI, New Delhi as outlined in your bidding document. We have understood the instructions and the terms and conditions mentioned in the bidding documents furnished by you and have thoroughly examined the detailed scope of work laid down by you and are fully aware of nature and scope of work required.

- We hereby confirm our acceptance and compliance to the provisions and terms and conditions contained in the bidding documents.
- We declare that the work will be executed strictly in accordance with the requirement.
- Our proposal shall remain valid for acceptance for a period of 180 days from the date of opening of the 'Technical BID' by SECI.
- We confirm that the prices quoted by us in the 'Price Bid' are firm and shall not be subject to any variation for the entire period of the contract.
- We confirm that the prices quoted by us in the 'Price Bid' are detailed with all taxes, duties and levies payable by us.
- We hereby furnish our 'Technical and Commercial Bid' comprising all the documents mentioned in clause-19 of GPC Vol S-I.
- Our Priced Bid is being submitted in a separate sealed envelope as per the requirement of Volume S I of the Bidding Documents.

- We confirm that the details of deviations and exclusions (clause wise) taken by us with reference to bidding documents provisions, along with justification for the work not covered in our offer in deviations / exclusions schedule and the cost towards withdrawals of these deviations / exclusions are given in Schedule-2. of Volume - III (Statement of Deviation / Exclusion).

Yours truly,

Date.....

Place.....

Signature.....

Name.....

Designation

Annexure 1

**Manufacturer's Authorization
On the letter head**

To

Senior Manager (Solar, PV)
Solar Energy Corporation of India
NBCC Plaza, Tower-1 IV Floor
Sector V, Saket, New Delhi 110017, India

Sub: **Letter of Authorization**

Ref : Notice Inviting Tender No.: **dated**

For (Name of the tender).....

Dear Sir,

We hereby confirm that:

- a) We are the manufacturers of
- b) M/s _____ (Name of Bidder) _____(Address)_____ are authorized to supply the (se) item (s) to you.
- c) They shall supply and provide allied support & subsequent maintenance services during the currency of the contract.
- d) we extend our full guarantee and warranty with respect to the Goods offered by the above firm in reply to this NIT and subsequent maintenance, supply of spares & services in the event of award of contract
- e) In the event of their failure to perform any of the activities detailed above w.r.t products manufactured & supplied by us we undertake to arrange to perform the same, without any additional financial implication to SECI.

Signature: _____

Name: _____

Designation: _____

Company's Name and Seal.

Annexure 3

PROFORMA OF BANK GUARANTEE FOR BID SECURITY

Bank Guarantee No.....

Date:

Senior Manager (Solar, PV)
Solar Energy Corporation of India
NBCC Plaza, Tower-1 IV Floor
Sector V, Saket, New Delhi 110017, India

Dear Sirs,

In accordance with your NIT No.dated
.....M/s.....(***)..... having its registered/Head Office at
.....(hereinafter called the 'Bidder') wish
to participate in the said Bid for(name of tender).....

As an irrevocable Bank Guarantee against Bid Security for an amount of(*)
..... valid for days from(**), is required to be
submitted by the Bidder as a condition precedent for participation in the said bid, which
amount is liable to be forfeited on the happening of any conditions mentioned in the Bidding
Documents against forfeiture of EMD/Bid Security.

We, the[Name and address of the Bank..... having our
head office at guarantee and undertake to pay immediately on
demand by Solar Energy Corporation of India (hereinafter called 'SECI') the amount
.....(*)..... (in figures and words) without any reservation, protest,
demand and recourse. Any such demand made by SECI shall be conclusive and binding on us
irrespective of any dispute or difference raised by the Bidder or anyone.

This guarantee shall be irrevocable and shall remain valid up to If
any further extension of this guarantee is required, the same shall be extended to such required
period (not exceeding one year) on receiving instructions from M/s[Bidders
name]..... on whose behalf guarantee is issued.

In witness whereof the Bank, through its authorized officer has set its hand and stamp
on this Day of20..... at

Witness

Signature.....

Designation.....

Bank's Common Seal.....

Power of Attorney No.....Official Address

Annexure-4

LIST OF BANKS WHO'S BG IS ACCEPTABLE – FOR BID SECURITY – EMD

1. SCHEDULED COMMERCIAL BANKS	2. OTHER PUBLIC SECTOR BANKS
SBI AND ASSOCIATES	1. IDBI Bank Ltd.
1. State Bank of India	3. FOREIGN BANKS
2. State Bank of Bikaner & Jaipur	1. Bank of America NA
3. State Bank of Hyderabad	2. Bank of Tokyo Mitsubishi UFJ Ltd.
4. State Bank of Indore	3. BNP Paribas
5. State Bank of Mysore	4. Calyon Bank
6. State Bank of Patiala	5. Citi Bank N.A.
7. State Bank of Travancore	6. Deutsche Bank A.G
NATIONALISED BANKS	7. The HongKong and Shanghai Banking Corpn. Ltd.
1. Allahabad Bank	8. Standard Chartered Bank
2. Andhra Bank	9. Societe Generale
3. Bank of India	10. Barclays Bank
4. Bank of Maharashtra	11. ABN Amro Bank N.V.
5. Canara Bank	12. Bank of Nova Scotia
6. Central Bank of India	13. Development Bank of Singapore (DBS, Bank Ltd.)
7. Corporation Bank	4. SCHEDULED PRIVATE BANKS
8. Dena Bank	1. Federal Bank Ltd.
9. Indian Bank	2. ING Vysya Bank Ltd.
10. Indian Overseas Bank	3. Axis Bank Ltd.
11. Oriental Bank of Commerce	4. ICICI Bank Ltd.
12. Punjab National Bank	5. HDFC Bank Ltd.
13. Punjab & Sind Bank	6. Yes Bank Ltd.
14. Syndicate Bank	
15. Union Bank of India	
16. United Bank of India	
17. UCO Bank	
18. Vijaya Bank	
19. Bank of Baroda	

Annexure 5

PROFORMA FOR BANK GUARANTEE FOR CONTRACT PERFORMANCE

Bank Guarantee No.....

Date:

To

Senior Manager (Solar, PV)
Solar Energy Corporation of India
NBCC Plaza, Tower-1 IV Floor
Sector V, Saket, New Delhi 110017, India

Dear Sir,

In consideration of the SECI, (hereinafter referred to as the 'Purchaser' which expression shall unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having awarded to M/s with its Registered/Head Office at(hereinafter referred to as the 'Seller' which expression shall unless repugnant to the context or meaning thereof, includes its successors, administrators, executors & assigns) a Contract by issue of Purchaser's Purchase Order No..... dated and the same having been unequivocally accepted by the seller resulting in a 'Contract' valued at for(scope of work/contract) and the seller having agreed to provide a contract performance guarantee of the faithful performance of the entire contract equivalent to five percent (5%) of the said value of the contract to the purchaser.

We,(Name & Address of Bank) having our Head Office at(hereinafter referred to as the 'Bank' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors & assigns), do hereby guarantee and undertake to pay the Purchaser, on demand any and all money payable by the Seller to the extent of as aforesaid at any time up to..... (*)without any demur, reservation contest, recourse, or protest and/or without any reference to the Seller. Any such demand made by the Purchaser on the Bank shall be conclusive and binding notwithstanding any difference between the Purchaser and Seller or any dispute pending before any court Tribunal, Arbitrator or any other Authority. The bank undertakes not to revoke this guarantee during its currency without previous consent of the purchaser and further agrees that this guarantee herein contained shall continue to be enforceable till the purchaser discharges this guarantee.

The Purchaser shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee, from time to time to extend the time for performance of Contract by the Seller. The Purchaser shall have the fullest liberty, without affecting this guarantee to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Seller, and to exercise the same at any time in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied in the contract between the Purchaser and the Seller or any other course of remedy or security available to the Purchaser. The Bank shall not be released of its obligations under these presents by any exercise by the Purchaser of its liberty with reference to the matters aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the purchaser or any other indulgence shown by the Purchaser or by any other matter or thing whatsoever which under law would, but for this provision, have the effect of relieving the Bank.

The Bank also agrees that the purchaser at its option shall be entitled to enforce this guarantee against the bank as a principal debtor, in the first instance without proceeding against the seller and notwithstanding any security or other guarantee that the purchaser may have in relation to the seller's liabilities.

Notwithstanding anything contained hereinabove our liability under this guarantee is restricted toand it shall remain in force up to and including(*)..... and shall be extended from time to time for such period (not exceeding one year), as may be desired by M/s..... on whose behalf this guarantee has been given.

Dated thisday of20.....at
.....

WITNESS

1) SIGNATURE

NAME

OFFICIAL ADDRESS

BANK'S COMMON SEAL

Annexure-6

LIST OF BANKS WHO'S BG IS ACCEPTABLE FOR CPG

1. SCHEDULED COMMERCIAL BANKS	2. OTHER PUBLIC SECTOR BANKS
SBI AND ASSOCIATES	1. IDBI Bank Ltd.
1. State Bank of India	3. FOREIGN BANKS
2. State Bank of Bikaner & Jaipur	1. Bank of America NA
3. State Bank of Hyderabad	2. Bank of Tokyo Mitsubishi UFJ Ltd.
4. State Bank of Indore	3. BNP Paribas
5. State Bank of Mysore	4. Calyon Bank
6. State Bank of Patiala	5. Citi Bank N.A.
7. State Bank of Travancore	6. Deutsche Bank A.G
NATIONALISED BANKS	7. The HongKong and Shanghai Banking Corpn. Ltd.
1. Allahabad Bank	8. Standard Chartered Bank
2. Andhra Bank	9. Societe Generale
3. Bank of India	10. Barclays Bank
4. Bank of Maharashtra	11. ABN Amro Bank N.V.
5. Canara Bank	12. Bank of Nova Scotia
6. Central Bank of India	13. Development Bank of Singapore (DBS, Bank Ltd.)
7. Corporation Bank	4. SCHEDULED PRIVATE BANKS
8. Dena Bank	1. Federal Bank Ltd.
9. Indian Bank	2. ING Vysya Bank Ltd.
10. Indian Overseas Bank	3. Axis Bank Ltd.
11. Oriental Bank of Commerce	4. ICICI Bank Ltd.
12. Punjab National Bank	5. HDFC Bank Ltd.
13. Punjab & Sind Bank	6. Yes Bank Ltd.
14. Syndicate Bank	
15. Union Bank of India	
16. United Bank of India	
17. UCO Bank	
18. Vijaya Bank	
19. Bank of Baroda	

Annexure 7

E.F.T.Form

Bidders Name and Address:

To

Senior Manager (Solar, PV)
Solar Energy Corporation of India
NBCC Plaza, Tower-1 IV Floor
Sector V, Saket, New Delhi 110017, India

Dear Sir,

We, hereby authorize SECI to make all our payments through Electronic Fund Transfer System. The details for facilitating the payments are given below:

(TO BE FILLED IN CAPITAL LETTERS)

- 1. NAME OF THE BENEFICIARY**
- 2. ADDRESS**
- 3. PIN CODE**
- 4. TELEPHONE NO. (WITH STD CODE)**

BANK PARTICULARS

- A) BANK NAME**
- B) BANK TELEPHONE NO. (WITH STD CODE)**
- C) BRANCH ADDRESS**
- D) PIN CODE**
- E) BANK FAX NO (WITH STD CODE)**
- F) BRANCH CODE**

G) 9 DIGIT MICR CODE OF THE BANK BRANCH (ENCLOSE COPY OF A CANCELLED CHEQUE)

H) BANK ACCOUNT NUMBER

I) 11 DIGIT IFSC CODE OF THE BANK BRANCH

K) BANK ACCOUNT TYPE (TICK ONE)

**SAVING CURRENT LOAN CREDIT OTHERS
IF OTHERS, SPECIFY**

5. PERMANENT ACCOUNT NUMBER (PAN, enclose copy)

6. E-MAIL Address for Intimation regarding release of payments

I/We hereby declare that the particulars given above are correct and complete. If the transaction is delayed or credit is not affected at all for reasons of incomplete or incorrect information, I/We would not hold SECI responsible.

SIGNATURE

**DATE
(AUTHORISED SIGNATORY)**

Name:

OFFICIAL STAMP

BANK CERTIFICATION:

It is certified that above mentioned beneficiary holds a bank account no.....with our branch and the Bank particulars mentioned above are correct.

DATE
SIGNATURE
(AUTHORISED SIGNATORY)

Name:

Authorisation no.:

OFFICIAL STAMP

Special Purchase Conditions (SPC) Volume – S II

NIT: SECI/SOLAR/PV/R&D/13-14/001

Turnkey Supply (Including Air Freight, Insurance, Customs Clearance in India, Local Transportation to National Institute of Solar Energy Gwal Pahari Gurgaon, subsequent transportation to the site with Transit Insurance, Civil works), Installation, Commissioning and Maintenance of Calibration lab along with Instruments for calibration of Measuring Instruments for Solar Radiation and other meteorological parameters at National Institute of Solar Energy, Gwal Pahari Gurgaon.

SPECIAL PURCHASE CONDITIONS

1.	BIDDING TYPE	TWO BID SYSTEM (TECHNICAL BID & PRICE BID)
2.	ELIGIBILITY	Only Vendors who fulfill the qualifications mentioned in "Qualification Requirements (QR)" of the tender are eligible to participate in the tender.
3.	CURRENCY	The offer can be submitted in INR/USD/EURO for the tender.
4.	PRICES	Prices shall remain firm till completion of contract except for taxes as stipulated in Instructions to Bidders. Prices quoted in USD/EURO shall be converted into INR as per State Bank of India (SBI) Selling Rate/ T.T. Selling rate on the date of opening of financial BID
5.	BID VALIDITY	Bid shall remain valid for the period of 180 days from the date of opening of technical bids.
6.	EARNEST MONEY DEPOSIT (EMD) / BID SECURITY	The Bidder shall furnish, as a part of his Bid a Bid Security in the amount of Rs. 12,00,000 /- (Rupees twelve Lakh only) or USD 20,000 /- in the form of DD/Pay Order drawn in favour of "Solar Energy Corporation of India" payable at New Delhi, India in a separate envelope, super scribed on the top as under. In case of Bank Guarantee and same should be valid for 225 days from the date of Bid Opening.
7.	EVALUATION CRITERIA	Evaluation of the equipment shall be carried out as referred herein under. <ul style="list-style-type: none"> • Evaluation shall be done on Total Solution basis. • BID Price shall mean the total package price of all items listed in the BID PRICE BID for its complete scope of Work. • TOTAL COST of individual equipment arrived after arithmetical corrections including concessional import Duties, excise duties, freight & insurance as indicated by the suppliers will be considered for the purpose of evaluation. • The cost compensation, if any, as per Schedule-II of Volume-S III of BID Proposal Schedule because of deviation taken by Bidder or Scope Deficiency as applicable will also be taken into account for the purpose of evaluation. • For evaluation purpose, the foreign currency prices will be converted to Indian Rupees at the State Bank of India (SBI) Selling Rate/ T.T. Selling rate conversion rate as applicable on the date of opening of the price bid. • Octroi shall not be considered for evaluation but shall be reimbursed at actual against documentary proof. • The sales tax and service tax will not be considered for bid evaluation. • The cost of optional items shall not be considered for the purpose of bid evaluation unless the optional

		equipments or items is required to be the part of the main equipment to comply to the RFP technical requirements.
8.	PAYMENT TERMS	80 % payment on Supply (of instruments & sensors) shall be made within 30 days after receipt and acceptance of respective materials at site. 10% payment on successful installation and demonstration. Balance 10% to be paid after the warrantee period or against bank guarantee valid for three months beyond the warranty period. For Civil works 80% payment will be released after completion of civil works in all respect. 10% will be paid after successful integration of lab facility with the calibration instruments & balance 10% to be paid after the warrantee period or against bank guarantee valid for three months beyond the warranty period.
9.	Billing / Import Documents	Following documents are to be submitted for payments. 1. Original invoice – 6 copies 2. Guarantee & Warranty Certificate. 3. Packing List - 2 copies 4. Certificate of compliance 5. Airway Bill.HAWB/MAWB/SAWB. 6. Certificate of Country of Origin issued by chambers of commerce in respective countries in duplicate. 7. Insurance premium paid receipt Indigenous Suppliers are to furnish documents 1 to 4
10.	Bid Price	Bids must represent total value for the entire requirement. The prices quoted by Bidders should be F.O.R. destination at site inclusive of all duties, taxes, levies, transport, transit insurance, installation, loading etc. The shipment from the foreign port / Airport to New Delhi , custom clearance, insurance and door delivery at the store of SECI New Delhi , Subsequent transshipment to the site at National Institute of Solar Energy, Gurgaon (Haryana), transit insurance, unloading at site, safeguarding equipment at site till installation, commissioning and satisfactory demonstration is responsibility of the bidder. Bidding company must quote their prices inclusive of all the conditions mentioned above and any deviation from same shall make their bid non-responsive and liable for rejection.
11.	Taxes & Duties Applicable	<ul style="list-style-type: none"> Indian Bidders must indicate the current rate of <i>excise duty and sales tax / VAT applicable in India.</i> <i>In case vendor has indicated 0(Zero) tax, same shall be treated as included in the base price.</i>

		<ul style="list-style-type: none"> In the event of any TAX is indicated as included, the bidders are advised to indicate the % separately for considering any change at future date. In case same is not indicated, no claim shall be entertained by SECI at later date when the statutory levies are revised upwards. Octroi/ Entry Tax levied by some state governments shall not be considered for evaluation. However same shall be reimbursed at actual if applicable against documentary evidences in case of award. 															
12.	WARRANTY	The warranty period for the equipments supplied shall be 5 years comprehensive.															
13.	INSTRUCTIONS FOR FOREIGN BIDDERS																
	01	The shipment from the foreign airport / port to New Delhi, custom clearance, insurance and door delivery at the store of SECI New Delhi , Subsequent transshipment to the site at National Institute of Solar Energy Gurgaon (Haryana), transit insurance, unloading at site, safeguarding equipment at site till installation, commissioning and satisfactory demonstration is responsibility of the bidder / vendor / service provider.															
	02	The prices shall be in INR/USD/EURO only and exchange rate applicable on the date of price bid opening shall be considered.															
	03	The prices shall be firm and free from corrections and erasures.															
	04	The OFFER shall be valid for 180 days from the date of Bid Opening.															
	05	Quotation shall be submitted in English Language only.															
	06	Delivery period shall be firm and clearly indicated in the Quotation In case of urgency early deliveries may be requested by the buyers.															
	07	Approximate Gross and Net weight each item shall be indicated in the Quotation.															
	08	Packing shall be transport-worthy to withstand Sea/Road/Rail/Handling Transport to ensure safe delivery considering the nature of goods.															
	09	Name of Foreign Banker, Advising Banker, Swift Code, IBAN No., Bank Code. Bank A/c No., Bank Register No., ABA No. Country of Origin, port of Shipment should be indicated in the Quotation (Bid Price Schedule)															
	10	Indian Agency Commission payable, if any, shall invariably be included in the FOB / FCA price / percentage of Commission shall be clearly mentioned along with the name and address of Indian Agency. A copy of agreement with Indian Agency shall be furnished along with the Quotation. The Indian Agency commission shall be paid in Indian Rupees direct to Indian Agents against their bill in duplicate along with 80% payment mentioned under payment Terms.															
	11	Indian Agency Commission (IAC), if any, shall be paid in Indian rupees only, subject to the following maximum quantum as per Govt. of India guidelines :-															
		<table border="1"> <thead> <tr> <th>SL. No.</th> <th>PO VALUE RANGE (IN Rs.)</th> <th>% OF IAC</th> </tr> </thead> <tbody> <tr> <td>A)</td> <td>Up to '500,000/-</td> <td>10%</td> </tr> <tr> <td>B)</td> <td>'500,000/- to 1,000,000/-</td> <td>7.5%</td> </tr> <tr> <td>C)</td> <td>'1,000,000/- to '2,500,000/-</td> <td>5%</td> </tr> <tr> <td>D)</td> <td>Over Rs. 2,500,000/-</td> <td>2%</td> </tr> </tbody> </table>	SL. No.	PO VALUE RANGE (IN Rs.)	% OF IAC	A)	Up to '500,000/-	10%	B)	'500,000/- to 1,000,000/-	7.5%	C)	'1,000,000/- to '2,500,000/-	5%	D)	Over Rs. 2,500,000/-	2%
SL. No.	PO VALUE RANGE (IN Rs.)	% OF IAC															
A)	Up to '500,000/-	10%															
B)	'500,000/- to 1,000,000/-	7.5%															
C)	'1,000,000/- to '2,500,000/-	5%															
D)	Over Rs. 2,500,000/-	2%															
		The ceiling limits shall have to be strictly adhered to and any deviation there from shall not be acceptable.															

12	SECI would prefer to deal directly with the foreign supplier. In case the Tender enquiry is forwarded to Indian Agent /Distributor, SECI shall be informed of the same. The Quotation from Indian Agency/Distributor shall be accepted subject to following :- a) The quotation is submitted in accordance with above instructions along with copy of Agreement with their Principal. b) Quotation submitted by Agent/Distributor for and on behalf of the Principal, be supported with Authority from the Principal Power of Attorney in favour of Indian Agent duly Notarized (Annexure -1). c) In the event of Quotation submitted in Indian Rupees, Principal's price list, applicable Custom duty and Countervailing duty (if any) with specific reference clause and base Exchange Rate is to be furnished.	
13	The letter of Credit shall allow complete shipments or Transshipments in 1 lot within a span of 6 months.	
14	VALIDITY OF LETTER OF CREDIT The Irrevocable Letter of Credit to be opened through the Purchaser's bank, shall normally be kept valid for a period of 90 days. The Letter of Credit shall be opened upon intimation from the supplier about the expected date of dispatch of material. Normally extension of validity of Letter of Credit will not be allowed unless requested on good and grounds. However the extra charges are to be borne by Supplier.	
15	Bidders should note that the exchange rate applicable on the Price Bid Opening date shall be considered for Evaluation purposes.	
16	The foreign suppliers should ensure separate and proper packing with moisture proof polythene wrapper (with due indications) for each item of equipment to withstand transportation hazards involved in Cargo Handling at the Air Ports / rough road transportation / Railway Goods Shed Handling.	
17	The warranty period for the equipments supplied shall be 5 years comprehensive.	
14	CONTACT PERSONS	Senior Manager (Solar, PV)
	Address	Solar Energy Corporation of India NBCC Plaza, Tower-1 IV Floor Sector V, Saket, New Delhi 110017, India <u>*Above mentioned address is likely to change, bidders are requested to keep them updated regarding same through SECI's website www.seci.gov.in</u>
	Telephone	011-71989230
	Fax	011-71989241
	Email-ID	solarpv@seci.gov.in

Bid Proposal Schedule (BPS) Volume – S III

NIT: SECI/SOLAR/PV/R&D/13-14/001

Turnkey Supply (Including Air Freight, Insurance, Customs Clearance in India, Local Transportation to National Institute of Solar Energy Gwal Pahari Gurgaon, subsequent transportation to the site with Transit Insurance, Civil works), Installation, Commissioning and Maintenance of Calibration lab along with Instruments for calibration of Measuring Instruments for Solar Radiation and other meteorological parameters at National Institute of Solar Energy, Gwal Pahari Gurgaon.

SCHEDULE - 1 of Volume – S III

BID SUBMISSION FORMAT

To,

Senior Manager (Solar, PV)
Solar Energy Corporation of India
NBCC Plaza, Tower-1 IV Floor
Sector V, Saket, New Delhi 110017, India

Dear Sir,

Turnkey Supply (Including Air Freight, Insurance, Customs Clearance in India, Local Transportation to National Institute of Solar Energy Gwal Pahari Gurgaon, subsequent transportation to the site with Transit Insurance, Civil works), Installation, Commissioning and Maintenance of Calibration lab along with Instruments for calibration of Measuring Instruments for Solar Radiation and other meteorological parameters at National Institute of Solar Energy, Gwal Pahari Gurgaon., as outlined in your bidding documents.

We have understood the instructions and the terms and conditions mentioned in the bidding documents furnished by you and have thoroughly examined the detailed scope of work laid down by you and are fully aware of nature and scope of work required. We hereby confirm our acceptance and compliance to the provisions and terms and conditions contained in the bidding documents. We declare that the work will be executed strictly in accordance with the requirement.

We hereby furnish our Technical & Commercial Proposals comprising of following:

Our proposal shall remain valid for acceptance for a period of 180 days from the date of opening of the 'Technical Bid' by SECI.

We declare that the following are our prices in Indian Rupees/foreign Currency on firm price basis for the entire scope of work detailed in Bidding Documents.

Total price for the entire scope of WORK

i) In figures _____

ii) In words _____

We declare that the above quoted prices are firm and shall not be subject to any variation for the entire period of the contract. We further declare that the above quoted prices include all taxes, duties and levies payable by us.

We have given details of deviations and exclusions (clause wise) taken with reference to bidding documents provisions, along with justification for the work not covered in our offer in deviations / exclusions schedule and the cost towards withdrawals of these deviations / exclusions.

Date Signature.....

Place Name

Designation Common Seal

SCHEDULE - 2 of Volume – S III
DEVIATIONS /EXCLUSIONS SCHEDULE

Name and Address

To

Senior Manager (Solar, PV)
 Solar Energy Corporation of India
 NBCC Plaza, Tower-1 IV Floor
 Sector V, Saket, New Delhi 110017, India

Sub: SECI NIT Ref:dated

Dear Sir,

We declare that the following are the only deviations and variations and exceptions/exclusions to the services as outlined in your Bidding Documents. The Schedule has been filled in accordance with the Bidding Documents. Except these deviations, subject to the approval and acceptance by SECI the entire work shall be performed as per your requirements and bidding documents. Further, we agree that additional conditions, if any found elsewhere in the offer other than those stated below, save that pertaining to any rebates / discounts offered, shall not be given effect to :

Serial No.	Clause No.	Page No.	Statement of Deviations & Variations / Exclusions	Cost of Withdrawal of Deviations and Variations / Exclusions

Date
 Place

Signature
 Name
 Designation
 Common Seal

Note: The bidder may use additional sheets of like size and format, if required

SCHEDULE III

PRICE BID INDIGENOUS EQUIPMENTS - INDIAN CURRENCY

S.No. (1)*	Description of Stores with Model and Part number (2)	Make	Model	Country of Origin	Quantity (3)	Unit Price				Total Price (8) i.e. (3X7)
						Basic Price (4)	Applicable Excise duty (5)	Other Taxes (6)	Total unit price (7) i.e. (4+5+6)	
	Total Cost									

* S.No. should be same as the S.No. in List of Deliverables.

SCHEDULE IV									
PRICE BID FOREIGN EQUIPMENTS - CURRENCY -----									
S.N* (1)	Description of Stores with Model and Part number (2)	Make	Model	Country of Origin (3)	Quantity (4)	Unit Price			Total Price in Currency * (8) i.e (4X7)
						Basic Price (5)	Applicable duties (6)	Total unit price (7) i.e (5+6)	
	Total Cost all inclusive of 5 years onsite warranty, onsite delivery charges and custom clearing charges								
	2. *The currency of the bid i.e. USD/ Euro should be specified by the vendor in column 8								

* S.No. should be same as the S.No. in List of Deliverables.

Technical Specifications

Volume – S IV

NIT: SECI/SOLAR/PV/R&D/13-14/001

Turnkey Supply (Including Air Freight, Insurance, Customs Clearance in India, Local Transportation to National Institute of Solar Energy Gwal Pahari Gurgaon, subsequent transportation to the site with Transit Insurance, Civil works), Installation, Commissioning and Maintenance of Calibration lab along with Instruments for calibration of Measuring Instruments for Solar Radiation and other meteorological parameters at National Institute of Solar Energy, Gwal Pahari Gurgaon.

1.0 GENERAL REQUIREMENT:

Solar Energy Corporation of India (SECI) was set up on 20th September 2011, as a not-for-profit company under Section-25 of the Companies Act 1956 as an implementation and facilitation institution 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 JNNSM and achieving the targets set therein. The Corporation has the objective of developing Solar Technologies and ensuring inclusive solar power development throughout India. Under this project it is proposed to establish a Calibration lab along with Instruments for calibration of Measuring Instruments for Solar Radiation and other meteorological parameters on turnkey basis at National Institute of Solar Energy, Gwal Pahari Gurgaon (Haryana). The bidder will be responsible for supply, installation, commissioning and maintenance of the system and will provide five years comprehensive warranty for the system. The bidder will also impart exhaustive training to SECI officials on operation and maintenance of the system.

Work methodology for Civil works

The following technical specification, code of practice etc. referred herein form a part of the Item Specification and work shall be executed accordingly. In the absence of any definite provision in the technical specifications contained herein, reference may be made to the latest CPWD specifications and IS codes, in that order. Wherever these are silent, the construction and completion of the works shall conform to sound engineering practice and in case of any dispute arising out of the interpretation of the above, the decision of the appointed representative / In-charge by SECI shall be final and binding on the Contractor.

These technical specifications shall be read in conjunction with the various other documents forming the contract, namely Notice Inviting Tender & Instructions to Tenderers, Conditions of Contract, Special Conditions of Contract and other related documents, together with any addenda thereto issued.

Successful bidder has to prepare the drawing & design for double storied building of the lab (approximate construction area 500 sq. ft. + one 100 sq. ft. room at rooftop) as per the requisition proposed by SECI in order to meet all the operational needs/requirements of the lab & have to fulfill all statutory compliance applicable with

respect to proposed building. Erection of lab building along with plumbing, electrical, air-conditioning, doors & windows as per approved drawings. General works such as setting up lab equipments, clearance of site before starting up and clearance of works after completion shall be carried out by the successful bidder.

A detailed program for the construction and completion of works (using CPM/PERT techniques) including updating of all such activities on the basis of decisions taken at the periodic site review meetings as directed by the appointed representative / In-charge by SECI.

Contractor shall carry out the survey of the site before excavation and set properly all lines and establish levels for various works such as earthwork in excavation for levelling, foundations, plinth filling, drains, cable trenches, pipelines, etc. It is necessary to establish permanent bench mark at such point which will not be affected by subsequent work. Such survey shall be carried out by taking accurate cross sections of the area perpendicular to the established reference/grid lines at 1 m intervals or nearer.

The area to be excavated / filled shall be cleared of fences, bushes, shrubs, logs, slumps, bush, rubbish slush, etc., and other objectionable matter. If any roots or stumps of trees are found during excavation, they shall also be removed. The material so removed shall be burnt or disposed off conforming to relevant EHS standard.

Adequate protective measures shall be taken by the Contractor to see that the excavation for the building foundation does not affect the adjoining structure's stability and safety. Contractor must take all the precaution to ensure the safety of the people, workers property or neighbor's property while execution of the work.

* Any other item of work which is not specifically provided here but which is necessary for complying with the provisions of the contract must be executed by the contractor/bidder without any additional cost.

Applicable Codes:

1. IS - 3764 Safety code for excavation work.
2. IS 269: Specification for ordinary, rapid hardening and low heat Portland cement.
3. IS 1489: Specification for Portland-pozalana cement.
4. IS 383: Specification for coarse and fine aggregates from natural sources for concrete.
5. IS 516: Methods of test for strength of concrete.
6. IS 1199: Methods of sampling and analysis of concrete.
7. IS 432 (Part I & II): Specification for mild steel and medium tensile steel bars and hard drawn steel wire for concrete reinforcement.
8. IS 1139: Specification for hot rolled mild steel and medium tensile steel deformed bars for concrete reinforcement.
9. IS 1566 : Specification for plain hard drawn steel wire fabric for concrete reinforcement
10. IS 4990 : Specification for plywood for concrete shuttering work
11. IS 2645 : Specification for integral cement water-proofing compounds
12. IS 2750: Specification for steel scaffoldings.
13. IS 3696: Safety code for scaffolds and ladders.

Note: Any relevant codes required for execution of the work as per required strength, durability & functionality of project must be adhered & followed

The equipments deliverable under the project follows as:

A. Absolute Cavity Radiometer (Model AHF, Eppley make): 1 No.

Instrument	Eppley Hickey Frieden Absolute Cavity Radiometer with control unit.
Calibration Traceability	Reference Cavity Radiometers, which are traceable to WRR.
Sensor Type	Balanced cavity receiver pair attached to circular wire wound and plated thermopile.
Operation Method	Electrical substitution method.
Aperture area	50 mm ²
Shutter	Automatic
Voltage Measurement	100 nV equivalent in radiation of approximately 0 W/m ²
Control Unit	The control unit perform the control functions like setting of the calibration heater power level, activation of calibration heater, selection of signals to be measured and control of the meter measurement function and range.
Control software features	Parameters for independent, automatic measurement and cavity radiometer comparison.
Supply Voltage	12VDC/230±10% VAC
Output Signal	Analogue voltage or current compatible to data logger.
Environmental	-20°C to +60°C at relative humidity 0 to 100%
Calibration	Traceable to WRR

B. PMO6-CC Radiometer: 1 No.

Dimension: 80 x 80 x 230 mm

Mass: 2.15 kg

Field of view: 5°

Slope angle: 1°

Range: up to 1400 W/m²

Traceability to WRR < 0.1%

Operating temperature range: -25° C to 50° C

PMO6-CC Control Unit

Dimension: 280 x 270 x 85 mm

Mass: 3 kg (approx.)

Power requirement: 8.5 W

Accuracy: Absolute measurement uncertainty less than 50 ppm of radiometer full scale range.

Outputs: Analog ± 10V

Digital: RS232, 9600Bd, 8 bit, non-parity, 1 stop

Operating temperature range: 10°C-40°C

C. Pyranometer: 7 (Reference Pyranometer , complying to the specification of ISO 9060)

1.	Instrument	<u>(Eppley Precision spectral Pyranometer PSP for global & diffused radiation)</u> High quality precision Pyranometer for global and diffused radiation [Without Shading Ring/ With Shading ball / disc Assembly] for reference measurement in Radiation Network in extreme climates with high accuracy and reliability.
2.	Purpose	Standard for calibration of network Pyranometer
3.	WRC/ISO Classification	Classified Secondary Standard, Class 1
4.	Sensor Type	Circular multi-junction wire-wound thermopile
5.	Dome Type	Double dome
6.	Dome material	High Quality Glass, WG295 glass or equivalent
7.	Sensitivity	7 - 10 $\mu\text{V}/\text{W}/\text{m}^2$ or better
8.	Spectral Range	285 -2800 nm or better
9.	Response Time (95%)	1 second (1/e signal) (max 10 s)
10.	Linearity	$\pm 0.5\%$ from 0 to 2800 W/m^2
11.	Temperature Compensation	Less than 1% over ambient temperature range -20°C to $+40^\circ\text{C}$ and a temperature compensation curve to be provided (max 1 %)
12.	Cosine error	$\pm 1\%$ from normalization $0-70^\circ$ zenith angle or better, $\pm 3\%$ $70-80^\circ$ zenith angle or better.
13.	Orientation & Tilt error	$< 0.5\%$ (performance not affected by orientation or tilt)
14.	Zero offset : response to 200 W/m^2 net thermal radiation	Less than 5 W/m^2
15.	Zero offset : response 5 deg C/hr change in ambient temperature	Less than 2 W/m^2
16.	Resolution (smallest detectable change)	$\pm 1 \text{ W}/\text{m}^2$ or better
17.	Shading	Shading ball /disc Assembly mounted on solar tracker
18.	Output Signal	Analogue voltage which is compatible with the data logger
19.	Environmental	Temperature range -20 to $+60^\circ\text{C}$ Rel. Humidity range 0-100%
20.	Each instrument shall be supplied with necessary cable	Required
21.	Calibration Traceability	Traceable to World Radiometric Reference(WRR) of World Radiation Center (WRC),Davos of WMO(each instrument)

D. Pyranometer (For Global Radiation and diffused radiation) - 7 Nos.

Instrument	Hukseflux Pyranometer for global and diffused radiation model SR20 or better
Calibration traceability	Traceable to the WMO standard maintained by World Radiation Centre (WRC) with calibration certificates from the manufacturer
Purpose	Standard for calibration of network Pyranometer
ISO classification (ISO 9060: 1990)	Secondary Standard Pyranometer
Sensor type	Circular multi-junction wire-wound thermopile
Dome type	Double dome
Dome material	High quality glass, WG295 glass, equivalent or better
Sensitivity	min 7 – 10 $\mu\text{V/W/m}^2$ or Better
Spectral range	300 -2800 nm
Response time	1 second (1/e signal)
Linearity	$\pm 0.5\%$ from 0 to 2800 Wm^{-2}
Temperature compensation	Less than 1% over ambient temperature Range -10°C to +40°C and a temperature compensation curve to be provided
Tilt Response	$< \pm 0.5 \%$ (0 to 90 ° at 1000 W/m^2)
Zero offset : response to 200 W/m^2 net thermal radiation	Less than 5 W/m^2 unventilated
Zero offset : response 5 deg C/hr change in ambient temperature	Less than 2 W/m^2

E. Pyrheliometer: 4 Nos (Eppley Make)

1.	Instrument	PYRHELIOMETER
2.	Purpose	Measurement of Direct Normal Radiation
3.	ISO classification	<p>First Class, High Quality Normal Incidence Pyrheliometer.</p> <p>The calibration of this instrument is traceable to standard self-calibrating cavity Pyrheliometer in SI units, and have participated in the International Pyrheliometer Comparisons (IPC) at Davos, Switzerland. Calibrations of Pyrheliometer at factory reproduce the WRR traceable standards.</p>
4.	Spectral range	300 to 2,800nm or better
5.	Response time	1 second (1/e signal).
6.	Resolution	1.0W/m ² or better
7.	Stability	1% (Full Scale) or better
8.	Temperature dependence	±1% or better
9.	Linearity	±0.5% from 0 to 1400 Wm ⁻²
10.	Sensitivity	7 μV/Wm ⁻² or more
11.	Impedance	200 Ohms or better
12.	Full opening view angle	5° ± 1° or better
13.	Mounting	Solar Tracker
14.	Output Signal	Analogue Voltage or Current compatible with the data logger
15.	Environmental	Temperature range -20 to +60°C Rel. Humidity range 0-100%
16.	Each instrument shall be supplied with necessary cable	Required
17.	Calibration Certificate	Calibration certificate traceable to WRC / WRR to be provided with each instrument

F. Pyrheliometer- 4 Nos.: (Huskeflux Make)

Instrument	Pyrheliometer
Purpose	Measurement of Direct Normal Radiation
ISO classification	First Class, High Quality Normal Incidence Pyrheliometer.
	The calibration of this instrument is traceable to standard self-calibrating cavity pyrheliometers in SI units, and have participated in the International Pyrheliometer Comparisons (IPC) at Davos, Switzerland. Calibrations of pyrheliometer at factory reproduce the WRR within $\pm 1\%$ in general.
Spectral range	300 to 2,800nm or better
Response time	1 second (1/e signal).
Resolution	1.0W/m ² or better
Stability	1% (Full Scale) or better
Temperature dependence	$\pm 1\%$ or better
Linearity	$\pm 0.5\%$ from 0 to 1400 Wm ⁻²
Sensitivity	7 μ V/Wm ⁻² or more
Impedance	200 Ohms or better
Full opening view angle	5° \pm 1° or better
Mounting	Solar Tracker
Output Signal	Analogue Voltage or Current compatible with the data logger
Environmental	Temperature range -20 to +60°C Rel. Humidity range 0-100%
Each instrument shall be supplied with necessary cable	Required
Calibration Certificate	Traceable to WRC / WRR to be provided with the system

G. Solar Tracker: 4 Nos.

1.	Instruments to be mounted on Solar Tracker	<p>SOLAR TRACKER SYSTEM with Shading ball /disc Assembly. Solar tracker should support:</p> <ul style="list-style-type: none"> • Two Pyrheliometer for direct radiation measurement (one operational and the other for calibration) • One Pyranometer with shading assembly and support for diffuse radiation measurement • One Pyranometer without shading assembly and support for global radiation measurement • Complete mounting kit for two Pyrheliometer, two Pyranometer and shading ball /disc assembly to be provided with the solar tracker
2.	Purpose	Two axis fully automatic solar tracker with active sun sensor and GPS for tracking of Sun unattended and automatic operation.
3.	Pointing Accuracy	$\pm 0.1^\circ$ in both axis
4.	Torque	35 NM or better
5.	Payload	30 kg or more
6.	Clock synchronization	The complete system should be Sun time synchronized including active sun tracking and GPS with accuracy of sun tracking as given above
7.	Data Logger Interface	RS232 or 422/485 with PC interface, The solar tracker will be connected to data logger and will be controlled from existing CRS via two way GPRS communication.
8.	Supply voltage	12 V DC or 24 V DC
9.	Environmental	Temperature range -20 to +50°C Rel. Humidity range 0-100%
10.	Construction Material	Rust Proof Cast aluminum housing. Stainless steel worm to support a payload of at least 30 kg. The belts will not be accepted as transmission system.
11.	Mechanical Transmission	By worm and ring /bevel gear
12.	Mounting base	Tripod with spirit levels
13.	Each instrument shall be supplied with necessary cable	Required

14.	Other desirable features	<p>1) To work on ultra-low power to work with a battery and solar panel in a remote site.</p> <p>2) Automatic solar tracking after power failure.</p> <p>3) Automatic daily two axis calibration</p> <p>Note: The offered model of the Solar Tracker must be field proven system and at least in production from last more than 2 years. The OEM must issue a letter of undertaking in this regard and attach a list of references of customer with address of correspondence, which are using the offered model.</p> <p>In absence of these information and document, the SECI will reserve the right to disqualify the technical bid.</p>
-----	--------------------------	--

H. Data Logger: 5 Nos

1.	Number of Input Channels	<ul style="list-style-type: none"> • 16 Analog Input Channels, fully differential • 4 Digital serial (Ports RS232/422/485) • Ethernet interface • 2 Digital Inputs • 2 Digital Outputs • 4 Frequency counters 																		
2.	Analog Input	<p>The data logger channels should take following range of DC voltages and current for precision measurements</p> <table border="0" data-bbox="790 1590 1189 2004"> <thead> <tr> <th>Full Scale</th> <th>Resolution</th> </tr> </thead> <tbody> <tr> <td>±2500mV</td> <td>5 µV</td> </tr> <tr> <td>±1250mV</td> <td>2.5 µV</td> </tr> <tr> <td>±625mV</td> <td>1.25 µV</td> </tr> <tr> <td>±312.5mV</td> <td>0.625 µV</td> </tr> <tr> <td>±156.25mV</td> <td>0.312 µV</td> </tr> <tr> <td>±0.3 mA</td> <td>2.5 nA</td> </tr> <tr> <td>±3 mA</td> <td>25 nA</td> </tr> <tr> <td>100 Ω</td> <td>1.5 mΩ</td> </tr> </tbody> </table> <p>In addition the individual channels may be programmed for different range of signals</p>	Full Scale	Resolution	±2500mV	5 µV	±1250mV	2.5 µV	±625mV	1.25 µV	±312.5mV	0.625 µV	±156.25mV	0.312 µV	±0.3 mA	2.5 nA	±3 mA	25 nA	100 Ω	1.5 mΩ
Full Scale	Resolution																			
±2500mV	5 µV																			
±1250mV	2.5 µV																			
±625mV	1.25 µV																			
±312.5mV	0.625 µV																			
±156.25mV	0.312 µV																			
±0.3 mA	2.5 nA																			
±3 mA	25 nA																			
100 Ω	1.5 mΩ																			

3.	Alphanumeric display	4x20 character Display with integrated keypad
4.	Analog to Digital Converter Resolution	24 bits or better (20 noise free resolution bits)
5.	Programmability	Fully onsite programmable through display and inbuilt keypad and remotely Programmable through CRS
6.	Communication ports	<ul style="list-style-type: none"> • User configurable Multiple RS 232C/RS 422/RS/485 • SDI 12/ETHERNET 10/100 Mbps
7.	Data transfer rate	1200 to 115200 bps
8.	Internal Memory	64 MB or better
9.	External Memory	Minimum 2 GB or higher SD card
10	Adjustment and calibration	The data logger should have facility to add more radiation and weather monitoring sensor.
11	Sampling Rate	1 second to 60 minutes (The sampling rate should be programmable independently for each channel with in sampling range)
12	Telemetry/communications	<p>The data logger should have provision for Interfacing with following type of Communications</p> <ul style="list-style-type: none"> • GSM/GPRS // CDMA • Ethernet • Wi-Fi/PSTN, • Radio Link
13	Internal Clock Accuracy	10 seconds/months or better
14	GPS	The data logger must have GPS systems for time and sun synchronisation.
15	Operating Temperature Range	-30°C to + 70°C
16	Humidity Range	100% RH (Non – Condensing)
17	Power Requirement	12VDC to 15 VDC
18	Power Consumption	Less than 200 mW for full duty cycle
19	Data Logger Housing	Polypropylene enclosure, IP67 Protection full protection and non-corrosion housing.

20	Data storage	It should be able to store latest six months data even after transmitting the data to the central server
----	--------------	--

Communication System

	Type of Modem	GSM/GPRS Modem, Modem with GSM/GPRS/CDMA facility which allows fast and reliable wireless data communication along with support for dynamic domain access to the central server IP address.
1.	Frequency range	Quad band, 850, 900, 1800 and 1900 MHz
2.	Data communications	GSM/GPRS facility with fast and reliable wireless data communications.
3.	Dial-up	Remote dial-up facility
4.	Modem Support	Voice, SMS and Data
5.	Transmission	Quad Band GSM/GPRS transmission
6.	Built-in SIM card holder	Accept standard SIM card with built-in holder
7.	Operating Temperature	-20 to +55 degrees Celsius
8.	Interface	Universal Asynchronous Receiver/Transmitter (UART) TTL interface
9.	Communication with PC	PC Communication via UART
10.	IP Address	Facility for Fixed IP and domain transfer of data
11.	Command Set	Supports standard AT command set
12.	Voice and SMS support	Full voice call, SMS Support
13.	Compatibility	Compatible for Standard GSM/GPRS Networks available in India
14.	Power Consumption	Suitable power supply to function during alarm situations like fog, thunder, rainfall etc. If required additional battery needs to be included for power supply

GSM/GPRS high gain Antenna

1.	Frequency range	900 MHz: 824 - 960 MHz /1800 MHz: 1710 - 1880 MHz
2.	Impedance	50 ohms
3.	Gain	8 dBi (minimum)
4.	Radiation	Omni-directional
5.	Operating temperature	-10 to +55 degrees Celsius
6.	Connector	SMA adaptable to GSM/GPRS modem

7.	Cable length	As required.
----	--------------	--------------

I. Rain Gauge Calibrator – 04 Nos.

The Rain Gauge Calibrator must offer a convenient way to determine rain gauge accuracy. The calibrator includes a water bottle with constant head adapter and flow nozzles for various flow rates.

Materials Included:

Specification

- Graduated 1000 ml bottle
- Bottle Stand - fits in rain gauge collector
- Constant Head Adapter
- Nozzles for 1000, 1500, 2000 ml/hr nominal flow rates

J. Portable calibration set for Temperature and Relative Humidity– 04 Nos.

A portable calibration set for Temperature and Relative Humidity of the air is required with light weight suitable carrying box

General Specification

Operating temperature range	: -10 to +40 °C
Operating humidity range	: non-condensing
Maximum pressure limit	: 5000 hPa abs.
	Power supply Rechargeable NiMH battery pack with AC-adapter or 4 AA-size alkaline, type IEC LR6 Operation time (using rechargeable battery pack)
	Data logging use: up to 30 days
Display	LCD with backlight, graphic trend display of any parameter, character height up to 16 mm
Data logging	Capacity 2700 points

Performance Specification

Relative Humidity

Measurement range	0-100% RH	
Accuracy	(incl. non-linearity, hysteresis and repeatability)	
At +15 ... +25 °C	±1 % RH (0 ... 90 %RH)	
	±1.7 % RH (90 ... 100 %RH)	
At -10 ... +40 °C	± (1.0 + 0.008 x reading) %RH	
Factory calibration uncertainty (+20°C)	±0.6 %	RH (0 ... 40 %RH)
	±1.0 %	RH (40 ... 97 %RH)

Temperature

Measurement range from -10 to +50 °C

Accuracy: -10°...+20°C $\pm(0.176 - 0.0028 \times \text{temperature})$

+20°...+50°C $\pm(0.07 + 0.0025 \times \text{temperature})$

Temperature sensor: Pt100 RTD 1/3 Class B IEC 751

K. Portable calibration set for Barometric Pressure – 4 No's.

Measurement range	500 - 1100 hPa
Linearity	± 0.05 hPa
Repeatability	± 0.03 hPa
Accuracy at	+20°C ± 0.10 hPa
Temperature dependence	± 0.1 hPa
Total Accuracy	-40° ... +60°C ± 0.15 hPa
Long-term stability	± 0.1 hPa/year

L. Ultrasonic Wind Speed/Direction Calibrator sensor with digital display- 4 nos

Ultrasonic Wind Speed/Direction Calibrator sensor

Wind Speed:

Range	0 – 60 m/s
Accuracy	$\pm 2\%$
Resolution	0.01 m/s

Wind Direction:

Range	0 to 360° – no dead band
Accuracy	$\pm 3^\circ$
Resolution	1°

General:

Moisture Protection	IP65
Operating Temperature	-35°C to 70°C
Storage Temperature	-40°C to 90°C
Operating Humidity	<5% to 100%
Output	1, 2 or 4 outputs per second
Parameters	Wind Speed & Direction
Units of Measurement	-m/s, knots, mph, kph, ft/min
Output Port	RS232+ RS422 + RS485

LED display for Ultrasonic Wind sensor

Wind speed is displayed in choice of units: KNOTS, MPH, KM/H, M/S. Maximum wind speed is also shown. Wind direction information is clearly displayed on a circular compass pattern of LEDs. The instantaneous wind speed and direction should be display on two separate 3 digit 7 segment LED on the panel. For quick look of wind direction a multicolored segments give a quick visual indication of current direction and variability. The circular LED array is provided to visualize the instantaneous wind direction and variability.

Front panel brightness control allows adjustment for best viewing in any light. A variety of inputs and outputs including 4-20 mA, Serial (RS-485), and Voltage are standard on the Wind Tracker.

Specifications:

Wind Speed Range:

0-60 M/S

0-200 KM/H

0-120 KNOTS

Wind Direction Range:

0-360 degrees

Voltage Outputs:

0-5 VDC Full Scale for WS & WD

Alarm Relays : Normally Open contacts for WS & WD

Remote Displays : 16 max.

Power Requirement: 12-30 VDC, 4.5 W

Dimensions:

144 mm x 144 mm x 36 mm

M. Solar power system: (1No.)

The complete station has to run on solar power and batteries. The vendor must provide fully solar power operated system with Solar Panels, Battery bank and Solar Charge Controller. The vendor must provide 10 days full power back up for operating the systems at field stations with sampling every 1 second for all the parameters including temperature, humidity, and wind etc., averaging every one minute and transmission of data as schedule every 10 minutes with sufficient batteries charging through solar panels. The system must be capable of working 10 days with transmission of data as schedule every 10 minutes without any external charging. The vendors need to offer adequate solar panel and batteries to operate the system in all seasons throughout the year.

The vendor must attach a detailed **POWER BUDGET CALCULATION** taking care of solar panel and battery efficiency and sufficient safety factor of the system supported with documentary proof in technical bid for power consumption of the station for minimum 10 days on batteries without any charging. The detailed power consumption of each sensor, solar tracker, GSM modem etc must be clearly mentioned in the technical brochures to support vendor's statement. Without availability or false information about power budget calculation, the bid will be taken to be

technically non-compliant. The price bid should clearly mention the cost of power system depending upon the power budget calculation. Lowest bid will be determined on the basis of power budget calculation.

N. Solar Radiation Resource Assessment server

Sl.No.	Description of Equipments	Qty
a)	Dual Hot Redundant Servers – 2Nos. HP ProLiant DL380e Gen8: 1 x Intel® Xeon® E5-2407 (2.2 GHz/4-core/10MB/6.4GT-s QPI/80W, DDR3-1066, HT)/ HP 16 GB Ram / HP Ethernet 1Gb 4-port 366i Adapter/Smart Array P420/1 GB FBWC 6Gb 1-port Int/1-port Ext SAS Controller/4 LFF SAS/SATA HDD Bays/HP 9.5mm SATA DVD ROM Kit/ 4 x HP 2 TB SATA 7.2 K rpm LFF (3.5-inch)/2x HP 460W CS Gold Hot Plug Power Supply Kit. OR same features/specification with equivalent make.	1 Set
b)	Server Rack – floor mounted President make 42U floor mountable rack with accessories, cooling fan, earthing kit etc.	1
c)	D-Link / Netgear Firewall and giga Lan switch	1
d)	19" TFT, KVM switch, keyboard and mouse	1
e)	42 Inch LCD Screen with HDMI port and thin Client	1
f)	APC SURT 5000 rack mountable with battery bank UPS 5 KVA APC with battery bank (with maintenance free batteries)	1
g)	Network attached storage 8 TB	1
h)	Microsoft OS Original operating software in all servers	1
i)	Antivirus software with 5 years License	1
j)	Microsoft SQL database software License	1
Software for Central Station		
k)	Analysis Software with full graphics display, communication, management and database generation for Central Receiving Station. Geonica / Equivalent (compatible) Suite W4K	1

2. SPECIAL TERMS

- Technical specification better than the one indicated above shall be acceptable.
- Power and Signal Cabling, adaptors, interface units other accessories including cable conduits required for safe & successful commissioning of the equipment shall be provided by the vendor
- The instrument shall be erected and commissioned to the satisfaction of SECI.
- One number of hard copy & 1 number of soft copy of the user manual shall be supplied.

3. Sampling and Transmission :

Each sensor has to be sampled every second. The averaging of all the samples should be done every minute (using 60 samples). All the averaged values and last instantaneous value of each set of 60 seconds should be transmitted every 10 minutes to the Central station.

4. MANPOWER REQUIREMENT TO BE PROVIDED BY VENDOR

a. Resident System Engineer

The vendor will quote for the cost of one Resident System Engineer, who have at least 3 + years experience in the similar field and having full knowledge about the hardware and software of the system. He must be fully trained and he will be stationed at SECI during project period of 5 years, who will be responsible for all technical & other support like maintenance of instrument, data communication and report generation. The resident system engineer will be placed in New Delhi and report to Nodal Officer in SECI on daily basis on all working days.

The cost of the resident system engineer for 5 years will be added to determine the lowest cost of the bidder.

b. Field Personnel at sites-

The vendor will quote also for the cost of field personal at sites for following:

- For execution of the proposed calibration lab facility at Gwal Pahari Gurgaon (Haryana)
- Accumulation of dust and other pollutant accumulated over radiation system vitiate the accuracy of calibration setup and thus the weather exposed calibration equipment requires regular cleaning & up-keeping following standard procedure. The field personnel are required to clean the radiation and other equipment

everyday so that the calibration instruments remain within tolerance/ accuracy limit.

- The field personnel will maintain the log of activities and send to monthly report to resident manager at SECI.
- The cost of personnel for 5 years responsible for cleaning of the site should be quoted in the price bid and will be added to calculate the lowest bidder.

5. **WARRANTY AND MAINTENANCE**

The manufacturer should provide comprehensive **onsite warranty maintenance of 5 years** after commissioning of the last system in the field. The manufacturer should simultaneously take on the work of servicing and routine (preventive cum predictive) maintenance of field equipment as per OEM recommendation and site requirements. Response time for rectifications of faults in the field equipment should not be more than two days. If the down time is more than two days, the warranty period will be presumed to be extended by a period twice the down time.

A signed copy of monthly maintenance report (both soft as well as hard copy) should be submitted on monthly basis to the Nodal officer of SECI New Delhi.

6. **RECURRING COST**

Remote station GPRS charges and central recurring communication charges would be borne by SECI.

SECI would directly sign the rental agreement with the communication service provider. Vendor to supply and commission all the hardware required for communication as per their design such as modem, routers etc.

7. **SPARES**

The spares as per the list of recommended spares are to be supplied by the vendor. The spares will be kept at SECI / NISE store and will be provided to the vendor during warranty as and when required. The vendor should provide refurbished /new / repaired spare within 4 weeks of issue of unit.

8. **TESTING, INSTALLATION KIT**

- i. The supplier shall provide 2 sets of kits of all equipment, meters, tools and test kits required for the purpose of testing & installation, including telecommunication equipment. All the tools and fixtures required for mounting and dismounting all the equipment from their respective installation sites shall be included.
- ii. Supply, installation and commissioning of Lightning Arrestors

9. **DOCUMENTATION**

- i. The authorization of representation from the manufacturer of the major equipments should be submitted by the bidder along with the technical bids.
- ii. The bidders shall submit literature/brochures of the products and components being offered in the technical bid in response to this tender enquiry.
- iii. The manufacturer should provide detailed manuals for operation, servicing and maintenance of each sub system including all block diagrams and detailed circuit diagrams.
- iv. The catalogues of all the vital components used in the system should also be provided along with recommended list of spares by OEM.
- v. The copies of software listings may be provided in the form of CD ROMs or other suitable media. All manuals should be given in printed form also.

Note: - Failure to provide these documents along with technical bid will be deemed as NON-COMPLIANCE. All such technical bids will be considered as NON-RESPONSIVE.

10. COMPLIANCE MATRIX

The bidder shall submit a detailed item-wise compliance statement referring para-wise to the requirements given in this document with Make and Model. **Alternate bids/models** are not acceptable. The make and model offered in the compliance statement must be same as given in the list of deliverables/price bid. The compliance matrix shall be supported by original brochure(s) of the equipment or sub component from the manufacturer. In case the original brochure is silent on any part of tender specification, it shall be supported by an undertaking by the manufacturer, if claimed complied. The compliance matrix must contain detailed explanation by the bidder justifying the compliance of the specification of the offered equipment as per the specification of the equipment given in various paras of RFP.

Silence on any part of the technical specification or failure / omission to provide any such details will be treated as non-compliance.

11. INSTALLATION, SYSTEM INTEGRATION AND COMMISSIONING

The installation of all the station will be done as the turn key project including all civil work.

- Vendor will be responsible for levelling of sites chosen mutually with good exposure condition.
- Vendor will make the RCC base with grouted bolts for installation of 6 meter triangular tower. The RCC base for guy wire support for tower will also be constructed by vendor.
- Vendor will construct 1 meter height mounting stand with adequate foundation for installation of sun tracker with radiation at site.

- The vendor should create a stand for Solar panels and battery bank (duly enclosed in NEMA 4 enclosure)
- All the battery / solar panel wiring and signal cables will be done through BIS standard conduits and no wiring should be exposed. The electrical and signal cable should be installed in separate conduits.
- All the installation bolts and accessories should be of rust free stainless steel material
- The civil work at the field station will be done under the instruction/supervision of SECI representatives and vendor shall incorporate any modification and suggestion made by the SECI officials.

12. DELIVERY SCHEDULE

- a) Supply, erection and commissioning with respect to civil, electrical, mechanical plumbing & Fire Fighting must be completed within 4 months from the date of placement of issue of Letter of Award.
- b) Supply, Installation & Commissioning of hardware and software of all the instruments/sensors must be completed within 5 months from the date of placement of purchase order/LOA.
- c) Commissioning and integration along with successful operation of the project must be achieved within 6 months from the date of placement of purchase order.

13. TRAINING TO SECI OFFICIALS

Training will be conducted in two phases:

Familiarization cum inspection program under which maximum 5 officials of SECI will be given in depth training including 1 day in-house training on handling of software and 1 day in field training on hardware and software for one week at OEM's workshop. Air travel, boarding, lodging and per diem will be borne by successful bidder. The same should be quoted as training at OEM site charges per officials in the price offer. The bidder should submit the day wise training schedule and the subjects which will be covered under this training.

14. INSPECTION AND TEST

- I. SECI shall have the right to inspect and to test the Equipment to confirm their conformity to the Specifications without any extra charge to the SECI by the Supplier. The Supplier shall notify SECI in writing, in a timely manner, of the schedule of inspection and test.
- II. The supplier shall submit the performance test report to SECI. Factory Acceptance Test (FAT) and Site Inspection Test will be as per requirement of SECI. The OEM training should be conducted before the dispatch of equipments

so that the officials going for OEM training program can be the part of the FAT conducted by the OEM for approval and quality assurance.

15. PRICE PROPOSAL (As per the list of deliverables)

The bidder shall submit the detailed price proposal keeping in mind the scope of work site condition and as per bill of quantity and considering the project as turnkey. The prices must be quoted item wise with all the details. The charges must be quoted clearly and not in vague terms like “As Actual” “Approx” etc.

Sl. No.	List of deliverables	Qty. Nos.
1	Eppley Hickey Frieden Absolute Cavity Radiometer with control unit	1
2	Absolute Cavity Radiometer System(Model PMOD 06 CC)	1
3	Eppley Precision Spectral Pyranometer PSP for global and diffused radiation	7
4	Huskeflux Pyranometer SR20 for global and diffused radiation	7
5	Eppley Normal Incidence Pyrheliometer	4
6	Huskeflux Pyrheliometer DR02	4
7	Solar tracker system With Shading ball /disc Assembly	4
8	Data Logger	5
9	Hand Held Precision Relative humidity and temperature calibrator with carry case.	4
10	Standard barometer Pressure comparison Calibrator with carry case	4
11	Wind speed and Direction calibration kit and display	4
12	Solar Power System	1 Lot
13	Rain gauge calibration Kit	4
14	Server	1
15	Resident System Engineer as per clause 9a (5 years)	1
16	Installation & Commissioning	1 lot
17	Training of SECI officials for calibration of above mentioned instruments & operation of lab as per clause:13 of Technical Specification	5 officials

18	Transportation of Material to site	1 lot
19	Field technician (5 years) for lab site	2
20	Construction of lab with electrical, mechanical, plumbing & firefighting infrastructure.	1 lot

