

REGIONAL CENTRE FOR BIOTECHNOLOGY

an institution of education, training and research

Established by the Dept. of Biotechnology, Govt. of India
Under the Auspices of UNESCO
NCR Biotech Science cluster, 3rd Milestone, Faridabad-Gurgaon Expressway, Faridabad- 121 001, India

REVISED TENDER DOCUMENT

No.RCB/BSC/F.146 /SPV/2015-16/01

(Three Bid system)

NAME OF WORK:

DESIGN, SUPPLY, INSTALLATION, TESTING, COMMISSIONING (D.S.I.T.C) WITH FIVE YEARS OF OPERATION & MAINTENANCE CONTRACT OF 2 x 25 kWp On line Grid Tied SOLAR PHOTOVOLTAIC POWER PLANTS AT NCR - BIOTECH SCIENCE CLUSTER, GURGAON-FARIDABAD EXPRESSWAY, VILLAGE BHANKRI, FARIDABAD-121004 (HARYANA).

CLIENT:

**EXECUTIVE DIRECTOR, RCB FARIDABAD
FLOATING TENDER ON BEHALF OF RCB & THSTI**

COST OF TENDER DOCUMENT: - Rs. 1,500/-

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TENDER NOTICE

TENDER DOCUMENT NO. RCB/BSC/F.146 /SPV/2015-16/01 Dt. 09/04/2015

Sealed tenders are invited under **three bid system** (Pre Qualification, Technical & Financial) from Manufacturers/ Suppliers of Solar PV Systems who must be channel partners of MNRE in India having valid test certificates from MNRE authorized test centers for their products for **“Design, Supply, Installation, Testing and Commissioning of Two numbers of each 25 kWp On Line Grid Tied Solar Photovoltaic Power Plants with aggregated capacity of 50 kWp with Five Years of Operation & Maintenance Contract”** for RCB & THSTI buildings at NCR-Biotech Science Cluster, Gurgaon-Faridabad Expressway Village- Bhankri, Faridabad (Haryana).

Period of issue of Tender Document : The tender document can be downloaded from RCB/THSTI website (www.rcb.res.in & www.thsti.res.in) during sale period.	13th April 2015 to 12th May 2015 during working days and office hours only during 11.00 AM to 16.00 PM.
Cost of Tender Document :	Rs. 1500 /-(Rupees One thousand Five hundred only) in the form of a demand draft/ pay order in favour of “Executive Director, Regional Centre for Biotechnology” , payable at Gurgaon, from nationalized bank only.
Estimated Cost :	Rs. 50.28 Lacs.
Earnest Money Deposit :	Rs. 2.00 Lacs by D.D./ F.D. in favour of Executive Director, Regional Center for Biotechnology payable at Gurgaon from any Nationalized bank.
Security Deposit by the Successful Bidder	10% of total contract value by D.D/F.D in favour of “Executive Director, Regional Centre for Biotechnology” , payable at Gurgaon , from nationalized bank only.
Period of Completion :	Four months.
One Similar completed work contract	Rs. 40.00 Lacs
Two Similar completed work contract	Rs. 25.00 Lacs
Three Similar completed work contract	Rs. 21.00 Lacs
Turnover per Year	Min Rs. 10.00 Crore/ annum

Year of Experience	Min seven Years
Pre Bid meeting	22nd April 2015 at 2.30 PM
Last Date of Submission :	13th May 2015 by 2.30 PM
Date of Opening :	13th May 2015 at 3.00 PM

The **Executive Director, Regional Centre for Biotechnology** reserves the right to accept / reject any or all the tenders without assigning any reason therefore.

Sr. Manager (A&F) RCB

(TO BE SUBMITTED ALONG WITH TECHNICAL BID)

TENDER DOCUMENT NO. **RCB/BSC/F.146 /SPV/2015-16/01**

UNDERTAKING

The Executive Director,
Regional center for Biotechnology,
NCR-Biotech Science Cluster,
3rd Milestone, (towards Gurgaon)
Gurgaon-Faridabad Expressway
Village- Bhankri, Faridabad-121001
Haryana.

We the undersigned (herein after called as Contractor/Vendors/Suppliers) hereby offer to execute supply of items as per specification against which we have quoted our rates and for which this tender may be accepted at the rates stated there in and subject to the terms & conditions set forth for such items as may be ordered by the Executive Director, RCB or officer acting on his behalf.

Date this _____ Day of _____

Signature of Contractor _____

Address _____

Seal of the Tenderer _____

DETAILED TENDER NOTICE

NAME OF WORK: “Design, Supply, Installation, Testing and Commissioning of Two numbers of each 25 kWp On-Line Grid Tied Solar Photovoltaic Power Plants with aggregated capacity of 50 kWp with Five Years of Operation & Maintenance Contract”

I. ELIGIBILITY CRITERIA & COVER SYSTEM

Cover-1 - Pre-Qualification (Before opening the Technical bid)

Cover-2 - Technical Bid

Cover-3 - Financial Bid

1.1 PRE QUALIFICATION: COVER – I:

1. The Company should be Original Manufacturer/ **supplier / integrator** of PV Modules with IEC 61215, 61730 1 & 2 certifications in India – proof to be submitted
2. The Company should be a Channel Partner of MNRE (SPV) with a validity period of **March 2015** (or as per the norms of MNRE) – proof to be submitted
3. The Channel partner should have allocation from the MNRE at least 250 kWp & above for claiming the subsidy – proof to be submitted
4. Channel partner’s company must be in business for the last **2 years** (minimum) – proof to be submitted
5. The firm / sub contractor or technical agent has to produce valid Electrical A grade license – proof to be submitted.
6. The Company should be an ISO 9001 -2008 & 14001 2004 Certified – proof to be submitted
7. The firm, who has set up at least **Two** solar power plant of minimum **25 kWp** or above capacity in the premises of reputed Government building and State or Central Universities and such other government buildings of national importance is preferred – proof to be submitted

8. **Cost of tender document Fee of Rs.1500/-** in the form of a demand draft/ pay order in favour of “**Executive Director, Regional Centre for Biotechnology**”, payable at Gurgaon, from nationalized bank only.
9. EMD should be put in separate envelope with EMD super subscribed over it and should be put in envelope cover-II. Tenders received without requisite EMD will be outright rejected and Technical bid will not be opened in that case.

Important:

The firms who only qualify all the pre qualification criteria will be considered for further evaluation.

Hence the tenderer should ensure before quoting that they qualify the pre bid criteria.

1.2 TECHNICAL BID: COVER-2:

1. The channel Partner should have installed / commissioned at least **2 X 25 kWp** On-line Grid Solar PV Power Plant in India which are in useful operation before tender due date – proof to be submitted
2. The Channel partner should have installed/commissioned and maintenance/after sale services in the field of Off-Grid Solar PV systems of more than **1 Mw cumulative** capacities in India before tender due date – proof to be submitted
3. The Annual turnover of the Company in the last financial year should be at least **Rs 10 Crore from similar works** (Group of Companies turnover not acceptable) – proof to be submitted
4. Net worth of company should be at least **One crore** – proof to be submitted
6. The bidder should produce **valid PAN, TIN & TAN, VAT** clearance Certificate and latest copy of **IT Returns (FY 11-12, FY 12-13, FY 13-14)** – proof to be submitted
7. The proof of documents should be attested by Gazetted officer/Notary.
8. The Tenderer should have at least;
 - a) One similar completed work contract of Rs.40.0 lacs or more;

OR

 - b) Two similar completed work contracts of Rs.25.0 lacs or more;

OR

 - c) Three similar completed work contracts of Rs. 21.0 lacs or more.

The bidder will be required to make a short presentation on the scheduled date to the expert committee on the salient features of its product and methodology for providing the product with in stipulated time frame and its up keep post sales to NCR Biotech Science Cluster, Village Bhankri, Faridabad -121004 (Haryana).

1.3 FINANCIAL BID: COVER-3:

1. Sealed envelope (Cover -3) should contain Price bid as per Annexure -VI in a separate sealed envelope. It should be super-scribed with "ENVELOPE-3 PRICE BID". Any condition in regard to financial aspects, payments, terms of rebate etc beyond the prescribed financial terms of RCB will make the bid invalid. Therefore it is in the interest of the bidders not to write anything extra in the Price Bid in Annexure-VI except price. The tenders may enclose the detailed item-wise, work-wise break-up with the price bid. However, the bids will be evaluated on the basis of consolidated price bid as per ANNEXURE-VI.
2. Price bid should include a separate section on details of post warranty period AMC charges and details of terms and conditions for CMC and warranty.
3. Price bid should include all Taxes as may be applicable.

B Following documents are required to be sent to the address mentioned in the stipulated time. The bid criteria as mentioned in table must be fulfilled and supported by relevant document as indicated below.

No.	Eligibility Bid Criteria	Document
1	Annexure I	Properly filled and duly signed and stamped.
2	Bid Security (EMD) of Rs. 2,00,000.00 only	DD/Pay Order/Banker's Cheque /Bank guarantee in favour of " Executive Director, Regional Centre for Biotechnology " payable at Gurgaon, along with properly filled, signed and stamped Annexure II
3	Annexure III	Copy of IT return and acknowledgment of the Income Tax Department for the any three consecutive financial years, 2011-12, 2012-13,2013-14 and photocopy of PAN card Annexure III
4	Undertaking by Bidder/ Agency as mentioned in Annexure IV	On official letter head of Bidder/ Agency, duly signed and stamped by Bidder/ Agency.
5	Undertaking by Bidder/ Agency as mentioned in	As explained above.

	Annexure V	
6	Financial Standing Solvency Certificate of Rs. 1.0 crore or more from a scheduled bank	Signed certificate from Bank manager/authorized official
7	List of Major Clients	List of at least three major clients with annual contract value for not less than Rupees 21.00 Lacs P.A in each Organization.
8	License under	Only those who hold valid registration with the Labour Department , electrical, other departments required, for carrying out such works, valid in Haryana shall be eligible to bid in response to NIT and if found successful the workmen shall need to get registered with the labour department. Photocopy of license duly signed and stamped by Bidder/ Agency
9	Experience of providing similar Services in at least two Government organization (Annexure -IV)	A certificate from the authorized official of the concerned organization.
10	Validity period	The Tender shall remain valid for the period of six months from the date of submission of Tender document

C. Even though the applicants meet the above criteria, they are subject to be disqualified if they have:

- i) Made misleading or false representation in the form, statement and attachments submitted in and or
- ii) Record of poor performance such as abandoning the work, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures, etc.
- iii) Found to have been black listed in any other works.

2. **GENERAL**

1. Regional Center for Biotechnology (RCB), under the Department of Biotechnology, Ministry of Science & Technology, Govt. of India is setting up its new campus at NCR Biotech Science Cluster Faridabad with the **State-of-Art** Research & Development facilities.

2. The Centre has an existing contract demand of 4000 KVA, 11 KV electric supply from DHBVNL, Faridabad. The 11 KV supply is stepped down to 415 volts using transformers. The power is distributed through Power Control Centre/Motor Control Centre to cater to lighting, Air conditioning loads of the building. The electric supply is backed up by Two 1500 Kva Captive Diesel Generating Sets to meet the power backup requirement.

3. RCB intends to install a Solar Photovoltaic Power Generating System capable of integration with the existing 11 KV supply from DHVBNL. The available space on the terrace of each of Two buildings is proposed to house the 2 x 25Kwp Solar Photovoltaic panel and their structures and the required integrating panels will be housed in a suitable place in the buildings which will be jointly identified by the supplier along with the client.
 The scope of work included in this tender includes **the design, engineering, manufacture, supply, installation, testing and commissioning of a Solar Power Generating system capable of supplying 2x 25 KWp power with Five Years of Operation & Maintenance.** All required works for the execution and integration of the system with the existing system are in the scope of work included in this tender including designing and providing protection Guard.

4. The job to be executed is to be of best quality and conforming to all relevant national and international standards.

5. The competent parties are advised to visit the site and acquaint themselves with the area where the job included in this tender is to be executed.

3.0 INTRODUCTION

RCB & THSTI proposes to set up a **2 X 25.0 Kw** grid connect Solar Photovoltaic power plant with protective guards at their New Campus buildings at village Bhankri, Faridabad with the objective of power generation from Solar Photovoltaics

Typical Bill of Materials per **25.0 Kw** Power Plant shall consist of:

• Solar Array capacity	:	25.0 kWp
• Solar Modules Mounting Structure	:	1 Set
• Power Conditioning Unit – 25 kVA	:	1 Nos
• Data Logging System	:	1 No
• Junction Boxes	:	1 Set
• Cables & Earthing materials	:	1 Set
• Distribution Panels	:	1 set

Others Requirements:

- ~~Control Room~~ - **Not required**
- Installation and commissioning
- Operation and Maintenance.(for five years)
- ~~Protective Guard (design , fabrication and erection) using 2" x 3" of 4mm wire mesh with 1.5" MS angle frame. The design of the same will be got approved from the Engineer in-charge (Project)~~ - **Not required**
- **However the vender will ensure that SPV panels are strong enough to withstand shock loads as result of monkeys jumping over them.**

3.1 The OBJECTIVE

Main Objective of setting up the power plant is to support peak electrical load during day time. The solar power plant shall operate on the principle of direct conversion of sunlight to electrical energy by employing photovoltaic technology.

3.2 BENEFITS

The solar photovoltaic system should provide the following benefits:

I. VOLTAGE SUPPORT

The PV system will reduce the power drawn from grid and prevent the voltage drop which is generally experienced at the time of switching on of large inductive loads. The system shall also supply power close to unity power factor there by improving the grid quality and increasing its capacity.

II. SOCIAL BENEFITS

By realization of the untapped Solar energy, carbon dioxide and other toxic gas emission can be lowered by significant quantity and there by saving our environment through mitigation of carbon emission and subsequently combat climate change.

3.3 LOCATION OF SITE

Location	:	New campus of RCB/THSTI in NCR- Biotech Science Cluster, 3 rd Milestone (towards Gurgaon) Vill- Bhankri, Gurgaon-Faridabad Expressway, Faridabad (Haryana).
Site Access	:	By Road
Latitude & Longitude	:	28.39 Latitude & 77.27 Longitude

Note: The height of support structures shall be such that there shall be sufficient clearance for solar PV array to remain shadow free, prevent shadow of front structures to fall onto

the one installed behind. The row space would also allow easy access to array for cleaning and repair.

3.3.1 Solar Insolation level / Temperature

Modules alignment and tilt angle shall have to be calculated to provide the maximum annual energy output. Average solar insolation (Daily mean Global Horizontal) and ambient temperature (Maximum averaged over month) at site may be assumed to be:

Month	Average Ambient Temperature deg C	Horiz. Radiation kWh/m2/day
Jan	22.40	3.63
Feb	24.30	4.67
Mar	24.90	5.88
Apr	26.90	6.73
May	28.70	7.02
Jun	29.90	6.58
Jul	29.10	5.83
Aug	27.50	5.46
Sep	27.10	5.30
Oct	27.40	5.30
Nov	28.30	4.34
Dec	27.50	3.56

Note: Average solar radiation for Faridabad (28.39 N 77.27 E) has been mentioned above. Depending on the actual site location, modules alignment and tilt angle shall have to be calculated to provide the maximum annual energy output.

3.4.0 SCOPE OF WORK

The following section of the document describes the scope of work for 2x 25.0 Kwp Grid connect Photovoltaic system at NCR- Biotech Science Cluster Buildings, Faridabad. This job involves by means of enclosed specification “**Design, Supply, Installation, Testing & Commissioning of the Solar PV Power Plant with Five years of Operation & Maintenance.**”

The Scope of Work shall include the following,

- Design, manufacture, supply of Solar PV Power Plant
- Detailed planning of smooth execution of the project
- Performance testing of the complete system
- Warranty of the system for one-year faultless operation.
- After sales service, directly or through local contractual arrangement
- Risk liability of all personnel associated with implementation and

realization of the project

- Training of at least Four persons to be nominated by RCB /THSTI on the various aspects of operation and maintenance of the offered systems.
- The module layout as considered by the Bidder should be on the basis of clear open shadow free available on the roof of the RCB/THSTI buildings
- The Power Conditioning Unit (Central inverter), DCDB, Metering panel, Isolation panel are housed inside the proposed control room to be housed in the suitable place in the campus buildings. The requirement of conditioned air (if any) for these units is to be considered by the Bidder in terms of providing suitable enclosures and air conditioning the same.
- All cabling work (external & internal) including connection with the existing distribution system in the buildings & construction of control room (including drawing).
- The tenderer is required to visit the site and quote as per actual site conditions.

Any additional works not covered above, but necessary for the functioning of the system and required as per specification are to be incorporated. The items of minor nature, which are not mentioned, shall be incorporated by the Tenderer.

3.5. SYSTEM DESCRIPTION

The Photovoltaic (PV) Grid connect system consists mainly of 3 components: **The PV array, Module Mounting Structure and the Power conditioning Unit (PCU)**. The PV module converts sunlight to direct current (DC) power. The Module mounting structure is used to hold the module in position. The DC power is converted to alternating (AC) by the PCU and utilized for requirement within the Building and excess power can be exported to utility power grid.

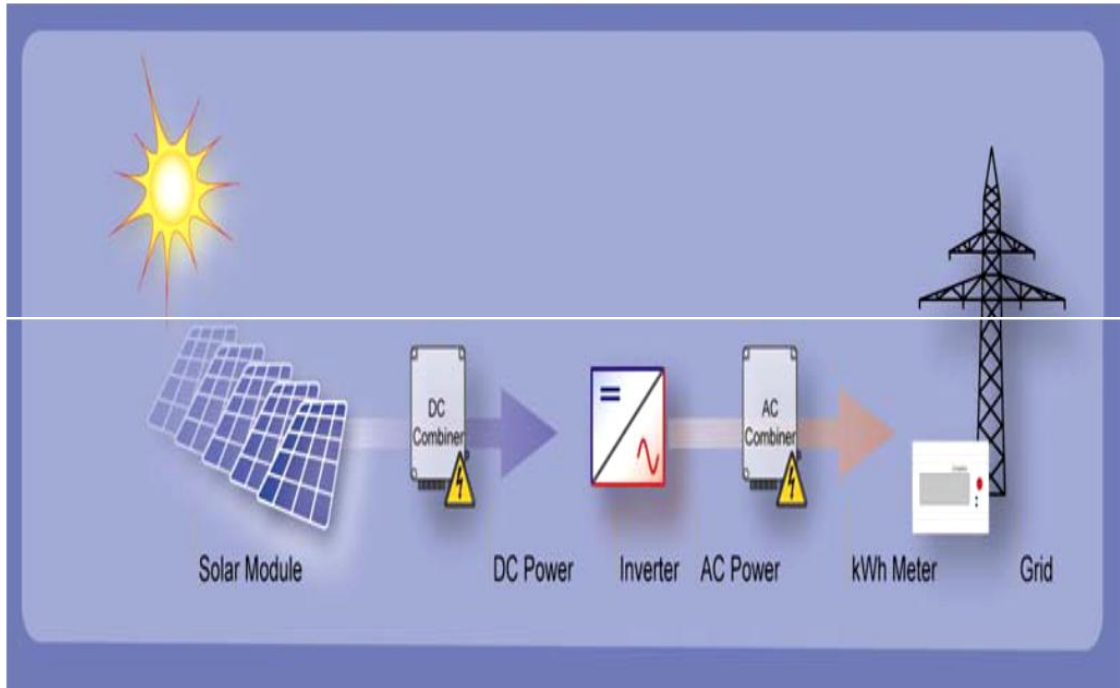


Fig: System Schematic

The multi crystalline solar modules used shall be grouped in an optimum number of strings with module-to module cable connections. The modules shall be held fixed on structures made of galvanized steel structures. The modules shall be inclined at optimum horizontal tilt angle facing due south depending on the site location. The DC output from the modules shall be fed to Array junction box and the strings are to be paralleled at Sub Main & Main Junction Boxes. The output of the main junction box shall be fed to DC distribution board (DCDB). The DC power output from the DCDB is fed to the Power Conditioning Unit (PCU). The Power-conditioning unit shall be installed in a control room converts DC energy produced by the solar array to AC energy.

The AC power output of the inverter shall be fed to the AC Distribution Board (metering panel & isolation panel) which also houses energy meter. The 415V AC output of the isolation panel is fed to the local bus bar it could be stepped up to the required voltage level through power transformer and fed to the grid AC energy is then synchronised with the grid and power is exported to the grid.

3.5.1 SYSTEM BILL OF MATERIALS

Major components of solar power plant shall consist of:

- Multi crystalline solar modules
- 25 kVA Power Conditioning Units (Central Inverter)
- Array /Sub main/Main Junction Boxes
- Support Structures
- AC Distribution Board (Metering panel, isolator panel) Bidder shall submit details of make, Quantity, Relevant Standards, Technical Catalogues etc complete for all the equipments included in its offer to meet the overall technical and operational requirements of the system.

3.6. CONTROL ROOM

The required control room shall be constructed at suitable site in campus and necessary drawings for the same are to be submitted by the Bidder for the approval of RCB/THSTI.

3.7. SPARE PARTS

One set of essential spares for the system being offered shall be included in the offer and details of the offered spares are to be included with the technical bid.

3.8. DOCUMENTATION

Four sets of installation manual / user manual shall be supplied along with the each power plant. The manual shall include complete system details such as array lay out, schematic of the system, inverter details, working principle etc. Step by step maintenance and trouble shooting procedures shall be given in the manuals.

Instruction to the Bidders

- 3.10 The Tenderer shall sign and put firm's stamp on each page of the tender.
- 3.11 The original tender document shall be submitted with all Annexure as per procedure for submission of tender on due date and time.
- 3.12 The conditional tenders will be rejected outrightly. Executive Director, RCB reserves the right to reject/ accept any or all tender without assigning any reason thereof.
- 3.13 Period of completion of work is four months from the date of issue of work order.
- 3.14 Bidders must submit their bids for all items as stated above.
- 3.15 Bids must be submitted in English language only. Incomplete, telegraphic or conditional bids shall not be accepted.
- 3.16 Prices quoted must be firm and fixed. **Which should consider 30% subsidy offered by MNRE directly to the vendor** No price variation / escalation shall be allowed. **In case subsidy for the above jobs is not contemplated from MNRE, the vendor will supply all the technical documents, complete in all respect to RCB for obtaining direct subsidy from MNRE.**
- 3.17 The bidders must sign at the bottom of each page of the bid documents at the time of submission in token of unconditional acceptance of the departmental terms and conditions, technical specifications etc.
- 3.18 Valid TIN/VAT/Sales tax clearance certificate duly attested must be submitted along with the bid.
- 3.19 Deviations in terms and conditions, Specification of material, Inspection clause etc. will not be accepted under normal conditions.
- 3.20 EMD as specified in bid may be submitted in shape of Demand Draft drawn in favour of the Executive Director, RCB payable at Gurgaon from any nationalized bank. Bids without E.M.D will not be accepted.
- 3.21 The bidders are required to furnish their offers in the price bid both in words & figures. In case of corrections ,if any, the original text/numerical must be clearly crossed out and re-written legibly above, below or on the side of the crossed out characters as per availability of space and the authorized person must put his dated initial under such corrections. In case of any conflict between figures and words, the latter shall prevail.

- 3.22 Since timely execution of works is of paramount importance, requests for extension of time shall not be ordinarily entertained.
- 3.23 Canvassing in any manner shall not be entertained and will be viewed seriously leading to rejection of the bid.
- 3.24 Certificate to the effect that the systems to be supplied are indigenous & not fully imported must be furnished.
- 3.25 Power of attorney to sign the agreement on behalf of bidders, if any, should be enclosed along with original bid documents.
- 3.26 Notice inviting tender, bid documents, prescribed technical bid, price bid, terms & conditions will form the part of the tender.
- 3.27 All pages of the bid documents must be signed & sealed by the authorized person on behalf of the bidders.
- 3.28 Bids will be accepted & will be opened as per information mentioned in the notice-inviting tender. No receipt against submission of bid shall be issued by RCB.
- 3.29 Sealed tenders may only be dropped in the specified tender box kept in the office of The Senior Manager, RCB Faridabad. Bids received after due date & time will not be considered. The bids of such firms shall only be considered who have purchased the bid documents from the RCB by depositing the prescribed fee of the bid document (Non refundable) / downloaded from the website and submitted along with cost of the tender document.
- 3.30 The bid document should be submitted in three parts as detailed below:
- 3.31 Bids should be submitted in three separate sealed envelopes addressed to the **Senior Manager, RCB Faridabad** in a sealed envelope super scribed as “Bid for Solar PV systems against DOCUMENT NO. “RCB/BSC/F.146 /SPV/2015-16/01”. First sealed envelope should contain documents of Pre – qualifications as per qualification criteria *specified in para 1.1*. It should be super-scribed with COVER -1, PRE QUALIFICATION.

Second sealed envelope should contain documents of certificate and proof as per qualification criteria *specified in para 1.2*. In addition it should contain details of Earnest Money Deposit with DD, Tenderers general information, declaration, company profile with staff details & work experience, Technical bid in prescribed format as per Annexure – I, II, III, IV and V. Also submit VAT certificate, VAT clearance certificate, latest copy of IT returns, Indignity Certificate, balance sheets and profit & loss accounts for last three years, prescribed test certificates as well as brochure, literature etc and any other bid documents duly signed & sealed. It should be super-scribed with

COVER -2, TECHNICAL BID. All the papers of bid documents except documents of Pre – qualifications and price bid duly signed should be submitted in the second envelope. Required earnest money deposit in the form of Demand Draft in favour of Executive Director, RCB payable at Gurgaon must be attached. If the bid document has been downloaded from the website, the bank draft towards cost of bid document should be submitted in a separate envelop super-scribed “cost of bid document” and kept in the main envelop.

Third sealed envelope (COVER-3) should contain Price bid as per Annexure -VI in a separate sealed envelope. It should be super-scribed with "COVER-3 FINANCIAL BID". Any condition in regard to financial aspects, payments, terms of rebate etc beyond the prescribed financial terms of RCB will make the bid invalid. Therefore it is in the interest of the bidders not to write anything extra in the Price Bid in Annexure- VI except price. The tenders may enclose the detailed item-wise, work-wise break-up (including battery backup time separately) with the price bid. However, the bids will be evaluated on the basis of consolidated price bid as per ANNEXURE -VI. Price bid should include a separate section on details of post warranty period Operation & maintenance charges and details of terms and conditions for CMC and warranty. Price bid should include all Taxes as may be applicable.

IV. PROCEDURE FOR OPENING THE BIDS

The procedure of opening of the bid shall be as under

- 4.1 First envelope, COVER-1 "PRE-QUALIFICATION" shall be opened at the time & date informed by RCB. Only qualified bidders from the pre-qualification criteria are eligible for opening COVER-2 "TECHNICAL BID" and "COVER-3 PRICE BID." The date for opening of second and third envelopes shall be communicated subsequently.
- 4.2 Second envelope, COVER-2 "TECHNICAL BID" shall be opened at the time & date informed by RCB in the presence representative of bidders, who choose to be present. Only qualified bidders from the technical bid are eligible for opening "COVER-3 PRICE BID". Third envelope, "COVER-3 PRICE BID" containing Price bid shall be opened after evaluation of technical suitability of the offer. Third envelope of only those bidders shall be opened who qualify in the technical bid. If necessary, the firms may be called for Technical Presentation of their product as per the time & date informed by RCB.
- 4.3 Any clarification on the technical specification and commercial terms and conditions may be clarified in writing from RCB.
- 4.4 Deviation of any commercial terms and condition and technical specification shall not be entertained under any circumstances.
- 4.5 Bidders may in their own interest visit the sites and undertake site visit before submitting bids. RCB will not be responsible for any incidental or consequential losses of the firms while execution and till expiry of the period of maintenance.
- 4.6 The supplied materials should strictly comply with the specifications as mentioned in the bid; otherwise the material would be liable for rejection.
- 4.7 In case of supply of any defective material or substandard material, the materials will be rejected & it is the responsibility of the tenderer for taking back & replacing the rejected materials at their own cost. In case of non-lifting of such rejected materials within a reasonable time offered by the office it will have the right to suitably dispose-off the same and forfeit the amount.
- 4.8 During the warranty period, MNRE/ State Agencies/ Users reserve the right to cross check the performance of the systems with the minimum performance levels as specified in the MNRE specifications.

V. BID EVALUATION CRITERIA

- A. The bids shall be ranked on the basis of combined weighted score for quality and cost. The tender shall be awarded to the bidder obtaining the highest total combined score in evaluation of Technical bid and Price (financial) bid.
- B. The bids shall be ranked keeping in view the marks obtained on a scale of 100 marks during evaluation of bids. The technical and Price (financial) bids shall enjoy weight age in the proportion of 60:40 i.e. 60% for the technical bid and 40% for the financial bid.
- The financial bids of only those successful bidders who obtain minimum 70% point i.e. 70/100 in Technical evaluation will be opened for **financial evaluation**.
- C. Combined scores of respective bidders shall be obtained by sum of their respective technical bid scores (out of 60) and their respective Price (financial) bid scores (out of 40).
- D. (i) **Criteria for evaluation** of the technical bid/performance of contractors for pre-eligibility

	Attributes	Evaluation
1.	Financial strength (i) Average annual (last three years) turnover 10 Crore/year 15 marks (ii) Solvency Certificate 100 lacs 05 marks	(20 marks) (i) 60% marks for minimum eligibility criteria (ii) 100% marks for twice the minimum eligibility criteria or more In between (i) & (ii) – on pro-rata basis for similar works.
2. i ii iii	Experience in similar class of work One similar works contract of Rs. 40 lacs or more or Two similar works contract of Rs. 25 lacs or more or Three similar works contract of Rs. 21 lacs or more	(20 marks) (i) 60% marks for minimum eligibility criteria of works (ii) 100% marks for twice the minimum eligibility criteria or more In between (i) & (ii) – on pro-rata basis For similar works
3.	Performance on timely attending completion. Please attach completion certificate of timely/satisfactory minimum two clients. One of whom should be PSU/Govt. organization.	(10 marks) (i) 60% marks for minimum eligibility criteria of works (ii) 100% marks for twice or more the eligibility (iii) In between pro-rata
4.	ISO/ other certification of the firm	(05 marks)

		For certification 5 points Otherwise Zero(0)
5.	Channel partner to have done Design, Supply, Installation, Testing and Commissioning with maintenance of on-line Grid Tied SOLAR PHOTOVOLTAIC POWER system with minimum cumulative capacity of 1 Mw	(20 marks) (i) 60% marks for minimum eligibility criteria of works (ii) 100% marks for twice or more the eligibility (iii) In between pro-rata
6	Local office/service center in NCR with minimum two Service Engineer.	(10 marks) (i) 60% marks for minimum eligibility criteria of works (ii) 100% marks for twice or more the eligibility (iii) In between pro-rata Nil if min criteria is not met.
7.	Performance of works (Quality) Based on report/visit/ presentation	(15 marks)
	(i) Very Good	15
	(ii) Good	10
	(iii) Fair	05
	(iv) Poor	0

Total = 100 marks

D. **(ii) Financial bid evaluation:-** The bidder quoting to lowest rate will be awarded full points out of 40. Other will be awarded pro-rata.

- 5.1 The bid of any bidder who has not complied with one or more of the conditions will be summarily rejected.
- 5.2 Conditional bids will also be summarily rejected.
- 5.3 Subsequently, the technical bids will be evaluated by the expert technical committee of the Institutes on the basis of technical bid and technical specifications. The authority for the acceptance of the tender rests with the RCB. The tenders received will be evaluated by RCB Committee to ascertain the best acceptable tender in the interest of RCB.
- 5.4 Financial bids of only the pre-qualification and technically qualified bidders will be opened for evaluation in the presence of qualified bidders.

However, RCB shall not be bound to accept the lowest or any other tender or to assign any reason for non-acceptance or rejection of a tender. RCB reserves the right to accept any tender in respect of the whole or any portion of the work specified in the tender paper

VI. GENERAL TERMS & CONDITIONS

6.1 RATE:

The offer should indicate the unit cost of the system, Installation & Commissioning charges, AMC Charges and taxes & duties separately. The unit cost must be inclusive of packing, forwarding, loading & unloading charges, cost of insurance and transportation to the destination where the system will be installed as per the work order.

6.2 SALES TAX & DUTIES ETC.:

All Taxes and duties as prescribed both under Central and State Government sales tax rules would be applicable.

6.3 EARNEST MONEY DEPOSIT:

6.3.1 Earnest money deposit as specified in Tender Notice is required to be deposited along with the bid without which the bid will not be accepted. No interest will be payable for the EMD amount under any circumstances.

6.3.2 Earnest money can be deposited in shape of a Demand Draft in favour of "Executive Director, Regional Center Biotechnology", from any Nationalized Bank Payable at Gurgaon and the proof of deposits should be attached to the bid.

6.3.3 E.M.D would be refunded to the unsuccessful Bidders after finalization of the bid without any interest.

6.3.4 The tenderer shall furnish balance E.M.D of 2% of the total contract value(**Rs One lac in this case**) at the time of i.e date of issue of work order / agreement by way of demand draft drawn in nationalized bank in favour of Executive Director ,Regional Centre for Biotechnology

6.3.5 E. M. D would be forfeited in case of non- compliance of the purchase order by the successful bidder.

6.4 SECURITY DEPOSIT (SD)/ PERFORMANCE GUARANTEE FEES:

6.4.1 S.D of 5 % of the total contract value of the bill shall be deducted at the time of final settlement of the bill.

- 6.4.2 Failure to comply with the terms of security deposit shall result into cancellation of work order without any further reference to the tenderer and the EMD shall be forfeited.
- 6.4.3 The security deposit shall be liable to be forfeited wholly or partly at the sole discretion of the RCB, if the tenderer either fails to execute the work of above projects or fails to fulfill the contractual obligations or fails to settle in full his dues to the RCB.
- 6.4.4 In case of premature termination of the contract, the SD will be forfeited and the RCB will be at liberty to recover the loss suffered by it & if additional cost is to be paid, the same shall be recovered from the tenderer.
- 6.4.5 The RCB is empowered to recover from the SD for any sum due and for any other sum that may be fixed by the RCB as being the amount or loss or losses or damages suffered by it due to delay in performance and / or non-performance and / or partial performance of any of the conditions of the contract and / or non-performance of guarantee obligations.
- 6.4.6 The security deposit shall be released to the tenderer only after contract is completed to the satisfaction of the RCB.

6.5 PROGRAMME EXECUTION SCHEDULE:

The submission of plan along with drgs and scheme of the system with in 15 days of issue of W.O

- 6.5.1 Delivery of systems at sites: 2 months from the date of handing over the site to the vendor for the purpose of erection of the PV power plant.
- 6.5.2 Installation & Commissioning: 2 months from the date of preliminary and performance guarantee inspection, physical verification and test handing over of systems for installation.
- (The above dates are extendable by another one month under exceptional circumstances.)*
- 6.5.3 Upon intimation about commissioning of the systems by the executing firm a joint inspection will be carried out by the representatives of the executing firm, RCB and other officers from the Energy department, works Department etc.
- 6.5.4 The issuance of a JCC shall, in no way relieve the executing firm of its responsibility for satisfactory operation of the power plant.

6.6 VALIDITY OF OFFER:

The offer must be kept valid for a period of six months from the date of opening of the technical bid. No escalation clause except the admissible tax component under the period of consideration would be accepted. The validity can be further extended with mutual consent as per merit of the case.

6.7 WARRANTY:

The complete system should be warranted against any manufacturing defect or bad workmanship at least for a period of 5 (five) years from the date of commissioning of the systems.

Major system subcomponent SPV modules must be warranted against any manufacturing defect ~~of~~ or bad workmanship for a period of ~~20~~ 25 years.

Warranty certificate to the above effect must be furnished along with the commissioning reports.

Any defect noticed during warranty period should be rectified/replaced by the supplier with free of cost upon due intimation by RCB.

Bidder shall without prejudice to any other clauses of the order repair/replace the defective parts and restore the system to satisfactory working /performance within three days of intimation of fault without any additional cost to the department within the period of CMC.

CMC will be valid for five years from the date of satisfactory installation /commissioning/ operation of the plants.

In case the supplier fails to rectify / replace the defective / damage equipment including transit damages, shortage within 7 days from the date of intimation of such shortage / damages, they shall have to pay penalty to the Department/ beneficiary as per details given in break down/corrective maintenance.

The maintenance service provided shall ensure proper functioning of the system as a whole. All preventive/routine maintenance and breakdown/corrective maintenance required for ensuring maximum uptime shall have to be provided by the Bidder. Accordingly, this shall have two distinct components as described below.

This shall be done by the company at least once in every three months and shall include activities such as, cleaning and checking the health of the SPV system, cleaning of module surface, tightening of all electrical connections, changing of tilt angle of module mounting structure and any other activity that may be required for proper functioning of the SPV system as a whole.

Breakdown/Corrective Maintenance

Whenever a complaint is lodged by the user, the bidder shall attend to the same within a reasonable period of time (03 days) and in any case the breakdown shall be corrected within a period not exceeding seven days from the date of complaint. If more than 07 days are taken after registering of complaint, then Bidder has to pay Rs. 1000/- for each system for each day till the problem is rectified subject to a maximum of the cost of the System This money shall be deposited to the account of **Executive Director, RCB.**

For carrying out the maintenance effectively, before placing the firm supply order, the Bidder shall have to establish at least **one Office cum Service Centre in the name of the firm for each division of the state wherein 1-2 local employees are to be appointed by the firm depending upon the quantum of work order.** These offices are to be run by the firms and not by the local dealers whose services could be used for district wise service centres. In case of Public sector undertakings necessary arrangements are to be put in place for providing proper service network.

The bidder shall maintain the following facilities at the local Service Centre for ensuring highest level of services to the end user:

- i) Adequately trained manpower, specifically trained by the bidder for carrying out the service activities.
- ii) Adequate spares for ensuring least down time of an individual system.

Bidder shall furnish details of infrastructure that are presently available for establishing of Service Centers.

Training Programs, after Sales Service and Availability of Spare Parts:

The responsibility of organizing training program will rest on the successful bidder. The training program will be organized in consultation with RCB/Consignee. The training program will focus on operation and maintenance of SPGs. Printed CATALOGUES should be made available in English by the Bidder regarding the operation and maintenance of their SPGs.

The Bidder shall depute authorized Service Engineer within 2 days from the date of the intimation of fault, and establish sufficient inventory of spares in the District/State to provide satisfactory and uninterrupted services during the warranty period.

GUARANTEED GENERATION:

The tenderer shall give a guaranteed generation of minimum 3 units (kWh) per kW per day from SPV Power Plant during 300 sunny days in a year during Operation & maintenance contract period. Otherwise, tenderer have to pay an amount of ~~Rs.50~~ **Rs. 30/-** per unit as compensation for the number of units not supplied against the guaranteed generation. The tenderer shall provide sealed & tested energy meter at consumption side of SPV Power Plant.

Tenderer should quote the guaranteed generation in the offer. Daily reports of installed system duly certified by concerned authorized RCB officer such as Coordinator of the Project/Concerned in charge of the project will be submitted by the tenderer.

6.8 PENALTY AND TERMINATION OF CONTRACT:

The systems shall be supplied, installed and commissioned within the scheduled time. If the supplier fails to adhere to the schedule, RCB shall without prejudice to its other remedies under the contract deduct from the contract price as liquidated damages a sum equivalent to 1% of the delivery price of the delayed goods or unperformed services for each week of delay until actual delivery or installation/commissioning up to a maximum deduction of 10% of the contract price for delayed goods or installation and commissioning. Once the maximum is reached (i.e. 14 weeks of delay) RCB may consider termination of the contract and forfeit the security deposit without prejudice to the other remedies of the contract.

However, Competent Authority, of **Regional Centre of Biotechnology** may at his own discretion allow reasonable time extension upon written application of the supplying firm. If the delay is considered intentional or due to negligence of the vendor time extension can be allowed with imposition of penalty. If the delay is considered to be genuine time extension can be allowed without imposition of penalty.

6.9 FORCE MAJEURE:

The supplier of the SPV system shall not be charged with liquidated damages nor shall his security for performance be forfeited when failure of the supplier in making delivery is due to any event beyond the control of the supplier and could not have been foreseen, prevented or avoided by a prudent person. These include, but are not restricted to acts of God, acts of public enemy, acts of Government, fires, floods, epidemics, strikes, freights, embargoes and unusually severe weather.

6.10 INSPECTION:

6.10.1 Pre delivery inspection of solar PV modules and other major components will be carried out by a team of designated officials of RCB, and any other department as may be considered appropriate at the factory site of the vendor.

6.10.2 RCB has the right to have the tests carried out at its own cost by an independent agency at any point of time.

6.10.3 Tenderer shall inform **Regional Centre of Biotechnology** in writing when any portion of the work is ready for inspection giving sufficient notice to enable RCB to send representative to inspect the same without affecting the further progress of the work. The work shall not be considered in accordance with the terms of the contract until the competent person from RCB certifies in writing to that effect.

6.10.4 Approval of material or workmanship or approval of part of the work during the progress of execution shall not bind the RCB or in any way affect him even to reject the work which is alleged to be completed and to suspend the issue of his certificate of completion until such alternation and modifications or reconstruction have been effected at your cost as shall enable him to certify that the work has been completed to his satisfaction.

6.11 PAYMENT:

Payment will be released as follows:

1. 25% of the cost of material supplied will be released on raising the bills towards cost of supplies only on receiving panels with accessories and PCU etc.
2. 85% of the tendered cost, minus payments released against item No.1 above will be released after supply, installation & successful commissioning of the systems duly certified by Tenderer, and RCB. This does not cover CMC charges.
3. 15% of the tendered cost shall be released on submission of one month successful performance report of the system duly certified by RCB and submission of performance bank guarantee of 10% of total project cost from any Nationalized Bank valid for period of 5 years and one month.
4. CMC charges will be paid in stage manner on raising the bills.
5. Deduction :-
 - The TDS at the source will be deducted as per the Govt. rule and regulations.
 - RCB will issue necessary certificates of TDS deduction
 - 'C' / 'D' from will not issued by RCB.

6.12 EXECUTION:

Execution of work shall be carried out in an approved manner as outlined in the technical specification or where not outlined, in accordance with relevant Indian Standard Specification, to the reasonable satisfaction of the Authorized RCB Officer.

6.13 LIMITATION OF LIABILITY:

RCB, will, in no case be responsible for any accident fatal or non-fatal, caused to any worker or outsider in course of transport or execution of work. All the expenditure including treatment or compensation will be entirely borne by the Executants. The Executants shall also be responsible for any claims of the workers including PF, Gratuity, ESI & other legal obligations

6.14 DISPUTE:

For adjudication of any dispute between RCB and the bidders arising in this case, reference can be made to any Law courts under the jurisdiction of Delhi only. The Executive Director, **Regional Centre of Biotechnology** reserves the right to accept or reject any or all bids without assigning any reason thereof.

6.15 RISK PURCHASE CLAUSE:

In case the successful tenderer fails to execute the project as mentioned above RCB reserves the right to procure the similar service from the alternative source at the risk, cost and responsibility of the successful tenderer.

6.16 INDEMNITY:

Successful tenderer shall indemnify, protect and save RCB all claims, losses , costs damages, expenses, action suits and other proceedings, resulting from infringement of any patent , trade mark copy right etc or such other statutory infringements in respect of all the equipment/ software supplied by him .

CLARIFICATION OF OFFERS:

To assist in the scrutiny, evaluation and comparison of offers, the RCB may at its discretion, ask some or all tenderer for clarification of their offer. The request for such clarification and the response will necessarily be in writing. All prospective tenderer who have purchased the document shall be intimated of any amendment in writing by e-mail/post /uploading on the websites of RCB and they shall be binding on them.

I/we have carefully read & understood the above terms & conditions of the bid & agree to abide by them.

Signature of Bidder with Seal

VII) TECHNICAL SPECIFICATIONS

The general scope under this contract includes to design, manufacture, testing ,inspection, packing and forwarding, transportation up to project site, loading & unloading, storage in safe custody, erection, carrying out preliminary tests at site, commissioning, performance testing, operation and maintenance for 5 years & handing over to the purchaser all the equipment installed 25 kWp SPV Power plants at NCR-BSC, Faridabad.

7.1 System Details for one power generator for installation of 25 KW SPV Power plants (2 two to be installed):

Sl. No.	Brief Description	Units	Make
1	PV modules for a total capacity of 25 kWp as per specifications.	1 Set	TATA/BHEL/CEL/Aditi/any MNRE approved
2	SPV module mounting structure suitable for accommodating 25 kWp capacity SPV modules including foundation as per specifications on the rooftops of the various Departments.	1 Set	CPWD specifications
3	PCUs 240 415 V, 25 kVA as per specifications	1 Set	PPS/OPS/ SMA/Delta/Refusol Power Electronics or any reputed MNRE approved
4	Array Junction Boxes	1 Set	Tyco / Hensel/ spelberg
5	Main Junction Boxes	1 Set	Tyco / Hensel/ spelberg
6	Data Logging system with remote monitoring as per specification	1 Set	System as per specifications
7	DC Distribution units as per	1 Set	Siemens/ABB/Schnieder
8	AC Distribution units as per specifications	1 Set	Siemens/ABB/Schnieder Electric/L&T/Havells/HPL
9	Cables requirement as per design	Mtrs As required at site for full plants commissioning	Finolex/Polycab/Havells/HPL of reputed make as per IS standards
10	Lightning arrester complete set as per specification	1 Set	CPWD Specifications
11	Earthing complete set as per specification	1 Set	CPWD Specifications
13	Spares, tools and plant for 5 years operation and maintenance	1 Set	

14	Fuses, Transfer switches, Printed Circuit boards required for power plant		1 Set
15	Providing training to engineers and site staff for operating Maintenance and trouble shooting skills	Required members as decided by RCB	
16	Operation and maintenance of the SPV Power Plant for a period of 5 years from date of commissioning of the power plant.	1 Item	
17	Engineering, electrical drawings and installations and O&M manuals	1 Set	
18	Any other equipment required to complete the installation	1 Set	
19	Lighting arresters	1 Set	
20	Supplying structure should be MS Galvanized (BIS approved)	as per requirement	

All the items against which no make has been mentioned must confirm to ISI standards.

7.2 Lightning protection:

There shall be the required number of suitable lightning arrestors installed in the array field. Lightning protection shall be provided by the use of metal oxide resistors and suitable earthing such that induced transients find an alternate route to earth. Protection shall meet the safety rules as per Indian Electricity Act

7.3 Earthing protection :

Each array structure of the PV yard should be grounded properly. In addition the lighting arrester/masts should also be provided inside the array field.. Provision should be kept for shorting and grounding of the PV array at the time of maintenance work. All metal casing/shielding of the plant should be thoroughly grounded in accordance with Indian electricity Act./IE Rules. Earth resistance should be tested in presence of the representative of RCB after earthing by calibrated earth tester. PCU ACDB & DCDB should be earthed properly.

7.4 Fire extinguishers:

The fire fighting system for the proposed power plant for fire protection shall be consisting of:

- Portable fire extinguishers in the control room for fire caused by electrical short circuits.

- Sand buckets in the control room
- The installation of Fire Extinguishers should conform to TAC regulations and BIS standards. The fire extinguishers shall be provided in the control room and PCUs as well as on the roof top where the PV arrays have been installed.

➤

7.5 MINIMAL TECHNICAL REQUIREMENTS / STANDARDS FOR SPV SYSTEMS / PLANTS TO BE DEPLOYED DURING F.Y. 2013-14 UNDER THE PROGRAMMES OF MINISTRY OF NEW AND RENEWABLE ENERGY:

7.5.1 PV MODULES:

- The PV modules must conform to the latest edition of any of the following IEC / equivalent BIS Standards for PV module design qualification and type approval:

Crystalline Silicon Terrestrial PV Modules IEC 61215 / IS14286

Thin Film Terrestrial PV Modules IEC 61646 / Equivalent IS (Under Dev.)

Concentrator PV Modules & Assemblies IEC 62108

- In addition, the modules must conform to IEC 61730 Part 1- requirements for construction & Part 2 - requirements for testing, for safety qualification or Equivalent IS (Under Dev.)

- IDENTIFICATION AND TRACEABILITY

Each PV module must use a RF identification tag (RFID), which must contain the following information:

Name of the manufacturer of PV Module

Name of the Manufacturer of Solar cells

Month and year of the manufacture (separately for solar cells and module)

Country of origin (separately for solar cells and module)

I-V curve for the module

Peak Wattage, I_m , V_m and FF for the module

Unique Serial No and Model No of the module

Date and year of obtaining IEC PV module qualification certificate Name of the test lab issuing IEC certificate

Other relevant information on traceability of solar cells and module as per ISO 9000 series.

RFID shall be mandatorily placed inside the module laminate.

- **Validity:**

The validity of the existing Certificates/Reports /procedure shall be for five years.

➤ **Authorized testing laboratories/ centers :**

PV modules must qualify (enclose test reports/ certificate from IEC/NABL accredited laboratory) as per relevant IEC standard. Additionally the performance of PV modules at STC conditions must be tested and approved by one of the IEC / NABL Accredited Testing Laboratories including Solar Energy Centre. For small capacity PV modules up to 50Wp capacity STC performance as above will be sufficient. However, qualification certificate from IEC/NABL accredited laboratory as per relevant standard for any of the higher wattage regular module should be accompanied with the STC report/ certificate.

➤ **Details of Test Labs are given in Annexure -VII.**

(Any other Test Lab that has set – up for testing and wants to get included may contact Director, MNRE)

While applying for Testing, the Manufacturer has to give the following details:

- A copy of registration of the company particularly for the relevant product/ component/ PV system to be tested
 - An adequate proof from the manufacturer, actually showing that they are manufacturing product by way production, testing and other facilities
 - Certification as per JNNSM standards for other bought out items used in the system
- Without above proof test centers are advised not to accept the samples.

➤ **Warranty:**

PV modules used in solar power plants/ systems must be warranted for their output peak watt capacity, which should not be less than 90% at the end of 12 years and 80% at the end of 25 years.

7.5.2 Balance of system (BOS) items/ components:

- The BOS items / components of the SPV power plants/ systems deployed under the Mission must conform to the latest edition of IEC/ Equivalent BIS Standards/ MNRE specifications / as specified below:

BOS Item / System	Applicable BIS /Equivalent IEC Standard Or MNRE Specifications	
	Standard Description	Standard Number
Solar PV Lighting Systems:	Solar PV Home Lighting System Solar PV street Lighting System Solar PV Lantern	As per MNRE latest Specifications dated 09.09.2011
Charge Controller/MPPT units	Environmental Testing	IEC 60068-2 (1,2,14,30)

		/Equivalent BIS Std.
Power conditioners / Inverters ** including MPPT and Protections	Efficiency Measurements Environmental Testing	IEC 61683 / IS 61683 IEC 60068-2 (1, 2, 14, 30) / Equivalent BIS Std.
Cables	General Test and Measuring Method PVC insulated cables for working voltage up to and including 1100 V and UV resistant for outdoor installation	IEC 60227 / IS 694 IEC 60502 / IS 1554 (Pt. I & II)
Switches/Circuit Breakers /Connectors	General Requirements Connectors –safety A.C. /D.C.	IEC 60947 part I,II, III / IS 60947 Part I,II,III EN 50521
Junction Boxes /Enclosures for Inverters/Charge Controllers/Luminaries	General Requirements	IP 54(for outdoor)/ IP 21(for indoor) as per IEC 529

**In case if the Charge controller is in-built in the inverter, no separate IEC 62093 test is required and must additionally conform to the relevant national/international Electrical Safety Standards wherever applicable

➤ **Authorized testing laboratories/ centers :**

Test certificates / reports for the BoS items/ components can be from any of the NABL/ IEC Accredited Testing Laboratories or MNRE approved test centers.

➤ **Warranty :**

The mechanical structures, electrical works including power conditioners/inverters/ charge controllers/ maximum power point tracker units/distribution boards/digital meters/ switchgear etc. and overall workmanship of the SPV power plants/ systems must be warranted against any manufacturing/ design/ installation defects for a minimum period of 5 years.

DETAILS OF EARNEST MONEY DEPOSIT

(Separately typed on Tenderer Letter head is preferable & submitted in Envelope No.1)

TENDER DOCUMENT NO. RCB/BSC/F.146 /SPV/2015-16/01

Date:

To,
Executive Director
Regional center for Biotechnology,
180, Udyog Vihar Phase-I
Gurgaon-122016.

Subject: Earnest Money Deposit (EMD) for the Tender No: _____

Respected Sir,
I/We _____ (hereinafter referred to as the Tenderer)
being desirous of Biding for the work under the above mentioned Tender document
and having fully understood the nature of the work and having carefully noted all the
terms and conditions, specifications etc., as mentioned in the Tender document.

I/We feel an immense pleasure to quote our most competitive rates herewith duly
signed by me / us. I / We have quoted separately for the systems and the Earnest
Money Deposit/s has been submitted separately in Envelop 1

EMD details

Amount (Rs.) : _____

Instrument Number : _____

Date of issuance : _____

Name of the Bank : _____

Place: (Signature of Tenderer)

Name : _____

Designation : _____

Date: Seal :

TENDERER'S GENERAL INFORMATION

(To be typed separately & submitted in Envelope No.1)

To,
Executive Director
Regional center for Biotechnology,
Faridabad-121004

Subject : Tender No. **RCB/BSC/F.146 /SPV/2015-16/01**

1. Name of Tenderer _____
2. Status of Firm _____
3. Number of Years in Operation _____
4. Registered Address _____

5. Operating Address _____
(If different from above.) _____
6. Telephone Number _____
[Area Code] [Number]
7. E-mail Address & Web Site _____
8. Tele-fax Number _____
[Area Code] [Number]
9. PAN [Number] _____
[Enclosed Copy of „PAN CARD“]
10. Service Tax Number _____

[Enclosed copy of, Service Tax Registration Certificate]

(Signature of Tenderer)

Date

Name: _____

Designation: _____

Place:

Seal:

DECLARATION

(To be submitted on Rs.100/- stamp paper)

I / We, hereby declare that I / We have made myself / ourselves thoroughly conversant with the sub – soil conditions, local conditions regarding all materials and Labor of which I / we have based my / our rates of this work. The specifications, conditions and lead of materials on this work have been carefully studied and understood by me / us before submitting this Tender. I / We undertake to use only the best materials defined / approved by the Ministry of New and Renewable Energy (MNRE) GoI.

The systems will be provided as per the specifications and guidelines issued by the Ministry of New and Renewable Energy / RCB. We are bound to adhere the guidelines issued by the Ministry of New and Renewable Energy / RCB from time to time. We also hereby committed that if in future MNRE make any changes in the specifications of the systems the same will be incorporated in the present Tender projects. We hereby agree that the work will be executed within the cost of Tender mentioned in the financial bid and there will be no escalation in cost for any reason thereof. We also agree that if we fail to complete the work and drop the work in middle, **Regional Center for Biotechnology, Gurgaon** shall have right to recover the full amount from us. I / We shall accept any amendments made by RCB from time to time during total project completion period including 5 years Operation & maintenance contract (CMC).

I / We am/are also committed that we shall complete the work within stipulated time period specified in the work order for any work assigned by Order Issuing Organization. We will not ask for any further time extension.

I / We am / are bound to work as per Tender and work Order issued by RCB for this work with 5 years Operation & Maintenance Contract. In case of failure of the same, we shall be responsible for any loss and for the action taken by competent Authority of RCB resulting to ban to work and black-listing.

I / We shall comply with the provision of Contract Labour. (Regulation and Abolition) Act 1970, Minimum Wages Act. 1948, Payment of Wages Act. 1963, Workmen’s Compensation Act. 1961, the Contract Labour (Regulation and Abolition) Act, 1979 and all other related Acts and any modification thereof or any law relating thereto and rules made there under from time to time. RCB shall not be responsible in this regard.

I / We shall be wholly responsible for any accident or any unusual/ unexpected circumstances held during the execution of work & also during the CMC period of 5 years.

(Signature of Tenderer)

Date

Name : _____

Designation : _____

Place :

Seal :

COMPANY PROFILE WITH STAFF DETAILS & WORK EXPERIENCE

(To be typed separately & submitted in Envelope No.2)

A) Information :	
Name of Company :	
Address of Head Office :	
Contact Person :	
Telephone :	
Telefax :	
E-Mail :	
No. of Branches (Dealers) and their address	
Address for Correspondence :	
Contact Person :	
Telephone :	
Telefax :	
E-mail :	
B) Business Organization : (Please tick wherever applicable & attach all supporting documents)	
Sole proprietorship	
Private Limited	
Public Sector Undertaking	
Limited Company	
Joint Venture	
C) Business Management : Attach Corporate Organization Chart with Name	
D) Total Number of Employees Employed :	
1) At Head Office	
2) At Branch Office	
3) At Site	
E) Is Your Organization a Subsidiary of Another Company?	Yes/No
If Yes, of whom?	
F) Financial Capability :	
Annual Turnover Last 3 Years: Attach Balance sheets of last 3 years. Rs.	
Projected this year	
Last year	
One year before last year	
Two year before last year	
Three year before last year	
Four year before last year	
Name and address of the bankers with Contact person and contact numbers.	
G) Whether your company hold following certificates:	Yes/No
ISO 9001-2000	
OHSAS - 18001-1999	
If No, do you substantiate a need to have them	Yes/ No
H) Are there any Litigations/ Court cases against your company?	Yes/ No
If yes, give details :	
I) Any other information that you want to give (may attach separate	

WORK EXPERIENCE

Name of the Organization :								
List of works completed in last 3 years :								
Sl. No.	Name of the Project	Name and address of the Client	Contact telephone no's of the Client	Major Items of the Work	Value of the work in Rs. /-	Start Date	Due Date of Completion	Actual completion Date

Note : 1. If Actual completion date is beyond the Schedule completion Date, please give reasons for the delay.

Note : 2. Attach relevant completion certificates document for works in previous 3 years.

Authorized Signatory

Company Seal

Date :

Place :

TECHNICAL BID

NAME OF WORK: “Design, Supply, Installation, Testing and Commissioning of Two numbers of each 25 kWp Solar Photovoltaic Power Plants with aggregated capacity of 50 kWp with Five Years of Operation & Maintenance Contract”

We confirm the following technical specification.

Sl. No.	Item Description	Item Description
1	SPV modules for a total capacity of 25 KWp as per specifications.	
	a. Capacity	
	b. Make	
	c. Module	
	d. No. of SPV Modules	
2	SPV module roof top mounting structure suitable for accommodating 25 KW capacity SPV modules including foundation as per specifications on rooftop	
3	PCUs as per specifications Grid tie Inverter	
4	Array Junction Boxes - Not required	
5	Main Junction Boxes - Not required	
6	Data Logging system with remote monitoring as per specification	
7	DC Distribution units as per specifications - Not required	
8	AC Distribution units as per specifications	
9	Fire extinguisher in accordance with BIS codes for electrical short circuit fires along with sand buckets - Not required	
10	Lightning arrester complete set as per specification	
11	Earthing complete set as per specification	
12	Spares, tools and plant for 5 years operation and maintenance	
13	Fuses, Transfer switches, Printed Circuit boards required for power plant	
14	Providing training to engineers and site staff for operating Maintenance and trouble shooting skills	
15	Operation and Maintenance of Solar Power Plant for a period of 5 years from date of commissioning of the power plant.	
16	Any other equipment required to complete the installation	
17	Solar Charge Controller	

19	Power Conditioning Unit (As per design specification given in tender which includes charge controller, inverter & Grid charger. The output power should be on 3 Phase)	
20	Cabling with casing capping	
21	Transmission, Distribution & point writing - Not required	
22	Monitoring, Control & protection device	
23	Energy meter (tested by authorized Institute)	
24	Metering at generation site	
25	Metering at consumption site - Not required	
26	Control Room - Not required	
27	Spares (List of minimum essential spares to be stored by the Vendor to ensure timely service to RCB units.	
28	Supplying structure should be MS Galvanized (BIS approved)	

Signature of the Bidder with seal

FINANCIAL BID

NAME OF WORK: “Design, Supply, Installation, Testing and Commissioning of Two numbers of each 25 kWp Solar Photovoltaic Power Plants with aggregated capacity of 125 kWp with Five Years of Operation & Maintenance Contract”

The cost of SPV power plant shall includes SPV Power Plant including complete set up in the control room, cost wiring, switches, MCBs, fuse, etc. as per their respective technical specification. The cost details for Two SPV power plants with aggregate capacity of 50 kWp should be submitted as follows:

Sl. No.	Name of the Work	Capacity	Cost of SPV Power Plant including complete set up in the control room [A] (Cost of Material + Cost of installation and commissioning, testing at the site) + Cost of CMC with 5 yrs. [B] + Cost of providing manpower for same [C]
1	“Design, Supply, Installation, Testing and Commissioning of Two numbers of each 25 kWp Solar Photovoltaic Power Plants with aggregated capacity of 50 kWp with Five Years of Operation & Maintenance Contract” (as per site conditions) <i>As per tender Document</i>		<i>quote separately as [A] + [B] + [C]</i>
	<i>(i) RCB Building</i>	<i>25 kW</i>	
	<i>(ii) THSTI Building</i>	<i>25 kW</i>	
Total cost		<i>50 kW</i>	

Rupees (in words)

Signature of the Bidder with seal

Accredited Test centers for MNRE Online Grid Programme

Lab/ Organization	PV Module	Lighting Systems		Inverter > 100 W		Charge controller	
		As per MNRE specifications	Environmental	Efficiency	Environmental	Protections	Environmental
SEC	Yes (IEC 61215 up to 100 Wp) NABL Accredited	Yes MNRE Accredited	Yes (including IP) MNRE Accredited	Yes (up to 10 kVA) MNRE Accredited	Yes (including IP) MNRE Accredited	Yes MNRE Accredited	Yes (including IP) MNRE Accredited
ERTL (east)	STC Test Facility MNRE Accredited	Yes NABL/ MNRE Accredited	Yes NABL/ MNRE Accredited	Yes NABL/MNRE Accredited	Yes NABL/ MNRE Accredited	Yes NABL/ MNRE Accredited	Yes NABL/ MNRE Accredited
ETDC (B)	Yes (IEC61215) under ICEEE-CB, IEC 61701 (up to 100 Wp) NABL Accredited	Yes NABL/ MNRE Accredited	Yes NABL/ MNRE Accredited	Yes (up to 3 kVA) NABL/ MNRE Accredited	Yes NABL/ MNRE Accredited	Yes NABL/ MNRE Accredited	Yes NABL/ MNRE Accredited
CPRI (B)	No	Yes NABL/ MNRE Accredited	Yes NABL/ MNRE Accredited	Yes (up to 10 kVA) NABL/ MNRE Accredited	Yes NABL/ MNRE Accredited	Yes NABL/ MNRE Accredited	Yes NABL/ MNRE Accredited
ERTL (N)	No	Only Electronics & luminaire NABL Accredited	Yes NABL Accredited	Yes (up to 5 kVA) NABL Accredited	Yes NABL Accredited	Yes (up to 5 kW) NABL Accredited	Yes NABL Accredited
UL (B)	Yes (IEC61215) IEC 61730 Pt.II and IEC 61701 (up to 400 Wp) NABL Accredited	Yes (except battery) NABL Accredited	Yes NABL Accredited	Yes (up to 6 kVA) NABL Accredited	Yes NABL Accredited	Yes (up to 6 kW) NABL Accredited	Yes NABL Accredited

TUV Rhineland	Yes (IEC61215) & IEC 61730 Pt.II (up to 400 Wp) NABL Accredited	No	Yes NABL Accredited	Yes (up to 10 kVA) NABL Accredited	Yes NABL Accredited	Yes (up to 10 kW) NABL Accredited	Yes NABL Accredited
Inter Tek	No	Only Electronics & luminaire NABL Accredited	Yes NABL Accredited	Yes (up to 5 kVA) NABL Accredited	Yes NABL Accredited	Yes (up to 5 kW) NABL Accredited	Yes NABL Accredited

CHECK LIST

Documents to be submitted in **Cover No: 1 - Super scribe (PRE-QUALIFICATION)**

1. PV module test certifications IEC 61215/ IEC 61730/ IEC 61731/ IEC 61732
2. Chanel partner certification
3. Experience proof of MNRE allocation of 250 kWp & above
4. Proof of business certificate of minimum 7 years
5. A grade electrical license certification
6. ISO 9001-2008 or 14001 2004 certification
7. Govt. experience if any
8. **Cost of tender document Fee of Rs.1500/- in the form of a demand draft/ pay order in favour of "Executive Director, Regional Centre for Biotechnology", payable at Gurgaon, from nationalized bank only.**
9. **Details of Earnest Money Deposit as format given in tender document at ____ Earnest Money Deposit (EMD) refer page 34 Annexure-I**

If any of the documents is not submitted in envelope 1, the tender will be rejected.

Documents to be submitted in **Cover No: 2. - Super scribe (TECHNICAL BID)**

1. Original tender document duly signed and stamped on each page ____
2. Name of authorized person (power of attorney) for submitting the document.
3. Name of the Banker if any
4. Undertaking/Declaration on Rs. 100/- stamp paper refers Annexure-III.
5. Copy of latest copy of income Tax returns, PAN number, registration under VAT, VAT clearance certificate, ref page no 6.
6. Information on Infrastructure for maintenance work
7. General Information of the firm refer Annexure II.
8. Profile, Staff Details and Experience Annexure IV.
9. P & L, Balance sheets or certificate from CA for indicating the turnover of during last 3 years.
10. Experience Certificate showing stipulated work of at least one crore
11. Copies of the satisfactory commissioning reports for SPV power plants of total minimum 250kW capacity duly signed by the user.
12. Detail drawings of mounting structure Solar PV power plant and other structures like control room etc.
13. All other documents as per the tender document.
14. Technical bid details as per Annexure V.

If any of the documents is not submitted in envelope 2, the tender will be rejected.

Document to be submitted in **Cover No: 3 - Super scribe (FINANCIAL BID)**

1. Financial bid/ offer in prescribed format for system / systems tendered refers Annexure- VI
2. Detailed work-wise / item-wise break -up

Note:- Tenderer should submit the complete tender document and other required documents to be attached as per the list mentioned and in the order