

राष्ट्रीय प्रतिरक्षाविज्ञान संस्थान

जैव प्रौद्योगिकी विभाग, विज्ञान और प्रौद्योगिकी मंत्रालय, भारत सरकार का स्वायत्त अनुसंधान संस्थान
अरुणा आसफ अली मार्ग, नई दिल्ली-110067

NATIONAL INSTITUTE OF IMMUNOLOGY

An Autonomous Research Institute of the Department of Biotechnology, Ministry of Science and Technology,
Government of India

Aruna Asaf Ali Marg, New Delhi-110067
(Ph. No. 011-26171121-45 & 26717010-19)

निविदा दस्तावेज़/TENDER DOCUMENT

FOR

एनआईआई, नई दिल्ली में ग्रिड से जुड़े छत के ऊपर सौर ऊर्जा
संयंत्रों के डी.एस.आई.टी.सी का कार्य। /**DSITC of Grid connected
roof top solar power plants at NII, New Delhi.**

राष्ट्रीय प्रतिरक्षाविज्ञान संस्थान

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NII/EE/Elect/230/LTN/17-18/53

Date 06.02.18

लिमिटेड निविदा सूचना/Limited Tender Notice

Sealed tenders are hereby invited in two parts, (I-Technical Bid and II- Price Bid) on behalf of the Director, NATIONAL INSTITUTE OF IMMUNOLOGY, Aruna Asaf Ali Marg, JNU Campus, New Delhi-110067 for the work “**DSITC of Grid connected roof top solar power plants at NII, New Delhi**” from **specialized agency executed similar nature of works in any Central Govt./State Govt./PSU/Autonomous bodies and other Govt. Departments**, as per schedule of work and General Terms & Conditions available on the Institute’s website www.nii.res.in and **CPPP web site.**

1. Name of Work : “**DSITC of Grid connected roof top solar power plants at NII, New Delhi**”
2. Estimated Cost : ₹ 7,13,000/-
3. Earnest Money : ₹ 18,000/-
4. Last Date of sale of tender : 05.03.18
5. Last date of receipt of tender : 06.03.18 (up to 3.00 PM)
(Both Technical & Price Bids)
6. Date of opening of tender : 06.03.18 (at 3.30 PM)
(Technical Bid only)
7. Time for completion of job : 30 days
8. Cost of tender : ₹500/- (Non- refundable. However, in order to promote wider participation and ease of bidding, no cost of tender document may be charged for the tender documents downloaded by the bidders).
9. **Prequalification criteria:**
 - a) **Only specialized agency executed similar nature of works in any Central Govt./State Govt./PSU/Autonomous bodies and other Govt. Departments needs to apply.** A proof to this effect must be submitted along with the technical bid.
 - b) Agency should be registered MNRE, SECI, PWD/CPWD/MTNL/MSME/Central Govt./State Govt./PSU/Autonomous bodies and other Govt. Departments in solar power plant category or for installation of solar power plant.
 - c) The agency should have executed at least one similar works of value not less than ₹ 5.7 lakh **or** two similar work not less than of ₹ 3.56 lakh each **or** three similar work not less

than of ₹ 2.85 lakh each in any Central Govt./State Govt./PSU/Autonomous bodies and other Govt. Departments during last **seven financial years** (Similar work means DSITC/SITC of solar power plant/system). This may be inspected (at the risk and cost of company/agency) by the Engineer-in-charge if required. **Company/agency shall have to submit (with Technical Bid) all supporting documents i.e work order, Completion certificate (with name of work, period of work and value etc.) issued by the competent authority etc.**

- d) The agency should have competent personnel stationed in the office/service centre in Delhi/NCR. The service centre in Delhi/NCR must also be stocking spares for providing prompt services during contract period/defect liability/guarantee period and after that if required by the Institute. **A proof to the effect must be furnished.**
- e) The agency shall submit copy of balance sheet/ P&L Account/ITR for the assessment year i.e 2015-16, 2016-17 & 2017-18
- f) The agency shall visit/examine the site as per given time schedule or prior appointment and submit duly filled & signed Annexure-II counter signed by Ex. Engg or his representative. **[non-submission of certificate (duly signed by Engg-in-charge) by bidder treated as unresponsive bid and disqualified automatically].**
- g) The bidder shall attach copy of GST registration number.
- h) The bidder shall attach copy of agency/company RTGS details
- i) An affidavit in a e-stamp paper of ₹ 50/- to the effect that ‘ Specialized agency’ undertakes that :
 - (i) **There is no complaint against me/us (Tenderer/Bidder) from any of the Govt. Depts. / Govt. Institutions etc. towards delaying of execution of work related to solar power plant/system etc or ‘delay/non-attending of complaints during AMC/CAMC of solar system during last three years.**
 - (ii) The documents submitted by the bidder are genuine and undisputable and in the event of it coming to notice at a later date that the documents are not genuine, Bidder shall be liable for action and such compensation payable to NII as may be decided by the Institute.
 - (iii) The Tenderer/Bidder will not withdraw his/their Tender after opening of technical bid and if done so; his/their EMD may be forfeited.
 - (iv) The Tenderer/Bidder will not sublet the work (if awarded to his/their Bidder) and if it does so; the penalty shall be payable by his/their Bidder to NII as may be decided by the Institute.

Copy of all documents of pre-qualification criteria and as asked for in the tender may please be attached with the Technical Bid ONLY. In case of shortfall of any documents/cost of tender/EMD, tender will summarily be rejected and no queries will be entertained in this regard. Decision of the NII authority shall be final in this regard. ALL DOCUMENTS PERTAINING TO THE REQUIREMENT OF THE PREQUALIFICATION CRITERION WILL BE FURNISHED IN THE ‘TECHNICAL BID’S ENVELOPE ONLY.

The offer shall remain open for at least 120 days from the date of opening of Price Bids. The cost of tender and Earnest Money shall be accepted only in the form of Demand Draft/Pay order drawn in favour of the ‘Director, NII’ & payable at New Delhi, failing which the bid will summarily be rejected.

(कार्यपालक अभियंता)

सामान्य नियम और शर्तें/GENERAL TERMS AND CONDITIONS

Name of Work: - एनआईआई, नई दिल्ली में ग्रिड से जुड़े छत के ऊपर सौर ऊर्जा संयंत्रों के डी.एस.आई.टी.सी का कार्य। /**DSITC of Grid connected roof top solar power plants at NII, New Delhi.**

1. The work shall be done as per the instruction and prior approval of Engineer-in-charge of National Institute of Immunology (Hereinafter referred to NII).
2. The bidders may visit/examine the site and its surrounding from 12.02.18 to 05.03.18 on any working day between 2:00 PM to 04:00 PM by prior appointment with the Engg-in-charge to assess the accessibility and assess the scope of works before submitting their offer. No claims later on in regard to the site and its surrounding or any matter relating thereto shall be entertained. The bidders shall arrange & maintain at his (their) own cost all materials, Tools & Plants, security (for their man/materials), storage for material and facilities to the workmen for executing the work. **A certificate for the site inspection should be duly signed by Engg-in-charge as per annexure-II (non-submission of certificate (duly signed by Engg-in-charge) by bidder treated as unresponsive bid and disqualified automatically).**
3. The cost of tender document is ₹ 500/- (**Non-refundable**). In order to promote wider participation and ease of bidding, no cost of tender document may be charged for the tender documents downloaded by the bidders. The above mentioned cost of the tender document will have to be paid through a separate **Demand-Draft drawn in favour of “Director, NII” payable at New Delhi** along with the Technical Bid, failing which the bid will summarily be rejected.
4. An Earnest Money Deposit [**EMD, (No exemption on EMD)**] of ₹ 18,000/- (**Rupees Eighteen Thousand Only**) has to be enclosed along with the Technical Bid (Part-I). The EMD shall be only in the form of **Demand Draft drawn in favour of “Director, NII”**, payable at New Delhi, along with the Technical Bid, failing which the bid will summarily be rejected. No Cheque / Cash shall be accepted as EMD. However, EMD exemption shall only be allowed (on submission of valid documents as per LTN conditions) to the agency registered with the MSME/NSIC/GeM etc for solar system and full filled pre-qualification criteria clause No.9 (a), (b) & (c).
5. The rates mentioned in the financial bid shall be inclusive of all WCT, GST, Duties, Octroi, Packing, Forwarding, Cartage, Insurance, Loading-unloading, road permit/state entry permit and Delivery, Installation, Testing , Commissioning, etc at site including temporary constructional Storage, Risks, Overhead Charges, General Liabilities/Obligations etc and any other taxes as applicable. Any variation in the above said taxes till the completion of the work will also be in the bidder's account.
6. The bidder shall attach copy of PAN Card.
7. The bidder shall attach copy of GST registration number.
8. The bidder shall attach copy of company RTGS details.
9. Duly sealed tenders shall be dropped in the tender box placed at the reception counter of the Main NII building. Technical Bid **MUST** contain one Xerox copy of the unfilled bid document duly signed and stamped on each page as a token of acceptance of all terms and conditions /clauses of the tender enquiry.

10. The conditional bids shall not be considered under any circumstances and rejected without any notice.
11. All bids shall be the property of NII, and contractors will lay no claim whatsoever on the same.
12. Director, NII reserves the right to reject any or all the tenders in full or in part without assigning any reasons whatsoever, and the decision of the NII in this regard will be binding on all the bidders. Bidders not complying with any of the provisions stated in this tender document are liable to be rejected. Director, NII reserves the right to accept or reject any tender without assigning any reason and does not bind himself to accept the lowest tender.
13. Payment terms as follows: -
 - a) No advance payment will be made.
 - b) The payment shall be made after successful completion and handing over of work in all respect.
14. Income Tax and surcharge will be deducted as per Govt. of India rules.
15. No Tools & Plants shall be supplied by the NII.
16. Successful bidder shall deposit an amount equal to 10% of the tendered and accepted value of the work as performance guarantee in the form of DD/BG/PBG/warranty bond within 10 days of issue of award/LOI letter. **The performance guarantee shall be remain valid and/or renewed/extended for a period of SIXTY DAYS beyond the date of completion of defect liability period.** The Performance security shall be released after successful completion of above mention period with the compliance of entire obligations in the contract.

In case the successful bidder is not able to furnish the PBG for 5 year of validity. Then PBG with initial validity period of 2 year may also be accepted by NII provided the successful bidder shall renew/extend the PBG/BG, 30 days before the expiry of the same. If the successful bidder does not extend the PBG, the same shall be forfeited by NII without any notice.
17. Earnest Money Deposited by the successful bidder shall be converted into security deposit or release after submission of performance guarantee under clause 16 above.
18. The agency shall carried out monthly visit/inspection/maintenance with materials and labour (with prior approval of Engineer-in-charge) of entire system and attend unlimited calls/break-down calls during the contract period. Thoroughly check/service/maintenance entire system three times in a year with prior approval of Engg-In charge.
19. The rates quoted by agency shall be valid till the completion of work.
20. Any violation of instruction/agreement or suppression of facts will attract cancellation of agreement without any reference or any notice period and in such case the amount of earnest money/P.G/warranty bond will be forfeited.
21. Time allowed for completion of work shall be **30 days** which shall be reckoned from tenth day from the date of award letter or letter of intent.

22. In case the successful bidder resiles from the offer within the validity of tender, the earnest money will be forfeited. Similarly if successful contractor fails to commence the work within 20 day from the date of issue of award letter, the amount of earnest money will also be forfeited besides blacklisting the firm.
23. Time allowed for the work shall be strictly followed otherwise the bidder shall be liable to pay compensation at the rate of **1.5%** of the tendered value of the work per week of delay on the part of the bidder subject to a maximum of **10%** of the total tendered value of work. The decision of competent authority of NII or the Director on the delay shall be final and binding.

However, for any reason beyond the control of the bidder the extension of time may be granted upon application by the bidder in prescribed format. No claim for any compensation during the extended period shall be entertained and the NII's decision in this regard shall be final.

24. If bidder at any time makes default during currency of work or does not execute any part of the work with due diligence or Commits default in complying with any of the terms and conditions of the contract and does not initiate any remedy for it or takes effective steps for its remedy or Fails to complete the work(s) or items of work with individual dates of completion, on or before the date(s) so determined, and does not complete them within the period specified in the notice given in writing in their behalf by the Engineer-in-charge.

The Engineer- in-charge without prejudice to any other right or remedy against the bidder which have either accrued or accrue thereafter to the Government, by a notice in writing to take the part work / part incomplete work of any item(s) out of his hands and shall have powers to take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or Carry out the part work / part incomplete work of any item(s) by any means at the risk and cost of the bidder.

25. Director, NII reserves the right to terminate the contract without any reference or any notice period on account of poor workmanship, non-compliance of set norms/specifications for the works, delay in progress of work, violation of any contract provisions by the bidder, failure to start the work at NII, within 20 days from date of issue of Letter of Intent (L.O.I). The contract can also be terminated at the request of contractor within 10 days from the date of issue of LOI order. In such cases the bidder is liable to pay Liquidated damages @ 5% of tendered value besides forfeiting performance guaranty /security deposit/EMD.
26. NII shall be fully empowered to expel any of the bidder's staff in case of any indiscipline/misconduct/violence.
27. The bidder should take extra precaution to ensure that there is absolutely no damage to the facility/laboratories/equipments of NII during execution of work.
28. Water & electricity required for the job shall be made available free of cost by the NII. However, necessary piping, valve, wiring, cabling, lamps, switches & sockets, main switches, halogen/tube light fitting and tapping from existing line/connection including labour have to be arranged by the bidder at their own risk & cost.
29. The bidder shall supply materials at site with manufacturers test certificate and challan as desired by the Engineer-in-charge.

30. All materials brought at site shall be got approved by the Engineer-in-charge before being used. If rejected, the same shall be removed immediately. The material of only approved make shall be brought at site.
31. The bidder shall depute their own security staff for watch and ward of their materials supplied/ installed at site till the final handing over of the complete work and temporary lockable shed/Almirah etc. shall be arranged by bidder at his own risk and cost. No accommodation/ staff/ lockable space will be provided by NII under any circumstances.
32. No escalation in any form either of cost/materials/labours or any taxes shall be payable by the NII during the contract period.
33. The bidder shall be solely responsible for any accident/medical/health related liability/compensation for the personnel deployed by it at NII. The NII shall have no liability in this regard.
34. The personnel employed by the bidder will not claim any right to become the employees of NII and there will be no Employee and Employer relationship between the personnel engaged by the bidder and NII.
35. No tent or hut shall be allowed to be put up for workers to stay within the campus. The contractor is deemed to have inspected the site and thoroughly acquainted himself with the site conditions, availability of storage space for materials etc.
36. It may here be noted; that the entire staff and labour of the bidder will follow all the security instructions issued by the NII from time to time and these instructions may include the provisions to make suitable barricades or temporary wall fence to ensure that the labour confines itself to the area of the work ONLY. Serious action will be taken in case any of the bidder's workmen are found to be tampering with the Laboratory equipment and property of the NII. Suitable damages will be recovered from the bidder's bills if anyone is found to do so. All decisions of the Engineer-In Charge in respect of the same will be final and binding on the bidder.
37. On completion of all work, bidder shall remove all surplus materials & leave the site in a broom clean condition, failing which the same shall be done at bidder's risk & cost.
38. Bidder shall be responsible for disposing off the all old dismantled waste materials away from the campus. The disposal of such materials shall be done immediately after completion of work at own risk & cost.
39. The complete work shall be guaranteed for at least **FIVE year** from the date of actual completion of the work for both materials as well as workmanship. In addition of this; solar photovoltaic modules (back to back warrantee from supplier passed to NII) - 90% power output for 10yrs and 80% power output for 11-25 yrs, Inverter- 5Years with back to back warrantee from supplier passed to NII.
40. **The rates quoted by bidders should be realistic and workable for each and every items. Quoting unrealistic/unreasonable lower or higher price will be treated as non-responsive bid and will not be considered for further evaluation. The decision of NII shall be final in this regards.**
41. The bidder shall ensure compliance of all statutory laws & bye laws of the central Govt./ state Govt./Municipal authorities related to the employment of their staff and all obligations under Minimum Wage Act, Workman Compensation Act, Provident Fund & Miscellaneous Provision Act, Bonus Act & Contract Labour Act 1970 etc. NII will not be responsible for such purposes in anyway.

42. Any claim, dispute or difference arising out of or in connection with this agreement and which cannot be settled by mutual consultations, shall be referred to sole Arbitration or an Arbitrator to be appointed by Director, NII. The award of the Arbitrator shall be final and binding between the parties as per the terms and conditions of the Agreement to be executed on award of contract. The Arbitrator proceeding shall be governed by the Arbitration and Conciliation Act 1996 and shall be conducted in Delhi

The agreement is subject to the jurisdiction of the courts at Delhi.

(कार्यपालक अभियंता)

निविदा जमा करते के लिए सामान्य शर्तें/ GENERAL CONDITIONS FOR SUBMISSION OF TENDER

1.0 निविदा प्रस्तुत करना /Submission of Tender:

Tenders should be submitted in sealed envelopes in two parts separately, i.e. "**Technical Bid**" (**Part-I**) and "**Price bid**" (**Part-II**). Both the parts should be further sealed in an envelope super-scribing name of work, due date for opening, Bidder's name & address. The tender duly filled in should be sent to above mentioned address either by post or hand delivered in the tender box kept in the area of reception, NII. NII will not be responsible for tenders lost in postal transit or otherwise. It should not be handed over to any employee of the NII. Any clarifications / amendments / corrigenda etc., to LTN before last date of submission of bid will be available on our website www.nii.res.in and [website of CPPP](#). Bidder's are therefore advised to keep visiting our website. No tender shall be accepted later than the time schedule specified above. Tender once submitted will remain with the NII and will not be returned to any of the Bidder's.

2.0 तकनीकी बोली/Technical Bid (Part-I) :

In this bid, the Bidder should submit his bidder profile, organizational setup, credentials, list of plant, machinery & tools in his possession. The Bidder's are required to **attach entire LTN (except the price bid part) duly signed & stamped as a token of acceptance of LTN conditions with this bid**. NII reserves the right to visit the working site mentioned by Bidder's to find out the quality of services rendered. The following documents are essentially to be submitted with technical bid for qualifying.

- (i) Earnest Money Deposit of **₹ 18,000/- (Rupees Eighteen Thousand Only)**.
- (ii) Entire LTN (**except Price bid**) duly signed & stamped by the Bidder.
- (iii) All document as asked in the prequalification criteria.
- (iv) The bidder shall attach copy of PAN Card.
- (v) The bidder shall attach copy of GST registration number.
- (vi) The bidder shall attach copy of agency/company RTGS details.
- (vii) **Cost of tender document i.e. ₹ 500/- (Rupees Five Hundred Only)** (Non-refundable. However, In order to promote wider participation and ease of bidding, no cost of tender document may be charged for the tender documents downloaded by the bidders).

3.0 मूल्य बोली/Price Bid (Part-II):

In this bid, the bidder is required to quote his items rates/prices for the "एनआईआई, नई दिल्ली में ग्रिड से जुड़े छत के ऊपर सौर ऊर्जा संयंत्रों के डी.एस.आई.टी.सी का कार्य /**DSITC of Grid connected roof top solar power plants at NII, New Delhi**" in the schedule of work attached. The scope of work & technical specifications are provided for your reference. The quoted prices shall be **including all the taxes levied by statutory Govt. bodies. It is mandatory on Bidder to quote the rate of all items as asked for in the Price Bid (BOQ/ Schedule of work)**. Failure to adhere to this condition may lead to rejection of tender. The

Tenderer/Bidder should quote unconditional rates, neatly written without any overwriting and duly signed & stamped in all pages.

4.0 अग्रिम धन/Earnest Money :

An earnest money of ₹ **18,000/- (Rupees Eighteen Thousand Only)** has to be enclosed along with the **Technical Bid (Part-I)**. The EMD shall be only in the form of Bank Draft in favour of “**Director, NII**”, payable at **New Delhi**. No Cheque / Cash shall be accepted as EMD. EMD of the unsuccessful bidders shall be returned to them at the earliest after expiry of the final bid validity and latest on or before the 30th day after the award of the contract. The EMD of the successful agency (L1) shall be held back as security deposit.

5.0 निविदा की वैधता/Validity of Tender:

Tender shall be valid for our acceptance without any change in rates and LTN conditions for a period of 120 days from the date of opening of Price Bid.

(कार्यपालक अभियंता)

कार्य का स्कोप और तकनीकी स्पेसिफिकेशन/SCOPE OF WORK AND TECHNICAL SPEFICATION

कार्य का स्कोप/SCOPE OF WORK: -

Design, supply, installation, testing and commissioning of 10 KWp grid connected roof top solar power plant at NII with all associated items/materials. The Scope of works shall include: -

- a) All works required for proper installation of Solar PV Power Plant including necessary civil works for mounting structures of solar module, shall be done by the contractor. The entire work shall be performed on turnkey basis. All the works related to the proper installation and functioning of the systems shall have to be carried out by the contractor in the prices offered by him in price bid.
- b) The design, engineering, manufacture, supply, installation, testing and performance of the equipment shall be in accordance with technical specification or as approved by Engg-in-charge.

Any supplies which have not been specifically mentioned in this Contract but which are necessary for the design, engineering, manufacture, supply & performance or completeness of the project shall be provided by the Bidder without any extra cost and within the time schedule for efficient and smooth operation and maintenance of the plant.

- c) Design & complete installation of solar system suitable for the available space and as per site requirement.
- d) SITC of solar modules as per technical specification.
- e) SITC of solar power unit (solar Inverter).
- f) Dismantling of RCC/PCC floor, wall, shifting or re-installation of any electro-mechanical items, civil items i.e PCC, brick etc (with all materials & labour etc) required for proper installation solar plant.
- g) Welding and painting works (with all materials & labour etc) required for proper installation solar plant.
- h) Electrical works i.e SITC of cabling, inverter, cable tray, painting, junction box, complete lighting arrestor, chemical or 600x600x6mm GI earthing (double for each) , charcoal, C-class pipe, water pipe, double 25x5mmGI earth strip for solar plant. lighting arrestor etc (with all materials & labour etc) required for proper installation solar plant.
- i) The generated electricity from the Power Plant will be utilized in place of grid power DB. The necessary electric cable/connection shall be supplied/made by the bidder as per the requirement at site.
- j) All necessary electrical wiring from existing electrical distribution box up to PCU of Solar PV Power Plant and back from PCU to distribution box shall have to be done by the contractor including supply of all required materials.
- k) After completion of the proposed works, clearances of all temporary works/ materials shall be the sole responsibility of the contractor and this shall be removed immediate after the requirement of such temporary work is completed.
- l) General Aesthetics & cleanliness in regard to the installation of various systems shall have to be maintained in accordance with the aesthetics of the site.
- m) Arrangement of proper dedicated earthing mechanism and lightning arresters (with all materials) should be done at site as per the requirements of the Solar Power plant.

- n) The contractor shall supply/ install the necessary tools/instruments required for proper operation of the plant and to measure PV array Voltage, Current, Power and solar radiation.
- o) Supply and Installation of Display board of 6' X 4' size showing all technical information of SPV plant shall be done by the contractor.
- p) The complete Solar PV Power Plant shall be warranted and maintained by the contractor against any manufacturing/ design/ installation defects for a minimum period of 5-years from the date of installation and handing over.
- q) Warrantee and Maintenance period will include rectification /replacement of all the defective and consumable components/items. However all the non functional parts/ materials/ items replaced during the Warrantee period shall be the property of the contractor.
- r) After commissioning of the plant, the contractor will conduct one on-site training of the purchaser's/user's personnel regarding assembly, start-up, operation, maintenance and repairs of the Solar PV Power Plant.
- s) During 5 year's Warrantee period, the contractor will have to make all necessary arrangements including placement of required manpower at site for satisfactory performance of the Power Plant.
- t) Rectification of all the defects developed in the Solar PV Power Plant during Warrantee period shall have to be done by the contractor promptly, at the most within 3 days from the date of receipt of complaint. Periodic cleaning of solar modules. Periodic checks of the Modules, PCUs and BoS shall be carried out as a part of preventive and breakdown maintenance.
- u) For any issues related to functionality, operation & maintenance, to be resolved within 72 hours. If not attended within such stipulated time, a penalty of ₹2,000 for full month or more shall be imposed. Repetition of such instances for more than 2 times a year may lead to extend the DLP for further period of one year. This will be applicable till 5 years of DLP
- v) Immediate replacement of defective Modules, Invertors/PCUs and other equipment as and when required. If negligence/ mal-operation on part of the Bidder's operator results in failure of equipment, such equipment should be repaired/ replaced by the Bidder free of cost
- w) During Warrantee period, the contractor shall have to submit annual performance & functionality report.
- x) During the warranty period, NII will have all the rights to cross check the performance of the Solar PV Power Plant. NII may randomly pick up its components to get them tested at Govt. / MNRE approved any test center. If during such tests any part is not found as per the specified technical parameters, NII will take the necessary action to recover the losses and to black list the firm and the same may be communicated to MNRE and other nodal agencies. The decision of NII in this regard will be final and binding on the tenderer.
- y) Any other items which are not specified in this tender but required to complete the work in all respect; shall be in the bidder scope and no extra cost shall be paid for it.
- z) The system should be computable to DG power & main power (both).
- aa) The system should have protection against islanding of grid.
- bb) Metering and grid connectivity of the roof top solar PV system under this scheme would be the responsibility of the successful Bidder in accordance with the prevailing guidelines of the concerned department (if available by the time of implementation). NII could facilitate connectivity; however, the entire responsibility lies with bidder only.
- cc) The system should be made in India and meet out the Indian standard.

तकनीकी स्पेसिफिकेशन/TECHNICAL SPECIFICATION: -

| S.No | Item | General Specification | List of approved Makes |
|------|-------------------------------------|--|--|
| 1 | Solar Modules | Solar Modules of 320Wp Manufactured on Automated production Lines with greater than 16 % module efficiency | Tata, Adani, vikram, waaree or equivalent |
| 2 | Module Mounting Structure | Pre Galvanised Sheets with Excellent Corrosion Resistance, Capable of withstanding high wind speed up to150 KMPH | Reputed Make |
| 3 | Power Conditioning Unit (Inverters) | Power Conditioning Unit with MPPT Charge Controller and above 90 % Efficiency Inverter | Delta, ABB, Kaco, Refusol, SMA, Fronius or equivalent |
| 4 | Cables | 16 sq.mmx4Core XLPE insulated armoured AC cables (for main and load) and other selected based on detailed design. AC Connection/DC Connections/power cable | SECAM, CMI, Finolex, Havel's, Polycab or equivalent |
| 5 | Junction Boxes | IP 65 Protections | ABB, Siemens Hensel or equivalent |
| 6 | Protection devices | Lighting Arrestors, complete as per site requirement Earthing Protection, as per site requirement | JVM, JK, VFT, JEFF, ABB, Siemens or equivalent or Reputed Make |
| 7 | Data Logging | Daily Power Generation and Monthly report of generation will be forwarded on selected email Id's. | OEA/OEM |
| 8 | PVC pipe | PVC pipe | AKG, satia or equivalent or reputed makes |

सौर मॉड्यूल का ब्योरा/Detail of Solar Modules:

1. 320Wp Multi-Crystalline Solar Module from reputed supplier.
2. With more than 16% module efficiency, these are used in MW solar farms.
3. 72 cells module with Low ironanti refractive coated glass gains additional 2% energy.
4. Superior resistance to PID(potential induced degradation).
5. Modules that have passed reliability test (IEC standards: IEC 61215/ISI14286).
6. Upto25 Years true linear power output warranty.

| | |
|------------------------------|---|
| Peak Power (Pmax) : | 320Wp |
| Max Power Current (Imp): | 8.05 Amp |
| Short Circuit Current (Isc): | 8.74 Amp |
| No. of Cells: | 72 |
| Max Power Voltage (Vmp): | 37.28 V |
| Open Circuit Voltage (Voc): | 45.1 V |
| Tolerance | 0, +3 |
| Module Efficiency (%): | Greater than 16% |
| Glass | High transmission low iron tempered glass |
| Frame | Anodized aluminium alloy with twin wall profile |
| Junction Box | IP65/IP 67, 3 bypass diode |

इन्वर्टर का ब्योरा/ Detail of Inverter: -

The inverter should be based on outdoor type PCU (inverter) technology.

- Enhance power output than conventional inverters 6-8%.
- Designed to withstand in extreme weather conditions.
- Design life of Max. 12-15 Years.
- Greater than 90% efficiency at peak power.
- Harmonics below 1.8%.
- Data logging system allow continuous monitoring of the energy generation.
- Able run in synchronization with Diesel generator in case of grid failure.

Module Mounting Structure

Type: Fixed mounting structure with 1Mtr Height.

- Hot dip Pre-galvanized sheets that have excellent corrosion resistance.
- Capable of withstanding high wind speed up to 150 KMPH.
- Structure should be as per SECI/MNRE standards

बोलीदाता द्वारा घोषणा/Declaration by the Bidder

This is to certify that I/We before signing this tender have read and fully understood all the terms and conditions contained herein and undertake myself/ourselves to abide by them.

Enclosures:

1. DD/Pay Order No.....

2. Terms & conditions (each page must be signed and stamped with the seal)

3. Financial Bid.

(Signature of Bidder with seal)

Name:

Address:

Date:

NOTE: Submission of all the documents mentioned above along with declaration, is mandatory. Non submission of any of the documents above will render the bid to be rejected. Also, Non adhering of any of the conditions of LTN will render the bid to be rejected.

प्रमाणपत्र / अंडरटेकिंग
Certificate/Undertaking

- a) Certified that I / we have visited the site on ----- and assessed the nature and amount of work involved before submitting our offer. We will be able to execute the work within the available site condition.
- b) I undertake that I / we have visited the place of “एनआईआई, नई दिल्ली में ग्रिड से जुड़े छत के ऊपर सौर ऊर्जा संयंत्रों के डी.एस.आई.टी.सी का कार्य। /**DSITC of Grid connected roof top solar power plants at NII, New Delhi**”, and noted the entry door / approach sizes/quantities, floor space, existing electrical connections etc.. Manpower & Materials supplied by us will be suitable for in the existing location / condition with sufficient space all around. No extra cost will be claimed by me later for any difficulties/modifications involved for total execution of the solar system systems as mentioned in the tender. I also understand that the work is related with already operating/functional laboratories, so we are ready to work in day / night hour subject to availability of site/space.

(Signature of Bidder) :

(NAME):

(SEAL):

(कार्यपालक अभियंता)

Note : (i) A certificate for the site inspection should be duly signed by Engg-in-charge or his representative as per annexure-II (non-submission of certificate by bidder treated as unresponsive bid and disqualified automatically)

(ii) Above certificate/ undertaking is to be given on the Letter Pad of the Bidder.

मूल्य बोली /Price Bid (Part-II)

कार्य का नाम /Name of work: - एनआईआई, नई दिल्ली में ग्रिड से जुड़े छत के ऊपर सौर ऊर्जा संयंत्रों के डी.एस.आई.टी.सी का कार्य। /DSITC of Grid connected roof top solar power plant at NII, New Delhi.

| क्रम संख्या S.No | आइटम विवरण/ items description | मात्रा /Qty | इकाई Unit | दर/Rate | मूल्य Amount |
|---------------------|---|----------------|--------------|---------|-----------------|
| 1 | Design, supply, installation, testing and commissioning of 10 KWp grid connected roof top solar power plant with all materials. i.e solar modules of 320 Wp, Inverter with MPPT charger controller, cables, suitable size of DC/AC cabling (upto the main load DB), complete earthing & earthing strip for solar modules & inverters, isolator, MCCB, MCB, complete lighting arrestor, cabling box, junction box, cabling terminals, one week plant trial prior to commissioning & handing over, data logging, synchronisation of solar power plant with grid supply and evacuation of solar power into the local grid, pre galvanised structure capable to with stand upto 150KMPH wind speed, civil work, cable tray, painting, welding works, electrical works etc and detailed as given in technical specification and scope of work. | 1 | Set | | |

Net amount

(Rates quoted shall be inclusive of all GST & cartage etc. as mentioned under Item - 5 of General T. & C. of tender document.)

Signature of company representative:

Seal of company/agency:

(कार्यपालक अभियंता)

वारंटन बॉण्ड के लिए फॉर्मेट/FORMAT FOR WARRANTY BOND

To Director, NII

Bank Guarantee No.Dated:..... Bank Guarantee Amount
.....

Sir,

1. In consideration of Director, NII (hereinafter referred to as PURCHASER) having entered into a CONTRACT with M/S (hereinafter referred to as CONTRACTOR) bearing the contract number dated (hereinafter referred to as CONTRACT) for supply of _____ (hereinafter referred to as the "Plant/Machinery") we, (the Bank) hereby irrevocably undertake and guarantee to you to pay you all or any sum up to a maximum of, being 5% of the total price of CONTRACT to secure warranty obligations of the CONTRACTOR as per the CONTRACT. 2. In terms of the CONTRACT, the CONTRACTOR has guaranteed that the said Plant/Machinery has been built fully in accordance with the specification and will operate as provided in the CONTRACT. 3. We hereby guarantee that we shall pay to you on demand and without demur the above mentioned sum, within three days of receipt of your written demand stating that there is breach of the warranty provisions of the CONTRACT on the part of the CONTRACTOR.

4. This guarantee shall be valid until sixty days after the warranty period as per the Contract, i.e. up to (date), except in respect of defects that occurred prior to expiry of such date and notified to the CONTRACTOR as per contractual terms. Written request will be made by the CONTRACTOR to renew/extend the Guarantee prior to its expiry to cover extended warranty for defects.

5. We undertake to effect payment upon receipt of such written demand, notwithstanding any dispute or disputes raised by the SELLER in any suit pending before any Court, Tribunal, Arbitrator or any other authority, our liability under this present being absolute and unequivocal.

6. We further agree that decision of the PURCHASER as to whether there is breach of the warranty provisions of the CONTRACT on the part of the CONTRACTOR shall be final, binding and conclusive so far as we are concerned. Any approval or acceptance by the PURCHASER of the Plant/Machinery or materials or components incorporated therein shall not in any way limit the liability of the CONTRACTOR.

7. We shall not be discharged or released from the guarantee by any arrangement made between the PURCHASER and the CONTRACTOR with or without our assent or by any alteration in the obligations undertaken in the said CONTRACT or any forbearance regarding payment, time, performance or otherwise. In any case, our guarantee is limited and shall not exceed the above mentioned amount.

8. This guarantee is being furnished for release of 10% of the total contract price to the CONTRACTOR, after adjusting any amount due to the PURCHASER if any, as per the CONTRACT.

9. This guarantee shall not be discharged due to change in the constitution of either the Bank or the CONTRACTOR.

10. We,Bank, lastly undertake not to revoke this guarantee during its currency except with the previous consent of the PURCHASER in writing.

Yours faithfully,

for _____ Bank

(Authorised Signatory)

Place : _____

Date : _____

Seal of the Bank