

NTPC VIDYUT VYAPAR NIGAM LIMITED
(A wholly owned Subsidiary of NTPC Limited)



BIDDING DOCUMENTS

FOR

**Installation of 0.95 MW Grid connected Rooftop Solar
Power Projects at three units of IOL**

BIDDING DOCUMENT NO.: NVVN/C&M/RE-223/2023-24

(This Document is meant for the exclusive purpose of bidding against this Bid Document No./ Specification and shall not be transferred, reproduced or otherwise used for purposes other than that for which it is specifically issued)

Installation of 0.95 MW Grid connected Rooftop Solar Power
Projects at three units of IOL

BIDDING DOCUMENT NO. NVVN/ C&M /RE-223 /2023-24
SECTION - I (IFB)

ABRIDGED INVITATION

NTPC VIDYUT VYAPAR NIGAM LIMITED

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CONTRACTS & MATERIALS

INVITATION FOR BIDS (IFB)

FOR

Installation of 0.95 MW Grid connected Rooftop Solar Power Projects at three units of IOL

BID DOCUMENT NO: NVVN/C&M/RE-223/2023-24

NTPC VIDYUT VYAPAR NIGAM LIMITED (NVVN) invites online Bids from eligible bidders on '**Single Stage Two Envelope**' bidding basis (Envelope-I: Techno-Commercial Bid & Envelope- II: Price Bid) for aforesaid Package.

For the detailed IFB and Bidding Documents please visit at e-procurement portal <https://eprocurrentpc.nic.in> or may contact Sr. Manager (Contracts), NTPC VIDYUT VYAPAR NIGAM LIMITED, Engineering Office Complex, Plot No. A-8A Sector 24, Block A, Noida, Uttar Pradesh 201301, Email: nvvncontracts@ntpc.co.in; Tel No: 0120-4948575

Registered office: NTPC Bhawan, Scope Complex, 7, Institutional Area, Lodhi Road, New Delhi-110003, Corporate Identification Number: U40108DL2002GOI117584, Website: www.nvvn.co.in

Installation of 0.95 MW Grid connected Rooftop Solar Power Projects at three units of IOL

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FOR
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Acronyms

BDS	Bid Data Sheet
CIF	Cost, Insurance and Freight
CIP	Carriage and Insurance paid to (place)
CPM	Critical Path Method
EDI	Electronic Data Interchange
EXW	Ex factory, ex works or ex warehouse
FCA	Free Carrier
FOB	Free on Board
FOR	Free on Rail / Road
FP	Bid Forms, Procedures & attachments
GCC	General Conditions of Contract
ICC	International Chamber of Commerce
IFB	Invitation for Bids
ITB	Instructions to Bidders
SCC	Special Conditions of Contract
TS	Technical Specifications and Drawings
UNCITRAL	United Nations Commission on International Trade Law
INCOTERMS	International Rules for interpreting Trade Terms.

Note : The terms EXW, CIF, etc. shall be governed by the rules prescribed in the current edition of INCOTERMS, published by the international chambers of commerce, 38, Cours Atbert 1er. 75008, Paris, France.

SECTION - I

INVITATION FOR BIDS (IFB)

Installation of 0.95 MW Grid connected Rooftop Solar Power
Projects at three units of IOL

BIDDING DOCUMENT NO. NVVN/ C&M /RE-223 /2023-24
SECTION - I (IFB)

INVITATION FOR BIDS

NTPC VIDYUT VYAPAR NIGAM LIMITED
(A wholly owned Subsidiary of NTPC Limited)

CONTRACT & MATERIALS

INVITATION FOR BIDS (IFB) **FOR**

Installation of 0.95 MW Grid connected Rooftop Solar Power Projects
at three units of IOL
(Domestic Competitive Bidding)

Bidding Document No.: NVVN/ C&M/RE-223/2023-24

1.0 NTPC VIDYUT VYAPAR NIGAM LTD (NVVN) invites on-line bids at Government e-procurement portal of NIC (GePNIC) at website- <https://eprocurementpc.nic.in/> on Single Stage Two Envelope Basis (i.e. Envelope-I: Techno-Commercial Bid and Envelope-II: Price Bid) from eligible Bidders for aforesaid package, as per the scope of work briefly mentioned hereinafter.

2.0 BRIEF SCOPE OF WORK

The Solar Photo Voltaic (PV) installation on Rooftop of various/multiple buildings of the IOL at 3 different locations as mentioned in Annexure-A of Section-VI shall be carried out preferably on shadow free area in such a way that the generation is maximized on each building suitable for installation of Solar PV power plants. The final plant capacity shall be as per the detailed engineering and approved design of each of the building's rooftops solar. Permanent MS Staircase/ladder of minimum width 1.0m & finished with primer & weather resistant enamel paint for roof top access must be provided for each building where the Roof Top Solar PV panels are to be installed and roof access is not available.

- A. The successful bidder shall be exclusively responsible for design, engineering, testing and all other relevant activities like preliminary visual assessment of roof, water arrangements, electricity, security and determining optimal capacity for setting up of Solar PV Plants and O&M activities for 10 years.
- B. The project site shall be handed over to the bidder on as is where is basis. Before submitting his bid, the bidder should inspect and examine the site and its surroundings and should satisfy himself as to the nature of the roof, the quantities and nature of work, materials necessary for completion of the work and their availability, means of access to site and in general shall himself obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect his offer.
- C. Design, engineering, supply, installation, testing and Commissioning of the Project as per standard design and specifications and connecting to existing Mains / ACDB and interfacing internal electrical loads of Project's License's network/electrical loads. The bidder would have to take approval for the interfacing of the Project with Grid/Electrical Loads from distribution licensee/ CEIG, Net metering as applicable.
- D. All materials, manpower, scaffolding materials, machinery, tools and tackles, transportation & loading/unloading, packaging and unpackaging, safe storage, watch and ward, etc. all inclusive, shall be arranged by the bidder within the quoted price. Scope shall cover all type of transportation of materials inside the working site and manpower etc. required to execute and complete the work. Underground cabling work if required to evacuate solar project to the consumer's panels shall also be in the scope of bidder.

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- E. Bidder also to provide comprehensive Operation and Maintenance (O&M) of the plants for a period of 10 years from the date of commissioning and acceptance by NVVN. During O&M period, the bidder shall be responsible for supply of all spare parts as required from time to time for scheduled and preventive maintenance, major overhauling of the plant, replacement of all defective equipment including defective PV Modules, Inverters, Transformers etc. and maintaining log sheets for operation detail, deployment of staff for continuous operations and qualified engineer for supervision of O&M work, complaint logging & its attending. All PV modules shall be cleaned regularly, and water washed at least once a fortnight. The Minimum Annual CUF required to be achieved in the first year and subsequent years after acceptable module degradation factor of 0.7% per year are mentioned in Annexure-A of section VI in bid document.
- F. Bidder shall ensure that Project is Remote Monitoring System ("RMS") enabled. The data from such RMS enabled Projects would be monitored or analyzed remotely by NVVN and IOL. The internal data logger of the RMS system shall work on a store-and-forward mechanism. It should be able to store data in case of connectivity outage and forward the stored data once the connectivity is attained. The Bidder shall ensure data for a minimum period of one year is stored in the data logger. The RMS system must also be capable of interfacing on open protocol basis with external data loggers as may be installed by NVVN or IOL. The Bidder shall ensure that the connectivity of the Project RMS with IOL and NVVN office is always uninterrupted during O&M period and shall make all necessary arrangements for the same. IOL or NVVN reserves right to validate the authenticity of such data for which Bidder shall extend full access and its cooperation. The bidder shall arrange for Internet connection (Wi Fi / SIM or any other arrangement) and all necessary accessories for Operation of the RMS throughout the contract period within the quoted price.
- G. The bidder shall provide a suitable Solar PV module cleaning/ water washing system. The bidder shall also arrange water from the nearest service water line with necessary CPVC piping, pumping, metering or any other suitable arrangement and provide adequate number of water taps with isolating valves depending on the roof area/location. Further bidder shall provide at least one portable water pressure cleaning system for any emergency.
- H. Any fee related to registration of project / NOC / net metering from any of the state departments shall be borne by the bidder.
- I. It should be ensured by the bidder that the roofs are not getting damaged during installation and O&M period. After installation of solar PV system, the roofs should remain waterproof as before. If any damage is caused to the roof by the bidder, the same is to be rectified immediately by the bidder within the quoted price and without any additional cost to NVVN.
- J. Life-Line: The bidder shall provide suitable lifeline arrangement on the roof, to enable safety of workers while working at height during erection and O&M period. The workers working at site should have passed the Vertigo test and should have undergone proper training for safe working at height, should have been trained to use safety PPEs including Safety belts with double hooking system. The bidder shall follow the safety rules of NTPC/NVVN, as per instruction of EIC. All safety PPEs like safety shoes, helmet, belt, lifeline, fall arrester etc. are to be provided by the bidder within the quoted price.
- K. Fall arrester: As per site requirement, bidder may also have to install fall arrester and safety net to ensure safe working, the design of fall arrester and specifications of safety net to be installed shall be submitted to NVVN for review prior to start of work to ensure safety of workers during execution.
- L. Walkway: The bidder must install and maintain G.I. walkway with anti-skid holes on the roof to ensure safety during solar project work and during O&M period. The minimum width of the walkway shall be 300mm. Walkway shall be installed on the rooftop before the start of solar project installation work, so that the safety of worker can be ensured and also damage to roof sheet can be avoided.
- M. Bidder shall take all necessary safety measures during erection as well as during operation and maintenance including compliance to specific safety guidelines at Chapter X, sl. No 121 of CEA safety regulations 2023.

INVITATION FOR BIDS

- N. Bidder has to submit the standard operating procedure (SOP) /Safety protocol before start of work for Engineer-In-Charge/NVVN authorized representative approval. Records of Toolbox Talk and Attendance of Labour shall form part of the supporting documents for claiming amount linked to safety.
- O. Insurance:
- i. Before commencement of the work, the Bidder shall ensure that all its employees and representatives are covered by suitable insurance against any damage, loss, injury or death arising out of the execution of the work. Liquidation, Death, Bankruptcy etc., shall be the responsibility of Bidder. Further the Bidder may refer to relevant clauses of GCC, SCC and the Contract Agreement of IFB.
 - ii. Bidder shall take third party liability insurance for deployed workmen, employees against any damage, loss, injury or death arising out of the O&M work.
 - iii. The Bidder shall further take Fire and peril insurance policy covering the risk of damage, theft of material/ equipment/ properties after completion of the work(s) throughout the O&M period.
- P. Warranty and guarantees: The Bidder shall warrant that the goods supplied under this IFB are new, unused, of the most recent or latest technology and incorporate all recent improvements in design and materials as per standards specified in the technical specifications of this IFB. The Bidder shall provide warranty covering the rectification of any and all defects in the design of equipment, materials and workmanship including all spare parts for a period of initial Ten (10) Operational Years. The responsibility of operation of warranty and guarantee clauses and claims/ settlement of issues arising out of said clauses shall be responsibility of the Bidder and NVVN will not be responsible in any way for any claims whatsoever on account of the above for the period of the contract.
- Q. Bidder is required to provide protection at Chandigarh Site in the form of barbed Wire/Concertina Fencing.

Detailed Scope of Work shall be as per Section VI (Technical Specifications)

- 3.0 NVVN intends to finance subject Package through External Commercial Borrowings/ Domestic Commercial Borrowings / Own sources.
- 4.0 Detailed specification, scope of work and terms & conditions are given in the Bidding Documents, which are available at the GePNIC (e-tender) portal at <https://eprocurementpc.nic.in/>. The Bidding Schedule* for the Tender is as under:

Issuance of IFB	As per NIT in GEPNIC portal
Bidding Document Sale Date & Time	As per NIT in GEPNIC portal
Last Date for receipt of queries from bidders (if any) **	As per NIT in GEPNIC portal
Bid Submission Start	As per NIT in GEPNIC portal
Bid Submission End Date & Time*	As per NIT in GEPNIC portal
Bid Opening Date & Time for Techno-Commercial Bid*	As per NIT in GEPNIC portal
Price Bid Opening Date & Time	Shall be intimated separately by NVVN.
Cost of Bidding Document	NIL
Bid Security	Rs 5,00,000/- (Indian Rupees Five Lakh Only)

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****Bidders are advised to visit the GePNIC (e-tender) portal of NTPC for updated bidding schedule of the Tender.***

****It is to be noted that "No Queries from Bidders, whatsoever, shall be entertained by the Employer beyond the last date of receipt of Queries/ Pre-Bid Conference (if applicable) as specified at GePNIC portal of NTPC".**

- 5.0 All bids must be accompanied by Bid Security for an amount of **INR 5,00,000/- (Indian Rupees Five Lakh only)** in the form as stipulated in the Bidding Documents.

ANY BID NOT ACCOMPANIED BY AN ACCEPTABLE BID SECURITY SHALL BE REJECTED BY THE EMPLOYER AS BEING NON-RESPONSIVE AND SHALL NOT BE OPENED.

6.0 QUALIFYING REQUIREMENTS FOR BIDDERS

Tender is issued to already approved bidders; Bidders are not required to provide any Qualifying Requirement.

- 7.0 A complete set of Bidding Documents may be downloaded by any interested Bidder from the e-Tender Portal as per specified schedule. The tender is invited under e-tendering process. The bidders can enroll themselves on the website <https://eprocurmentpc.nic.in/>. The use of Digital Signature Certificate (DSC) Class-3 key is mandatory for e-tendering activities. Accordingly, bidders should have Digital Signature Certificate (DSC) key of Class 3 to participate in e-tendering. Bidders, if required, can obtain DSC Class-3 key from agencies authorized by Govt. of India. The e-Tender Portal also has the user manuals with detailed guidelines on enrolment and participation in the bidding process.

No hard copy of Bidding Documents shall be issued. Bids shall be submitted ONLY at the e-Tender Portal i.e. <https://eprocurmentpc.nic.in/>

- 8.0. Class-I local suppliers' and 'Class-II local suppliers' only are eligible to participate in this tender, as defined in the bidding documents/ Public Procurement (Preference to Make in India), Order. The bidders may apprise themselves of the relevant provisions of bidding documents in this regard before submission of their bids.
- 9.0. Any 'Bidder from a country which shares a land border with India', as specified in the Bidding Documents, will be eligible to bid in this tender only if bidder is registered with the Competent Authority as mentioned in the Bidding Documents.

Further, any bidder (including bidder from India) having specified Transfer of Technology (ToT) arrangement with an entity from a country which shares a land border with India, will be eligible to bid only if the bidder is registered with the same competent authority.

However, the said requirement of registration will not apply to bidders from those countries (even if sharing a land border with India) to which the Government of India has extended lines of credit or in which the Government of India is engaged in development projects.

- 10.0 Transfer of Bidding Documents by one intending Bidder to another is not permissible.
- 11.0 Downloading/Issuance of Bidding Documents and /or submission of Bid shall not construe that bidder is considered qualified.

INVITATION FOR BIDS

12.0 NTPC reserves the right to reject any or all bids or cancel/withdraw the Invitation for Bids (IFB) without assigning any reason whatsoever and in such case no bidder/intending bidder shall have any claim arising out of such action.

13.0 **Address for communication:**

Sr. Manager (C&M)
NTPC VIDYUT VYAPAR NIGAM LIMITED
Engineering Office Complex, Plot No. A-8A Sector 24, Block A,
Noida, Uttar Pradesh 201301
Email: nvvncontracts@ntpc.co.in
Corporate Identification Number: U40108DL2002GOI117584,
website: www.eprocurementpc.nic.n
Phone No: 0120-4947239

14.0 **Registered Office**

NTPC VIDYUT VYAPAR NIGAM LIMITED,
NTPC Bhawan, Core-7, SCOPE Complex,
7, Institutional Area, Lodhi Road,
New Delhi – 110003
Corporate Identification Number: U40108DL2002GOI117584.
Website: www.nvvn.co.in

15.0 **Other Instructions**

- i. Please use 'Online Bidder Enrollment' link provided on portal <https://eprocurementpc.nic.in> (GePNIC) to register
- ii. Go through Help, FAQ etc. as provided on the above portal.
- iii. Class III digital signature (DSC) is required for submission of BID on above portal.
- iv. Important Note: It is strongly recommended that all authorized users of Supplier organizations should thoroughly peruse the information provided under the relevant links, and take appropriate action. This will prevent hiccups, and minimize teething problems during the use of GePNIC.

GePNIC Helpdesk Telephone: 24X7 Customer Support +91-120-4001 002/+91-120-4200 462/ +91-120-4001 005/+91-120-6277 787