

NTPC VIDYUT VYAPAR NIGAM LIMITED

(A wholly owned Subsidiary of NTPC Limited)



BIDDING DOCUMENTS

FOR

**DEVELOPMENT OF 17,491 KW GRID CONNECTED
ROOFTOP & GROUND MOUNTED SOLAR PROJECTS
AT VARIOUS LOCATIONS OF CENTRAL ARMED
FORCES AND DEPARTMENTS UNDER MINISTRY OF
HOME AFFAIRS AND MINISTRY OF POWER
ZONE 5 (ASSAM, ARUNACHAL PRADESH, TRIPURA,
MANIPUR, NAGALAND, MIZORAM, MEGHALAYA)**

BIDDING DOCUMENT NO.: NVVN/C&M/RE-314/2024-25

(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)

DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP	BIDDING DOCUMENT NO. NVVN/ C&M /RE-310 /2024-25 SECTION - I (IFB)

ABRIDGED INVITATION

NTPC VIDYUT VYAPAR NIGAM LIMITED

(A wholly owned Subsidiary of NTPC Limited)



CONTRACTS & MATERIALS

**INVITATION FOR BIDS (IFB)
FOR**

**DEVELOPMENT OF 17491 KW GRID CONNECTED
ROOFTOP & GROUND MOUNTED SOLAR PROJECTS AT VARIOUS
LOCATIONS OF CENTRAL ARMED FORCES AND DEPARTMENTS
UNDER MINISTRY OF HOME AFFAIRS AND MINISTRY OF POWER -
ZONE 5 (ASSAM, ARUNACHAL PRADESH, TRIPURA, MANIPUR,
NAGALAND, MIZORAM, MEGHALAYA)**

BID DOCUMENT NO: NVVN/C&M/RE-314/2024-25
GEPNIC portal

DATE: As per NIT in

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: 0120-4947236

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

DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR
PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA &
MOP

BIDDING DOCUMENT NO. NVVN/ C&M /RE-310 /2024-25
SECTION - I (IFB)

**BIDDING DOCUMENTS
FOR
DEVELOPMENT OF 17491 KW GRID CONNECTED
ROOFTOP & GROUND MOUNTED SOLAR PROJECTS AT VARIOUS LOCATIONS OF
CENTRAL ARMED FORCES AND DEPARTMENTS UNDER MINISTRY OF HOME
AFFAIRS AND MINISTRY OF POWER ZONE 5 (ASSAM, ARUNACHAL PRADESH,
TRIPURA, MANIPUR, NAGALAND, MIZORAM, MEGHALAYA)
BID DOCUMENT NO.: NVVN/C&M/RE-314/2024-25**

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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.

DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP	BIDDING DOCUMENT NO. NVVN/ C&M /RE-310 /2024-25 SECTION - I (IFB)

SECTION - I

INVITATION FOR BIDS (IFB)

INVITATION FOR BIDS

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

CONTRACT & MATERIALS

INVITATION FOR BIDS (IFB) FOR

DEVELOPMENT OF 17491 KW GRID CONNECTED ROOFTOP & GROUND MOUNTED SOLAR PROJECTS AT VARIOUS LOCATIONS OF CENTRAL ARMED FORCES AND DEPARTMENTS UNDER MINISTRY OF HOME AFFAIRS AND MINISTRY OF POWER - ZONE 5 (ASSAM, ARUNACHAL PRADESH, TRIPURA, MANIPUR, NAGALAND, MIZORAM, MEGHALAYA) (Domestic Competitive Bidding)

Bidding Document No.: NVVN/ C&M/RE-314/2024-25

Date: As per NIT in GEPNIC portal

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 & GROUND MOUNTED of various/multiple buildings to be installed of various government agencies in the States of Bihar and Jharkhand as mentioned in Annexure-A of Section-VI. Further any other Government Buildings/Areas in these states may be given for installation of Solar Plants and it shall be carried out in such a way that the generation is maximized on each building suitable for installation of Solar PV power plants. The tentative Roof Top Solar Capacity is 7.131 MWac The final plant capacity shall be as per the detailed engineering and approved design of each of the building's ROOFTOP & GROUND MOUNTEDs solar.

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.

Detailed scope of work is provided in the Technical Specification (Section VI) of bidding document.

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

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INVITATION FOR BIDS

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 1,00,00,000/- (Indian Rupees One Crore Only)

****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".

Note: Bidders are advised to visit the site and collect all necessary information required for installation of solar PV plants, before submission of their bids. Bidder shall be responsible for accessing the site conditions before submission of bid and NO ADDITIONAL CLAIM shall be entertained in this regard.

- 5.0 All bids must be accompanied by Bid Security for an amount of **INR 1,00,00,000/- (Indian Rupees One Crore 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. BIDDER SHALL SUBMIT THE PROOF OF E-PAYMENT IN SEPARATE SEALED ENVELOPE OR IN THE E-TENDERING PORTAL, IF BID SECURITY IS SUBMITTED THROUGH ELECTRONIC FUND TRANSFER

BANK DETAILS FOR EFT PAYMENT

- (i) Bank Name: ICICI Bank Limited
- (ii) Branch: CONNAUGHT PLACE BRANCH
- (iii) Bank Address: 9A, PHELPS BUILDING, CONNAUGHT PLACE, NEW DELHI- 110001
- (iv) IFSC Code: ICIC0000007
- (iv) Account No.: 000705008910

- 6.0 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://eprocurentpc.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.

DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

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INVITATION FOR BIDS

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

- 7.0. 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.
- 8.0. 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.

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

12.0 **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.eprocurentpc.nic.in
Phone No: 0120-4947236

13.0 **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

14.0 **Other Instructions**

DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR
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INVITATION FOR BIDS

- 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

NTPC VIDYUT VYAPAR NIGAM LIMITED
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SECTION – II

INSTRUCTIONS TO BIDDERS

Table of Clauses – Instructions to Bidders

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2.	Eligible Plant, Equipment and Services
3.	Cost of Bidding
<u>B. The Bidding Documents</u>	
4.	Content of Bidding Documents
5.	Clarification on Bidding Documents
6.	Amendment to Bidding Documents
<u>C. Preparation of Bids</u>	
7.	Language of Bid
8.	Documents Comprising the Bid
9.	Price Envelope including Price Schedules
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11.	Bid Currencies
12.	Bid Security
13.	Period of Validity of Bids
14.	Format and Signing of Bid
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15.	Submission of Bids
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19.	Opening of Bids
20.	Clarification on Bids
21.	Preliminary Examination of Techno-Commercial Bids
22.	Qualification
23.	Evaluation of Techno-Commercial Bids
24.	Preliminary Examination of Price Bids
25.	Evaluation of Price Bid
26.	Contacting the Employer
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27.	Award Criteria
28.	Employer's Right to accept any Bid and to reject any or all Bids
29.	Notification of Award
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36.	Fraud Prevention Policy
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39.	Integrity Pact
40.	Independent External Monitors
41.	Restrictions on procurement from a Bidder of a country which shares a land border with India
42.	Conflict of Interest

Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
	INSTRUCTIONS TO BIDDERS A. Introduction 1.0 Source of Funds 1.1 The Employer as defined in Bid Data Sheet (BDS) intends to finance the package named in the BDS, through domestic / own resources/ External Commercial Borrowings. 2.0 Plant, Equipment and Services 2.1 For the purposes of these bidding documents, the word "facilities" means the plant and equipment to be supplied and installed, together with the services to be carried out by the contractor under the contract. The words "plant and equipment", "installation services" etc., shall be construed in accordance with the respective definitions given to them in the General Conditions of Contract. 2.2 Eligible Bidders Bidding for the package named in the Bid Data Sheet (BDS) is open to bidders from within the Employer's country only, subject to fulfillment of conditions specified in ITB Clause “Restrictions on procurement from a Bidder of a country which shares a land border with India”. 3.0 Cost of Bidding The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Employer will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process. B. The Bidding Documents 4.0 Content of Bidding Documents 4.1 The facilities required, bidding procedures, contract terms and technical requirements are prescribed in the bidding documents. The bidding documents include the following sections: Section I – Invitation for Bids (IFB) Section II – Instructions to Bidders (ITB) Section III – Bid Data Sheet (BDS) Section IV – General Conditions of Contract (GCC)
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Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
	Section V – Special Conditions of Contract (SCC) Section VI – Technical Specifications (TS) Section VII – Forms and Procedures (FP) Part 1 of 2- Bid Form along with Attachments and Price Schedules Part 2 of 2- Standard Forms & Procedures 4.2 The Bidder is expected to examine all instructions, forms, terms, conditions, specifications and other information in the bidding documents. Failure to furnish all information required as per the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in rejection of its bid. 4.3 Mode of Tendering The Bid is invited under e-tendering process. The bidding documents shall be published on the Government e-procurement portal of NIC (GePNIC) at address https://eprocurentpc.nic.in/ (e-Tender Portal). The bidders can enroll themselves on the portal using the "Online Bidder Enrollment" tab. The use of Digital Signature Certificate (DSC) 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 digital signature certificate (DSC) Key of Class 3 from agencies authorized by Govt. of India. The said portal also has the user manuals with detailed guidelines on enrollment and participation in the bidding process. 5.0 Clarification on Bidding Documents 5.1 A prospective Bidder requiring any clarification to the bidding documents may notify the Employer through 'Seek Clarifications' tab under e-Tender portal or through e-mail at the address indicated in Bid Data Sheet (BDS). The Employer will respond to any request for clarification or modification of the bidding documents that it receives no later than the last date of receipt of queries as specified in Invitation for Bids (IFB). The Employer will post the Clarifications at e-Tender Portal and Bidders can view these clarifications once they are posted at the portal. Bidders are also advised to regularly check at e-Tender Portal regarding posting of clarification, if any. Further, no queries from Bidders shall be entertained after last date of receipt of Queries/ Pre-Bid Conference (if applicable) as specified in IFB. Accordingly, any query (ies) received from Bidders after the cut-off date shall not be considered and bidders to submit the bid based on the bidding documents (and amendments/ Errata/ Clarifications etc. thereof) issued. 5.2 The Bidder is advised to visit and examine the site where the facilities are to be installed and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for supply and installation of the facilities. The costs of visiting the site shall be borne by the bidder fully.
DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP	BIDDING DOCUMENT NO. NVVN/ C&M /RE-310/2024-25 SECTION - II (ITB) Page 2 of 32

Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
5.3	The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such inspection, but only upon the express condition that the Bidder, its personnel and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof and will be responsible for death or personal injury, loss of or damage to property and any other loss, damage, costs and expenses incurred as a result of the inspection.
6.0	Amendment to Bidding Documents
6.1	At any time prior to the deadline for submission of bids, the Employer may, for any reason, whether at its own initiative, or in response to a clarification requested by a prospective Bidder, amend the bidding documents.
6.2	The amendments will be posted at e-Tender Portal for viewing by the Bidder. The amendments will be binding on Bidders and it will be assumed that the information contained therein will have been taken into account by the Bidder in its bid. Bidders are also advised to regularly check e-Tender Portal regarding posting of Amendment, if any.
6.3	In order to afford prospective Bidders reasonable time in which to take the amendment into account in preparing their bid, the Employer may, at its discretion, extend the deadline for the submission of bids.
C. Preparation of Bids	
7.0	Language of Bid The bid prepared by the Bidder and all correspondence and documents related to the bid exchanged between the Bidder and the Employer shall be written in English language, provided that any printed literature furnished by the Bidder may be written in another language, as long as such literature is accompanied by a translation of its pertinent passages in English language in which case, for purposes of interpretation of the bid, the translation shall govern. The English Translation of the documents shall be carried out by professional translators and the translator shall certify that he is proficient in both languages in order to translate the document and that the translation is complete and accurate. Further, translation shall be authenticated by the Indian Consulate located in the Country where the documents have been issued or the Embassy of that Country in India.
8.0	Documents Comprising the Bid Single Stage Two Envelope Bidding Procedure shall be followed for the subject package as under: Envelope-I : Techno-Commercial Bid Envelope-II : Price Bid The bidder has to submit Techno-Commercial Bid (Envelope-I) and Price Bid (Envelope-II) through e-Tender Portal only. In addition, the documents mentioned in clause no. 8.1.1
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Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
8.1 8.1.1	have also to be submitted in Original in physical mode before the last date & time of submission of bid. To submit their bid through electronic mode at the e-Tender Portal, bidder has to use their digital signature certificate keys. The bidders are requested to download the entire bidding documents from the e-Tender Portal. Techno-Commercial Bid (Envelope-I) The Techno-Commercial Bid shall comprise of the following: Documents to be submitted in physical form in separate sealed envelope (s) duly marked in accordance with ITB clause 15.1 i.e. "Sealing and Marking of Physical Documents": (a) Attachment 1: Bid Security Bid security shall be furnished in accordance with ITB Clause 12. Bidder can also submit the Bid Security Online prior to the last date and time for submission of Bid through NEFT/RTGS transfer in the account of NTPC Vidyut Vyapar Nigam Limited as per details given below (i) Bank Name: ICICI Bank Limited (ii) Branch: CONNAUGHT PLACE BRANCH (iii) Bank Address: 9A, PHELPS BUILDING, CONNAUGHT PLACE, NEW DELHI- 110001 (iv) IFSC Code: ICIC0000007 (iv) Account No.: 000705008910 In such case, upon successful e-payment of the Bid Security to NVVNs bank account, payment details shall be submitted by the bidder as a part of its bid, in the e-tendering portal and in a separate sealed envelope, as a proof of e-payment of Bid Security. (b) Attachment 2: Power of Attorney A power of attorney, duly notarized by a Notary Public, indicating that the person signing the bid has the authority to sign the bid and that the bid is binding upon the Bidder during the full period of its validity in accordance with ITB Clause 13. The Authority of the person issuing the Power of Attorney shall also be submitted. Power of attorney(s), duly notarized by Notary Public, indicating that the person(s) signing the documents on behalf of Associate(s)/ collaborator(s)/ executants(s) of JV Agreement (if permissible in Section-III, Bid Data Sheet) have the authority to sign the same and the said documents are binding upon them during the full period of their validity.
DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP	BIDDING DOCUMENT NO. NVVN/ C&M /RE-310/2024-25 SECTION - II (ITB) Page 4 of 32

Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
8.1.2	Further, Bidder to note that bid can be submitted/digitally signed by only one person. The Power of Attorney must be in the name of person digitally signing the bids. In addition, the scanned copy of above-mentioned physical forms shall be uploaded by Bidder in "Fee Cover" or Techno-commercial Envelope on the e-tender portal. Documents to be submitted online through e-tender mode: The Bid Form as per Section-VII, Part 1 of 2, duly completed together with the following Attachments shall be uploaded at the e-Tender Portal in the Pre-Qual/Technical Cover/Envelope (a) Attachment 3: Deleted (b) Attachment 4: Conformity of the Facilities The documentary evidence of the conformity of the facilities to the bidding documents may be in the form of literature, drawings and data, and shall include: (i) a detailed description of the essential technical and performance characteristics of the facilities; (ii) a list giving full particulars, including available sources, of all spare parts, special tools, etc., necessary for the proper and continuing functioning of the facilities following completion of facilities in accordance with provisions of contract; and (iii) a commentary on the Employer's Technical Specifications and adequate evidence demonstrating the substantial responsiveness of the facilities to those specifications. Bidder shall note that standards for workmanship, materials and equipment designated by Employer in the bidding documents are intended to be descriptive (establishing standards of quality and performance) only and not restrictive. The bidder may substitute alternative standards, brand names and/or catalogue numbers in its bid, provided that it demonstrates to Employer's satisfaction that the substitutions are substantially equivalent or superior to the standards designated in the Technical Specifications. Attachment 4A: Special Tools and Tackles The bidder shall provide the details regarding Special Maintenance Tools and Tackles. The cost of these Tools and Tackles shall be included in the Bid Price. (c) Attachment 5: Erection Tools and Plant and Safety Equipments & Safety Personal Protective Equipments List of Erection Tools and Plant and Safety Equipments & Safety Personal Protective Equipments which the bidder proposes to bring to site in case the contract is awarded to him.
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Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
8.1.3	Attachment 5A: Commissioning / Start-up spares List of Commissioning / Start-up spares which the bidder proposes to bring to site in case the contract is awarded to him. (d) Attachment 6: Quality Assurance Programme Details regarding the overall quality management & procedures which the bidder proposes to follow during various phases of execution of the contract. (e) Attachment 7: Additional Information Additional Information which the bidder wishes to provide in his bid. (f) Attachment 8: Demonstration Parameter / Guarantee Declaration The declaration on the demonstration parameters as per Employer's format. Attachment 8A: Functional Guarantees The declaration on the guaranteed values of parameters as per Employer's format. (g) Attachment-9: Integrity Pact : Applicable (h) Attachment 10: Details of Foreign Principals of Indian Bidders The Bidder shall furnish information with regards to disclosure of the details of its foreign principals or associates. (i) Check List Other Attachment (s), if any, shall be as specified in BDS. General Technical Evaluation (GTE) Conditions: Bidders shall be required to accept the following mandatory General Technical Evaluation (GTE) condition of the Tender at e-Tender Portal prior to the submission of Bid: “Do you certify full compliance to all provisions of Bidding Document?” By accepting above GTE, Bidder shall certify their compliance to all provisions of Bidding Documents including but not limited to the following important provisions: ~~(a) Full compliance on Qualifying Requirements.~~ (b) Fraud Prevention Policy of NTPC/NVVN. (c) Policy for Debarment from Business Dealings of NTPC/NVVN. (d) ITB Clause “Restrictions on procurement from a Bidder of a country which shares a land border with India” (e) All provisions of the Integrity Pact
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Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
8.2 8.2.1	(f) Anti-Bribery and Anti-Corruption (ABAC) Policy of NTPC (g) Conflict of Interest Clause of ITB Acceptance of above GTE shall be considered as Bidder's confirmation that any deviation to the any provision found anywhere in their Bid Proposal, implicit or explicit, shall stand unconditionally withdrawn, without any cost implication whatsoever to the Employer, failing which the bid shall be rejected and bid security shall be forfeited. Note: The Techno-Commercial Bid should not contain any price content entry. In case, the Techno-Commercial Bid is found to contain any price content, such bid shall be liable for rejection. Price Envelope The Price envelope submitted by the Bidder shall comprise of the following: The following Attachments to Price Envelope as per Section-VII, part 1 of 2, duly completed together with Bill of Quantity (BOQ)/Price Schedules shall be uploaded at e-Tender Portal in 'Finance' cover/Envelope: (Bidders may note that Attachments to Price Envelope together with BOQ/Price Schedules <u>should NOT be</u> uploaded in Pre-Qual/Technical Cover/Envelope at the e-Tender Portal.) (i) Attachment 1P: Declaration regarding Import Content in Ex-works price Bidder may note that CIF value of import content in the Ex-works (India) price quoted in Schedule-1 of the bid, if any, shall be necessarily declared by the bidders in Attachment-1P. Bidder may further note that the relevant certificate for claiming the concessional custom duty benefits, if any shall be issued on the aforesaid declaration basis only. In case no such import content is envisaged in the bid or the CIF value of import content to be declared is zero, the bidder shall indicate "NIL" against the CIF value of import content. In cases where no value is indicated by the bidder against the CIF value of import content in Attachment-1P or statement/ any declaration like 'later', 'to be furnished later', 'NA' etc. are indicated by the bidder, in such cases the CIF value of import content in the bid shall be considered as "NIL" for the purpose of issuance of relevant certificate for claiming the concessional custom duty benefits, if any. No further claim in this regard shall be entertained by the Employer. (ii) Attachment 2P: Not Applicable (iii) Attachment 3P: Functional Guarantees The declaration on the guaranteed values of parameters as per Employer's format. (iv) Attachment 4P: Price Adjustment Data – Not Applicable
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Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
(vi) Check List Other Attachment (s), if any, shall be as specified in BDS. 8.3 8.4 9.0 10.0 10.1 10.2 10.3	Price envelope should not contain any matter in respect of Technical and / or Commercial aspects other than the details specifically sought in the Price envelope. If the Technical/commercial matters indicated in Price envelope are found to be in contradiction with the details furnished in Techno-Commercial envelope, the details furnished in Techno-Commercial envelope shall prevail. The Envelope-I (Techno-Commercial Bid) & Envelope-II (Price) Bid submitted by the Bidder should be without any deviations and strictly in conformity with the provisions of all bidding documents and amendments/ addenda/ corrigenda/errata/clarifications to the Bidding Documents issued by Employer prior to deadline for submission of bids. A conditional Price Bid shall run the risk of rejection. Price Envelope including Price Schedules The Bidder shall complete the Attachments to Price envelope and the appropriate BOQ (excel sheet) along with Price Schedules (if provided) furnished in the bidding documents as indicated therein, following the requirements of ITB Clauses 10 and 11. Bid Prices Unless otherwise specified in the Technical Specifications, Bidders shall quote for the entire facilities on a “single responsibility” basis such that the total bid price covers all the Contractor’s obligations mentioned in or to be reasonably inferred from the bidding documents in respect of the design, manufacture, including procurement and subcontracting (if any), delivery, construction, installation, commissioning, civil & steel structural works (as applicable), O&M for 10 years, Completion of the facilities and conductance of Guarantee tests for the facilities ~~including supply of mandatory spares~~ (if applicable). This includes all requirements under the Contractor’s responsibilities for testing, pre-commissioning and commissioning of the facilities, conducting Guarantee tests and, where so required by the bidding documents, the acquisition of all permits, approvals and licenses, etc.; the operation, maintenance and training services and such other items and services as may be specified in the bidding documents, all in accordance with the requirements of the General Conditions of Contract and Technical Specifications. Bidders are required to quote the price for the commercial, contractual and technical obligations outlined in the bidding documents. Bidders shall give a breakdown of the prices in the manner and detail called for in the Bill of Quantity (BOQ) (excel format) Further, Bidder are also required to furnish the detailed break-up of their BOQ price in the Price Schedules (if provided along with Bidding documents) in the following manner: Schedule No. 1 Plant and Equipment
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Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
10.4	Schedule No. 2 Local Transportation including Inland transit insurance and other local costs incidental to delivery of Plant & Equipment Schedule No. 3 Installation Services including Erection and Civil/Structural Works (as applicable) and O&M (Schedule 3A), Insurance covers other than inland transit insurance, Safety Aspects/Compliance to Safety Rules and other services as specified in the bidding documents. Schedule No. 4 Goods and Services Tax (GST), applicable on Schedules – 1,2, & 3 , not included in bid price. Bidders shall note that the plant and equipment included in Schedule no. 1 above shall exclude all materials used in civil, building and other construction works, if any. All such materials shall be included and priced under Schedule No.3 (Installation Services). In the BOQ/Price Schedules, Bidders shall give the required details and a breakdown of their prices as follows: (a) Schedule 1: Plant and Equipment to be supplied from within the Employer's country (Schedule No. 1) shall be quoted on EXW (Ex-Factory, Ex-Works, Ex-Warehouse or Off-the-Shelf, as applicable) basis and shall be inclusive of all costs as well as taxes, duties and levies paid or payable on components and raw materials incorporated or to be incorporated in the facilities. (b) Schedule 2: Local Transportation, Inland Transit Insurance and other local costs incidental to delivery of the Plant and Equipment shall be quoted in Schedule-2. (d) Schedule 3: Installation Services including Erection and Civil & Allied Works (as applicable) and Operation & Maintenance (O&M) for 10 years (Schedule 3A) shall be quoted separately (Schedule No. 3) and shall include rates or prices for all labour, contractor's equipment, temporary works, materials, consumables and all matters and things of whatsoever nature, charges for insurance covers other than inland transit Insurance, charges for Safety Aspects/Compliance to Safety Rules including operations and maintenance services (if applicable), the provision of operations and maintenance manuals, training of employer's personnel, etc., and other services, as identified in the Bidding Documents, as necessary for the proper execution of the Installation Services. (i) Bidders are advised to price their bids in such a manner that Installation Price Component of the bid price (excluding Civil/Structural works price (if applicable)) should not be less than minimum percentage (as specified in BDS) and should not be more than the maximum percentage (if applicable and specified in BDS) of the cumulative total of Ex-works Price of Main Equipment indicated in Schedule No.1. In case the Installation Price is below the minimum percentage specified above, the amount by which it is lower shall be retained proportionately
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Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
	from the Ex-works component of Contract price while releasing payments due on receipt of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid on pro-rata basis upon completion of installation of the respective equipment and its certification by the Project Manager. In case the Installation Price is above the maximum percentage specified above, the amount by which it is higher shall be retained while releasing progressive payments due on installation of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid along with payment due on completion of Trial Operation / Completion of Facilities of entire project. (ii) Bidders are advised to price their bids in such a manner that the Civil Works Price Component of the bid price (including Site Fabricated Structural works price) should not be less than minimum percentage (as specified in BDS) and should not be more than maximum percentage (if applicable and specified in BDS) of the cumulative total of Ex-works Price of Main Equipment indicated in Schedule No.1. In case the Civil Works Price (including Site Fabricated Structural works price) is below the minimum percentage specified above, the amount by which it is lower shall be retained proportionately from Ex-Works component of Contract price while releasing payments due on dispatch of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid on pro-rata basis upon completion of Civil Works including Structural works (if any) corresponding to the respective equipment and its certification by the Project Manager. In case the Civil Works Price (including Site Fabricated Structural Works Price) is above the maximum percentage specified above, the amount by which it is higher shall be retained while releasing progressive payments due on completion of civil works (including Site Fabricated Structural works), and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid along with payment due on completion of Trial Operation / Completion of Facilities of entire project. (iii) Bidders are advised to price their bids in such a manner that the component for 'Amount linked to Safety Aspects/ compliance to Safety Rules' should not be less than minimum percentage (as specified in BDS) of the cumulative total of Civil + Installation/ Erection + Structural Works portion of the Contract. In case 'Amount linked to Safety Aspects/ compliance to Safety Rules' is less than aforesaid minimum percentage specified of the cumulative total of Civil + Installation/ Erection + Structural Works portion of the Contract, the amount by which it is lower shall be retained proportionately from the other components of Schedule-4 of the Contract price while releasing payments of each RA bill. No interest shall be payable on the amounts linked to Safety Aspects / Compliance to Safety Rules including aforesaid retained amount. The amounts linked to Safety Aspects/
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Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
	Compliance to Safety Rules including aforesaid retained amount shall be payable in part or full based on safety compliance duly certified by Project Manager and Safety-in-charge on quarterly basis. (iv) Bidders are advised to price their bids in such a manner that the O&M Component should not be less than minimum percentage (as specified in BDS) of the cumulative total of EPC Price (i.e Supply (Sch-1), Transportation (Sch-2) and Installation Services (incl Civil & Safety)) In case O&M Charges are below the minimum price as mentioned, the amount by which it is lower shall be retained from the Ex-Works component of Contract price while releasing payments due on receipt of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid on pro- rata basis upon completion of O&M Period and its certification by the project manager (v) Bidders are advised to price their bids in such a manner that Schedule 2 (Local Transportation and Inland Transit Insurance and Other Local Costs Incidental To Delivery Of Plant & Equipment) Price Component of the bid price should not be more than maximum percentage (as specified in BDS) of the cumulative total of Ex-works Price of Main Equipment indicated in Schedule No.1. In case the Transportation (including Inland Transit Insurance) is above the maximum percentage specified above, the amount by which it is higher shall be retained while releasing progressive payments due on transportation, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid along with payment due on Commissioning of the premise. (e) Deleted. (f) The prices quoted in Schedule Nos. 1,2 & 3 shall be inclusive of all Taxes, Duties, Levies & charges, except Goods and Services Tax (GST), payable in the Employer's country as of seven (7) days prior to the deadline for submission of price bids. Further, all Taxes, Duties, Levies & Charges on the Materials incorporated in Erection and Civil & Allied Works (as applicable) shall also be included in the prices quoted in Schedule No. 3 & no separate payment on this account, whatsoever, shall be made by Employer. Goods and Services Tax (GST) applicable on goods and services specified in Schedule Nos. 1, 2 & 3 shall not be included in respective schedules but shall be quoted separately in Schedule No. 4. The Goods & Services Tax (GST) quoted by the bidder in Schedule No. 4 shall be as applicable in the Employer's country as on seven (7) days prior to the deadline for submission of Price Bids. Due Input Tax credits under GST as per the relevant Govt. Policy, wherever applicable, shall be taken into account by the Bidder while quoting his price.
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Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
10.5	The terms EXW, FOB, CIF, etc., shall be governed by the rules prescribed in the current edition of Incoterms, published by the International Chamber of Commerce, 38, Cours Albert 1er, 75008, Paris, France.
10.6	Benefits / Concessional Custom Duty - Solar Photo Voltaic Power Generation Projects Bidder may ascertain the availability of Custom Duty benefits under the Customs Tariff Act, available on import of Raw Materials/ Sub- Assembly/ Items, which are required for the manufacture and supply of plant and equipment to be incorporated in the facilities under the Contract. The Employer shall issue the required Certificate, as per relevant policies of the Govt. of India, to facilitate the bidders to avail any such benefit under the Contract. For issuance of such Certificate by the Employer, the bidders shall be required to indicate the import content included in their bid price, in <u>Attachment-1P</u> of Price Bid. The relevant Certificate will be issued on this basis only. In addition, Bidder may also like to ascertain the availability of Custom Duty Benefits available for import of construction Equipment, if any, as per the extant Customs Acts & Notification of Govt. of India. Where the Bidder has quoted taking into account the Custom Duty benefits available for import of Construction Equipment, he must give all information required for issue of relevant Certificate by Employer in <u>Attachment-2P</u>. The relevant Certificate will be issued on this basis only and no subsequent change will be permitted. However, if the above certificates are required to be issued by any department/ministry of Government of India or State Government where the Project is located other than Employer, the bidder shall itself be responsible for obtaining such certificate from the concerned department/ministry. In such a case, the Employer may issue a letter of recommendation. Further, the bidders shall themselves be solely responsible for availing the above benefits, which they have considered in their bid. In case of failure of the bidders to receive the benefits partly or fully from the Govt. of India and/or in case of any delay in receipt of such benefits and/or withdrawal of such benefits by the Govt. of India, the Employer shall neither be liable nor responsible in any manner whatsoever.
10.7	Price Basis Prices quoted by the Bidder shall remain firm and fixed for the entire period of execution of the Contract.
11.0	Bid Currencies
11.1	Bidders shall quote all prices in Indian Rupees only.
12.0	Bid Security
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Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
12.1 12.2 12.3 12.4 12.5	The Bidder shall furnish, as part of its Bid, a Bid Security in a separate sealed envelope in the amount and currency as stipulated in the Bid Data Sheet (BDS). In case bid security amount is deposited as EFT, Proof of e-payment of Bid Security, shall be submitted in the e-tendering portal or in a separate sealed envelope. The Bid Security shall, at the Bidder's option, be in the form of Electronic Fund Transfer (EFT) or a bank guarantee from any of the banks specified in the Bid Data Sheets or an Insurance Surety Bond from an Insurer as per guidelines issued by Insurance Regulatory and Development Authority of India (IRDAI). Bidder can Submit the Bid Security Online prior to the last date and time for submission of Bid through NEFT/RTGS transfer in the account of NTPC Vidyut Vyapar Nigam Limited as per details given below (i) Bank Name: ICICI Bank Limited (ii) Branch: CONNAUGHT PLACE BRANCH (iii) Bank Address: 9A, PHELPS BUILDING, CONNAUGHT PLACE, NEW DELHI-110001 (iv) IFSC Code: ICIC0000007 (vi)Account No.: 000705008910 Upon successful e-payment of the Bid Security to NVVNs bank account, payment details shall be submitted by the bidder as a part of its bid, in the e-tendering portal or in a separate sealed envelope, as a proof of e-payment of Bid Security. The format of the Bank Guarantee/ Insurance Surety Bond shall be in accordance with the form of bank guarantee/ Insurance Surety Bond towards bid security included in the Bidding Documents. Bid Security shall remain valid for a period of forty-five (45) days beyond the original Bid validity period and beyond any extension of bid validity subsequently requested under relevant clause of ITB. Deleted Any bid not accompanied by an acceptable bid security in a separate sealed envelope shall be rejected by the employer as being non-responsive and shall not be opened. In case, the bid security is submitted as EFT, bidder to submit the proof of e-payment of bid security either in separate sealed envelope or in the e-tendering portal. BG against Bid Security issued by a Bank outside India needs to bear stamp duty of appropriate value applicable to the place where BG is to be submitted. The BG may be got adjudicated by the employer from Collector of Stamps, within 3 months of arrival of BG in India. Expenses incurred in this regard shall be borne by Employer. Insurance Surety Bond against Bid Security issued by an Indian Insurance company outside India needs to bear stamp duty of appropriate value applicable to the place where Insurance Surety Bond is to be submitted. The Insurance Surety Bond may be got adjudicated by the employer from Collector of Stamps, within 3 months of arrival of Insurance Surety Bond in India. Expenses incurred in this regard shall be borne by Employer.
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Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
12.6 12.7 12.8 12.9	Subject to clause 12.8 below, the Bid Security of the Bidder whose Techno-Commercial Bid has not been found acceptable, shall be returned along with letter communicating rejection of Techno-Commercial Bid. The Bid Security of the bidders who are unsuccessful after opening of Price Bids shall be returned expeditiously. The Bid Security of the successful Bidder to whom the contract is awarded will be returned when the said Bidder has signed the Contract Agreement and has furnished the required Performance Securities pursuant to relevant clauses of ITB. The Bid Security may be forfeited - If the Bidder withdraws or varies its Bid during the period of Bid validity; - If the Bidder does not accept the correction of its Bid Price pursuant to ITB Sub-Clause for Arithmetical Correction. - If the Bidder refuses to withdraw, without any cost to the Employer, any deviation, variation, additional condition or any other mention anywhere in the bid, contrary to the provisions of bidding documents; - In the case of a successful Bidder, if the Bidder fails within the specified time limit to furnish the required Contract Performance Guarantee/Security Deposit in accordance with relevant clause of ITB. - If the bidder/his representatives commits any fraud while competing for this contract pursuant to Fraud Prevention Policy of EMPLOYER. - In case the Bidder/Contractor is disqualified from bidding process in terms of Section 3 and 4 of Integrity Pact. CONFIRMATION OF BGs THROUGH STRUCTURED FINANCIAL MESSAGING SYSTEM (SFMS)/ SWIFT While issuing the physical BGs, the Bidder's Bank shall also send electronic message through secure SFMS (in case of BGs issued from within India) or SWIFT (in case of BGs issued from outside India) to Employer's Beneficiary Bank whose details are provided herein below: (i) Bank Name: ICICI Bank Limited (ii) Branch: CONNAUGHT PLACE BRANCH (iii) Bank Address: 9A, PHELPS BUILDING, INNER CIRCLE, NEW DELHI-110001 (iv) IFSC Code: ICIC0000007 BG issuing/amending bank must send the BG advice in the form of message format via SFMS (Structured Financial Messaging System) as provided by RBI. The format of the message for confirmation of the BG shall be as below: BG advising message: IFN 760COV/ IFN 767COV via SFMS Field Number: Particulars (to be mentioned in Row 1) 7037: NVVNBG8910 (unique identifier)
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Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
12.10.1 12.10.2 12.10.2.1 13.0 13.1	Wherever the submission of Bid Security has been prescribed in the Bidding Documents, the Bid must be accompanied by the Bid Security in a separate envelope. The envelope must be clearly marked on top to evidence the presence of bid security and suitable marking instructions to this effect may be included in the bidding documents. In case the Bid Security is deposited by the Bidder/ vendor to NVVNs bank account, bidder to submit the proof of e- payment of bid security either in separate envelope or in the e-tendering portal. In case of Bidders opting for Bank Guarantee as Bid Security but unable to submit the Original Bank Guarantee in physical form at the tender opening location, before the deadline for submission of bids, following shall also be considered acceptable, subject to para 12.10.2.1 below: (i) The issuing bank shall intimate through their own official e-mail id to concerned C&M department with a copy to Bidder regarding issuance / extension of Bank Guarantee (BG) along with following documents, before the deadline of submission of bids: - a) The scanned copy of the BG. b) SFMS / SWIFT message acknowledgement copy sent to Employer / Employer's banker stating the date of sending. c) An undertaking from the issuing Bank strictly as per format enclosed at Annexure-III to BDS. SFMS / SWIFT message must be sent to the Employer/Employer's bank, details of which are mentioned in Bidding documents. (ii) Bidders shall also be required to upload the scanned copy of the BG on e-Tender Portal in Fee Cover. The bidder shall be required to submit all the documents in the manner as specified at para 12.10.2 above, to reach Employer before the deadline for submission of bids, failing which its bid shall be rejected as being non- responsive and shall not be opened. In such a case, Bidder shall also be required to submit the Original BG in physical form to reach Employer at the address mentioned in Bidding Documents, not later than 10 days from the date of submission of Techno-Commercial bids or before the Price Bid opening, whichever is earlier, failing which its bid shall be rejected and not considered for further evaluation. Period of Validity of Bids The Bid (comprising Techno-Commercial and Price envelope) shall remain valid for a period of one hundred twenty (120) days from the deadline set for submission of Bid. The bid valid for a shorter period shall be rejected by Employer as being non-responsive.
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Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
13.1.1 13.2 14.0 15.0 15.1	Deleted In exceptional circumstances, Employer may solicit the Bidder's consent to an extension of the bid validity period. The request and responses thereto shall be made in writing by post, or e-mail. If a Bidder accepts to extend the period of bid validity, the validity of bid security shall also be suitably extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid. Format and Signing of Bid The Bids including all the documents uploaded at the e-Tender Portal shall be digitally signed (using the appropriate class of digital signature prescribed at e-Tender Portal) by a duly authorised representative of the Bidder to bind him to the contract. The authorization shall be indicated by written power of attorney as per ITB Clause 8.1.1 (b) and shall be submitted in physical form in a separate sealed envelope prior to the deadline for submission of bids. D. Submission of Bids The Bid [comprising the Bid Form as per Section-VII, Part 1 of 2, together with its Attachments (Techno-commercial and price) and BOQ/Price Schedules] shall be submitted simultaneously at the e-tender portal through e-tender mode in the manner specified elsewhere in bidding document. No Manual/ Physical Copy of the Bid shall be acceptable, except the documents specified to be submitted in physical form as per ITB Clause 8.1.1. Bidder shall upload the completed Bid Form, Attachments pertaining to Techno-commercial envelope along with all annexures under 'Technical Cover' at the e-Tender Portal. The Attachments to Price Envelope, duly completed together with Price Schedule (excel format) shall be uploaded in 'Finance cover' at the e-Tender Portal. Further, the detailed break-up of price in the Price Schedules (if provided along with Bidding documents) shall also be furnished in 'Finance cover'. Bidders may note that Attachments to Price Envelope together with BOQ (excel sheet)/Price Schedule <u>should not be</u> uploaded in the 'Technical cover' at the e-Tender Portal. Bidder to further ensure that documents uploaded online are being downloaded properly. Employer shall not be responsible for corrupt files, if any, uploaded online by bidder. Further file related to particular Attachment/Schedule including their annexures/ appendices, if any, shall be given name of that Attachment/Schedule only. Sealing and Marking of Physical Documents
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Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
15.1.1	Documents to be submitted in physical form (as brought out at ITB clause 8.1.1) shall be sealed and marked in the following manner: (i) The bid security furnished in accordance with ITB Clause 12 shall be sealed in a separate envelope duly marking the envelope as "ATTACHMENT-1: BID SECURITY". (ii) All other Original documents required to be submitted in physical form in line with ITB Clause 8.1.1 shall be sealed in a separate envelope duly marking the envelope as "Techno-Commercial Bid – Physical Documents" The envelopes shall then be sealed in an outer envelope.
15.1.2	The inner and outer envelopes shall: (a) be addressed to the Employer at the address given in the Bid Data Sheet (BDS), and (b) bear the Package name indicated in the Bid Data Sheet (BDS), the Invitation for Bids number indicated in the Bid Data Sheet (BDS), and the statement "DO NOT OPEN BEFORE [date]," to be completed with the time and date specified in the Bid Data Sheet (BDS), pursuant to ITB clause 16 i.e. 'Deadline for Submission of Bids'.
15.1.3	The inner envelopes shall also indicate the name and address of the Bidder.
15.1.4	If the outer envelope is not sealed and marked in the manner specified above, the Employer will assume no responsibility for its misplacement.
16.0	Deadline for Submission of Bids
16.1	Bids (both Techno-Commercial and Price) must be submitted online at e-tender portal not later than the time and date stated in the e-Tender Portal.
16.2	The physical documents in line with ITB Clause 8.1.1 shall be submitted before stipulated bid submission time at the address specified in BDS and Employer shall not be liable for loss/non-receipt/late receipt of above documents in postal transit.
16.3	Employer may, at its discretion, extend this deadline for submission of bids by amending the bidding documents in accordance with ITB Clause 6.0 i.e. 'Amendment to Bidding Documents', in which case all rights and obligations of Employer and Bidders will thereafter be subject to the deadline as extended.
17.0	Deleted
18.0	Modification and Withdrawal of Bids
18.1	The bidder may withdraw or modify its bid after the bid submission as per provision available in the e-tender portal. However, no bid can be withdrawn or modified subsequent to the deadline prescribed for submission of bids. Bidder may modify and re-
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Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
	submit its bid prior to the deadline prescribed for submission of bids. However, if the bidder once withdraws its bids, it cannot be submitted again.
18.2	DELETED
18.3	DELETED
18.4	No bid may be withdrawn in the interval between the bid submission deadline and the expiration of the bid validity period specified in ITB Clause 13. Withdrawal of a bid during this interval may result in the Bidder's forfeiture of its bid security, pursuant to ITB Sub-Clause 12.8(a).
E. Bid Opening and Evaluation	
19.0	Opening of Bids
19.1	<u>Techno-Commercial Bid Opening</u>
19.1.1	The Employer will first open Techno-Commercial Bid online in the presence of bidders' representatives who choose to attend the opening at the time, on the date and at the place specified in the Bid Data Sheet (BDS). In the event of the specified date for the opening of bids being declared a holiday for Employer, the bids will be opened at the appointed time on the next working day. All important information and other such details as Employer, at its discretion, may consider appropriate, will be announced at the opening.
19.1.2	In case requisite bid security pursuant to ITB Clause 12 are not submitted before the stipulated bid submission closing date and time then Bid shall be rejected by Employer as being non-responsive and shall not be opened.
19.2	<u>Price Bid Opening</u>
19.2.1	After the evaluation process of Techno-Commercial bid is completed, Employer will inform in writing the eligible Bidders regarding date, time and venue set for the opening of Price Bid. Bidders, whose Techno-Commercial Bid is not substantially responsive or does not meet the Qualification Requirements set forth in the bidding documents or who are debarred under Employer's Policy for Debarment from Business Dealings relating to some other tender/contract, shall also be informed in writing that their bid has been rejected and their bid security shall be returned, in accordance with ITB clause 12.6.
19.2.2	Price bids of those Bidders, who have been considered qualified and whose Techno-Commercial Bid found to be responsive, will be opened online in presence of the Bidder's authorised representatives who choose to attend. The Employer will open Price Bids at the time, on the date and at the place specified by the Employer. In the event of the specified date for the opening of bids being declared a holiday for the Employer, the bids will be opened at the appointed time on the next working day. All important information
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19.2.3 19.2.4 20.0 21.0 21.1 21.2 21.3	and other such details as the Employer, at its discretion, may consider appropriate, will be announced at the opening. The participating bidders will be able to view the bid prices of all the bidders after online opening of Price Bids by Employer. Deleted Clarification on Bids During bid evaluation, Employer may, at its discretion, ask the Bidder for a clarification of its bid including documentary evidence pertaining to the reference plants declared in the bid for the purpose of meeting Qualifying Requirement specified in Bid Data Sheet (BDS). The request for clarification and the response shall be in writing, and no change in the price or substance of the bid including substitution of reference plants in the bid by new/additional plant for conforming to Qualifying Requirement shall be sought, offered or permitted. PRELIMINARY EXAMINATION OF TECHNO-COMMERCIAL BIDS Employer will examine the bids to determine whether they are complete, whether required securities have been furnished, whether the documents have been properly signed and whether the bids are generally in order. Prior to the detailed evaluation, EMPLOYER will initially determine whether each Techno-Commercial bid is of acceptable quality, is generally complete and is substantially responsive to the bidding documents. For purposes of this determination, a substantially responsive bid is one that conforms to all the terms, conditions and specifications of the bidding documents without material deviations, objections, conditionalities or reservations. A material deviation, objection, conditionality or reservation is one (i) that affects in any substantial way the scope, quality or performance of the contract; (ii) that limits in any substantial way, inconsistent with the bidding documents, the Employer's rights or the successful Bidder's obligations under the contract; or (iii) whose rectification would unfairly affect the competitive position of other Bidders who are presenting substantially responsive bids. No deviation, whatsoever, is permitted by Employer to any provision of Bidding Documents. The Bidders are advised that while making their Bid proposals and quoting prices, all conditions may appropriately be taken into consideration. Bidders shall certify their compliance to the complete Bidding Documents by accepting the following General Technical Evaluation (GTE) of the Tender at e-Tender Portal: “Do you certify full compliance to all provisions of Bid Doc?” Acceptance of above condition shall be considered as Bidder's confirmation that any deviation to the any provision found anywhere in their Bid Proposal, implicit or explicit, shall stand unconditionally withdrawn, without any cost implication whatsoever to the Employer, failing which the bid shall be rejected and bid security shall be forfeited.
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21.3.1	The Employer may waive any minor informality, nonconformity or irregularity in a bid that does not constitute a material deviation.
21.4	Employer's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence. If a bid is not substantially responsive, it will be rejected by Employer, and may not subsequently be made responsive by the Bidder by correction of the nonconformity.
22.0	QUALIFICATION
22.1	~~Bidders shall certify their compliance on "Qualifying Requirements" of Employer by accepting the following General Technical Evaluation (GTE) of the Tender at e-Tender Portal:~~ ~~"Do you certify full compliance to all provisions of Bid Doc?"~~
22.2	~~Employer, by the examination of Techno-Commercial Bid, will determine to its satisfaction whether the participating bidders are qualified to satisfactorily perform the contract in terms of the qualifying requirements stipulated in the Invitation for Bid (IFB). The determination will take into account the bidder's financial capabilities, in particular its contracts, works in hand, future commitments and current litigation. It will be based upon an examination of documentary evidence of bidder's qualification submitted by the bidder, pursuant to ITB Clause 8.1.2(a) as well as such other information as Employer deems necessary and appropriate.~~ ~~Notwithstanding anything stated anywhere else in the bidding documents, Employer reserves the right to seek in writing information relating to qualifying requirements in addition to details contained in the bid. The bidder shall furnish required information promptly to the Employer.~~
22.3	~~A negative determination will result in rejection of the Bidder's Techno-Commercial Bid in which event Employer will not open the Price Bid of the concerned bidder and his bid security shall be returned in accordance with ITB clause 12.6.~~
22.4	The capabilities of the vendors and subcontractors, proposed in relevant attachment, will also be evaluated for acceptability. Should a vendor or sub-contractor be determined to be unacceptable, the bid will not be rejected, but the Bidder will be required to substitute an acceptable vendor or sub-contractor without any change in the bid price quoted in Price Proposal, prior to award.
23.0	EVALUATION OF TECHNO-COMMERCIAL BIDS
23.1	EMPLOYER will carry out a detailed evaluation of the Techno-Commercial bids in order to determine whether the technical aspects are in accordance with the requirements set forth in the bidding documents. In order to reach such a determination, Employer will examine and compare the technical aspects of the bids on the basis of the information supplied by the bidders, taking into account the following factors: (a) overall completeness and compliance with the Technical Specifications and Drawings; suitability of the facilities offered in relation to the environmental and
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	climatic conditions prevailing at the site; and quality, function and operation of any process control concept included in the bid. The bid that does not meet minimum acceptable standards of completeness, consistency and detail will be rejected for non-responsiveness. (b) Any other relevant factors listed in the Bid Data Sheet (BDS), General Conditions of Contract, Special Conditions of Contract and Instruction to Bidders, or that EMPLOYER deems necessary or prudent to take into consideration. (c) Functional Guarantees Bidders shall state the functional guarantees (e.g. performance, efficiency, power consumption) of the proposed facilities in response to the Technical Specifications. In case a minimum (or a maximum, as the case may be) level of functional guarantee is specified in the Technical Specifications for the bids to be considered responsive, bids offering plant and equipment with such functional guarantees less (or more) than the minimum (or maximum) specified may be rejected. Bidder may note that deviations, variations and additional conditions etc. found anywhere in the bid, shall not be given effect to in evaluation and it will be assumed that the Bidder complies with all the conditions of Bidding Documents. In case the Bidder refuses to withdraw deviations, implicit or explicit, found anywhere in the bid, without any financial implication whatsoever to the Employer, the bid shall be rejected and bid security shall be forfeited.
24.0	PRELIMINARY EXAMINATION OF PRICE BID
24.1	After opening of Price bids, The Employer will examine the Price bids to determine whether they are complete, whether any computational errors have been made, and whether the bids are generally in order.
24.2	Arithmetical Correction Arithmetical errors will be rectified on the following basis. The Bidder shall complete the Attachments to Price envelope and the appropriate Price Schedules furnished in the bidding documents as indicated therein, following the requirements of ITB Clauses 10 and 11. The price schedule is obtained on a formula based excel file. If there is any discrepancy in the calculated total price due to multiplication or summation error, then quoted unit price shall be considered valid and total price (by summation/multiplication) shall be calculated. If the Bidder does not accept such correction of errors, its bid will be rejected, and the bid security will be forfeited in accordance with ITB Sub-Clause 12.8.
25.0	EVALUATION OF PRICE BID
25.1	The comparison shall be of the EXW Price of Plant and Equipment offered from within the Employer's country, such price to include all costs as well as duties and taxes paid or payable on components and raw materials incorporated or to be incorporated in the Plant
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25.2	and Equipment, plus the cost of Local Transportation, Insurance Covers, all Installation Services and civil/ structural works required under the Contract, plus the Goods and Services Tax (GST) specified by the Bidder in its Bid (applicable on goods and services quoted in Schedules -1, 2 & 3). The Employer's comparison will also include the costs resulting from application of the evaluation procedures described in ITB Sub Clauses 25.3. However, the Price of recommended spare parts quoted in Price Schedule No. 5 shall not be considered for evaluation of Bids. The Employer's evaluation of a bid will take into account the following: (i) The bid prices indicated in Price Schedules Nos. 1 through 3; (ii) Deleted (iii) The corrections pursuant to ITB sub-clause 24.2; (iv) The costs and factors on account of offered functional guarantees of the facilities (if applicable), that will be added to each Bidder's bid price in the evaluation using pricing information available to the Employer, in the manner and to the extent indicated in ITB Sub Clause 25.3 and in the Technical Specifications.
25.3	Pursuant to ITB Sub Clause 25.2, for the purposes of evaluation, the adjustment (if any) specified in the Bid Data Sheets (BDS) will be added to the bid price for each drop (or excess) in the responsive functional guarantees offered by the Bidder, below (or above) either a norm of 100 or the value committed in the responsive bid with the most performing functional guarantees, as specified in the Bid Data Sheets (BDS). The adjustment factors shall be converted to such currencies as specified in Bid Data Sheets (BDS).
25.3.1	Specific Additional Criteria: The relevant evaluation method, if any, shall be detailed in the Bid Data Sheets (BDS).
25.4	Any adjustments in price that result from the procedures indicated in ITB Sub Clause 25.3 shall be added, for purposes of comparative evaluation only, to arrive at an "Evaluated Bid Price." Bid prices quoted by Bidders shall remain unaltered.
25.5	The method of evaluation is illustrated below: Illustrative Method of Evaluation Any Bidder -----(Equivalent INR)----- 1. Quoted Bid Price (after considering arithmetical corrections) (i) Ex-works price N1
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	(ii) Local Transportation and Inland transit Insurance and Other local costs incidental to Delivery of Plant and Equipment N2 (iii) Price for Installation Services and O&M (for 10 years) N3 (v) Total Price N (N1+N2+N3) 2. Taxes & Duties (not included in 1 above) (i) GST P 4 Evaluated Bid Price FEP (N+P) Note: Aforesaid method of evaluation shall be equally applicable for all bidders. 25.6 PREFERENCE TO MAKE IN INDIA AND GRANTING OF PURCHASE PREFERENCE TO LOCAL SUPPLIERS Purchase preference shall be given to local suppliers as per methodology specified in Annexure-II to Section-III (Bid Data Sheet) of Bidding Documents. 26.0 Contacting the Employer 26.1 Subject to ITB Clause 20.0, no Bidder shall contact Employer on any matter relating to its bid, from the time of the opening of bids to the time the contract is awarded. Any effort by a Bidder to influence Employer in bid evaluation, bid comparison or contract award decisions may result in rejection of the Bidder's bid. F. Award of Contract 27.0 Award Criteria 27.1 Subject to ITB Clause 28 (Employer's Right to Accept any Bid and to Reject any or all bids) and Employer's Policy for Debarment from Business Dealings, the Employer will award the Contract to the successful Bidder [whose Techno-Commercial bid has been determined to be substantially responsive and the bidder is determined to be qualified to perform the Contract satisfactorily and whose Price Bid is determined to be the lowest evaluated bid as per methodology indicated in Annexure-II to BDS.
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27.2 27.3 27.4 28.0 28.1 29.0 29.1 30.0	No contract shall be awarded to a bidder against whom a Debarment Order has been issued as per Employer's Policy for Debarment from Business Dealings. The Bidder will be required to comply with all requirements of the Bidding Documents without any extra cost to the Employer, failing which his bid security will be forfeited. The Employer reserves the right to vary the quantity of any of the Spares and/or delete any item of Spares altogether at the time of Award of Contract. The mode of contracting with the successful bidder will be as per stipulation outlined in GCC Clause 3.6 and briefly indicated below: In the case of successful Bidder, the award shall be made as follows: (ii) First Contract: For Ex-works (India) supply of plant and equipment. (ii) Second Contract: For providing all services i.e. inland transportation for delivery at site, inland transit insurance, unloading, storage, handling at site, installation, insurance covers other than inland transit insurance, testing, commissioning and conducting Guarantee tests in respect of all the plant and equipment supplied under the 'First Contract' and Civil & Steel structural works (as applicable) and all other services as specified in the Contract Documents. (iii) "Third Contract" for Operation & Maintenance of complete Solar PV plant for a period of Ten (10) years from the date of successful completion of commissioning. Both the First & Second Contracts will contain a crossfall breach clause specifying that breach of one will constitute breach of the other Contract which will confer a right on the Employer to terminate the other contracts also at the risk and the cost of Contractor. Employer's Right to Accept Any Bid and to Reject Any or All Bids Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for Employer's action. Notification of Award Prior to the expiration of the period of bid validity, the Employer will notify the successful Bidder in writing by registered letter or by e-mail that its bid has been accepted. The notification of award will constitute the formation of the contract. Signing the Contract Agreement On receipt of Employer's notification that its bid has been accepted, Bidder shall prepare and finalize the Contract Documents for signing of the formal Contract Agreement and shall enter into the Contract Agreement with the Employer, as per Proforma enclosed
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31.0 31.1 31.2 31.3 31.5 32.0 32.1 33.0 i)	with the Bidding Documents, on non-judicial stamp paper of appropriate value within 28 days from the date of the Notification of Award. Performance Security Within twenty-eight (28) days after receipt of the Notification of Award, the successful Bidder shall furnish performance securities as specified in BDS for all the contracts and in the form provided in the section "Forms and Procedures" of the bidding documents. Deleted The Bank Guarantees submitted towards Performance Security shall be essentially from any of the Banks listed in Annexure-I to SCC. The Bank guarantee submitted from within India towards Performance Security shall be issued on Non-Judicial Stamp Paper of appropriate value as per Stamp Act prevailing in the State(s) where the BG is submitted or is to be acted upon or the rate prevailing in the State where the BG is executed whichever is higher. In case of guarantees issued by branches outside India for foreign banks, the bank guarantees shall be routed through the correspondent Bank in India for due verification of signatures of the executant and lodgement of claim. The BG issued by a Bank outside India also needs to bear Stamp Duty of appropriate value applicable to the place where BG is to be submitted, the BG will be adjudicated from Collector of Stamps, within 3 months of arrival of BG in India and the expenses incurred in this regard shall be recovered from the Contractor. While issuing the physical BG, the Bidder's Bank shall also send electronic message to Employer's Beneficiary Bank whose details are provided in ITB clause 12.0 through secure SFMS (in case of BGs issued from within India) or SWIFT (in case of BGs issued from outside India). Annulment of award Failure of the successful Bidder to comply with the requirements of ITB Clause 30 or ITB Clause 31 shall constitute sufficient grounds for the annulment of the award and forfeiture of his bid security. G. Other Instructions Ineligibility for participation in re-tender/ future tenders Notwithstanding the provisions specified in ITB Sub-Clause 12.8 and ITB Clause 32, if a bidder after having been issued the Notification of Award, either does not sign the Contract Agreement pursuant to ITB Clause 30 or does not submit an acceptable Performance Security pursuant to ITB Clause 31.1 to 31.4, and which results in retendering of the package, then such bidder/contractor shall be treated ineligible for participation in re-tendering of this particular package. Further, such bidder/contractor shall also be dealt as per the provisions of policy for Debarment from Business Dealings.
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ii)	If a bidder after opening of tenders where EMD is 'NIL/Not applicable' or exempted for bidders as per policy guidelines, withdraws its offer within the validity period of the offer, then such bidder shall be treated as ineligible for participation in the future tenders for a period of 6 months from the date of withdrawal of the bid, and also in re-tendering of this particular package.
iii)	If a bidder after having been issued the Notification of Award/ Purchase Order of a package where EMD is 'NIL/Not applicable' or exempted for bidder as per policy guidelines, either does not sign the Contract Agreement pursuant to ITB Clause titled 'Signing the Contract Agreement' or does not submit an acceptable Performance Security pursuant to ITB Clause titled 'Performance Security', and which result in retendering of the package, then such bidder/contractor shall be treated ineligible for participation in re-tendering of this particular package. Further, such bidder/contractor shall also be dealt as per the provisions of the contract and policy for Debarment from Business Dealings.
34.0	Time Schedule (programme of performance) The plant and equipment covered by this bidding document are required to be shipped and installed, and the facilities are to be completed within the period named in the Bid Data Sheet after the effective date specified in the Contract Agreement. Bidders are required to base their prices on the time schedule given in relevant appendix to the form of Contract Agreement (Time Schedule) or, where no time schedule is given, on the completion date(s) given in the Bid Data Sheet. No credit will be given for earlier completion.
35.0	Corrupt or Fraudulent Practices
35.1	Employer requires that Bidders, Contractors and Suppliers observe the highest standard of ethics during the procurement and execution of the contracts. In pursuance of this policy, Employer: (a) defines, for the purposes of this provision, the terms set forth below as follows: (i) "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution; and (ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Employer, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition; (b) will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
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35.2 36.0 36.1 37.0 37.1	(c) will declare a firm ineligible, for a period of time as specified in the policy for Debarment from Business Dealings, to be awarded a contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for or in executing a contract of the Employer. Furthermore, Bidders shall be aware of the provision stated in GCC Sub-Clause 42.2. Fraud Prevention Policy The Bidder along with its associate/ collaborators/ sub-contractors/ sub-vendors/ consultants/ service providers shall strictly adhere to the Fraud Prevention Policy of Employer displayed on its tender website https://ntptender.ntpc.co.in/ and/or http://www.nvvn.co.in shall immediately apprise Employer about any fraud or suspected fraud as soon as it comes to their notice. If in terms of above policy it is established that the bidder/his representatives have committed any fraud while competing for this contract then the bid security of the bidder shall be forfeited. Bidders shall certify their compliance on "Fraud Prevention Policy" of Employer by accepting the following GTE at the e-Tender Portal: "Do you certify full compliance to all provisions of Bidding Document?" Acceptance of General Technical Evaluation (GTE) of the Tender at e-Tender Portal shall be considered as bidder's confirmation that they have read the contents of the Fraud Prevention Policy as displayed on tender website at https://ntptender.ntpc.co.in/ under section 'policy docs' and/or http://www.nvvn.co.in and undertake that they along with their associate/collaborator/ subcontractors / sub vendors / consultants / service providers shall strictly abide by the provisions of the Fraud Prevention Policy. Policy for Debarment from Business Dealings The Employer has in place a Policy for Debarment from Business dealings displayed on the website www.ntpc.co.in/ ntptender.ntpc.co.in/ http://www.nvvn.co.in. The version of Policy presently followed by NTPC is as mentioned in BDS. Business dealings may be withheld or banned with the Bidder/Contractor on account of any of the grounds and following the procedures as detailed in the said Policy for Debarment from Business Dealings. Bidders shall certify their compliance on "Policy for Debarment from Business Dealings" of Employer by accepting the following General Technical Evaluation (GTE) of the Tender at e-Tender Portal. "Do you certify full compliance to all provisions of Bid Doc?" Acceptance of above GTE shall be considered as bidder's confirmation to the following conditions:
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	(1) Bidder have read the contents of Debarment Policy (version mentioned in BDS) displayed on the website www.ntpc.co.in / ntpctender.ntpc.co.in / http://www.nvvn.co.in and agreed to abide by this policy. a) Bidder have not been Banned/Blacklisted as on date of submission of bid by Ministry of Power or Deptt. of Expenditure, Ministry of Finance. b) Bidder have not employed any public servant dismissed/removed or person convicted for an offence involving corruption or abetment of such offences. c) Bidder's Director(s)/ Owner(s)/ Proprietor/ Partner(s) have not been convicted by any court of law for offences involving corrupt and fraudulent practices including moral turpitude in relation to business dealings with Government of India or NTPC or NTPC's group companies during the last five years. (2) Bidder further confirms as under: that if at any point subsequent to award of Contract, the declarations given above are found to be incorrect, NTPC Limited/ Employer shall have the full right to terminate the Contract and take any action as per applicable laws for breach of contract including forfeiture of Bid Security/Performance Bank Guarantee. 38.0 Pre-Bid Conference : Not Applicable 39.0 Integrity Pact: Bidders are required to unconditionally accept all the conditions of the "Integrity Pact (IP)" as per Attachment-9 to the Bidding Documents which has been pre-signed by the Employer. Bidders shall certify their compliance on "Integrity Pact " by accepting the following General Technical Evaluation (GTE) of the Tender at e-Tender Portal: "Do you certify full compliance to all provisions of Bidding Document?" On Bidder's acceptance to the above GTE condition, Bidder confirms to have read, understood and unconditionally accept & commit to all the contents, terms, conditions and undertakings mentioned in the Integrity Pact which has been pre-signed by the Employer and enclosed with the Bidding Documents. Where the Joint Venture(s) / Consortium are permitted to participate in the bid pursuant to ITB Clause 8.1.2(a), acceptance of above GTE by bidder shall mean that all the JV Partner(s)/ Consortium members have read, understood and unconditionally accept & commit to all the contents, terms, conditions and undertakings mentioned in the Integrity Pact which has been pre-signed by the Employer and enclosed with the Bidding Documents. On Acceptance of the above GTE, Integrity Pact shall be considered signed by the Bidder / JV Partner(s)/ Consortium members and the same shall come into force from the date of submission of bid.
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40.0	It may also be noted that subsequent to Employer’s evaluation of Bids, resulting into award of Contract to a particular Bidder, the Integrity Pact so submitted shall form an integral part of the Contract. Independent External Monitors (IEM)s : In respect of this package, the Independent External Monitors (IEMs) would be monitoring the bidding process and execution of Contract to oversee implementation and effectiveness of the Integrity Pact Program. This panel is authorized to examine / consider all references made to it under this tender. The bidder(s), in case of any dispute(s) / complaint(s) pertaining to this package may raise the issue either with the designated 'Nodal Officer' in NVVN or directly with the IEMs address The Independent External Monitors (IEMs) has the right to access without restriction to all Project documentations of the Employer including that provided by the Contractor. The Contractor will also grant the IEMs, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his Project Documentations. The same is applicable to Subcontractors. The IEMs are under contractual obligation to treat the information and documents of the Bidder/ Contractor/ Sub-Contractors/ JV partners/ Consortium member with confidentiality. The Nodal Officer for necessary coordination with Independent External Monitors shall be as under: <table><tr><td>(i)</td><td>Concerned Group Head in C&M</td><td>:</td><td>if the issue pertains to awarding of Contract by C&M</td></tr><tr><td>(ii)</td><td>Concerned Head of Department</td><td>:</td><td>if the issue pertains to other departments</td></tr><tr><td>(iii)</td><td>Concerned Head of of Department</td><td>:</td><td>if the issue pertains to post- award execution of Contract</td></tr></table> IEMs appointed in NVVN to oversee the implementation of Integrity Pact <table><tr><th>S No</th><th>Independent External Monitors (IEMs)</th></tr><tr><td>1</td><td>Shri Sanjeev Sharma, Ex- Director (Fin) Mazagon Dock Shipbuilders Ltd</td></tr><tr><td>2</td><td>Shri Rakesh Sehgal, IDAS(Retd)</td></tr></table>	(i)	Concerned Group Head in C&M	:	if the issue pertains to awarding of Contract by C&M	(ii)	Concerned Head of Department	:	if the issue pertains to other departments	(iii)	Concerned Head of of Department	:	if the issue pertains to post- award execution of Contract	S No	Independent External Monitors (IEMs)	1	Shri Sanjeev Sharma, Ex- Director (Fin) Mazagon Dock Shipbuilders Ltd	2	Shri Rakesh Sehgal, IDAS(Retd)
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Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
41.0 41.1 41.2 41.3	Details of IEM is published in NVVN website and can be accessed through the following link https://nvvn.co.in/assets/files/INTEGRITY_PACT_AND_INDEPENDENT_EXTERNAL_MONITORS.pdf “Restrictions on procurement from a Bidder of a country which shares a land border with India” Any Bidder (including its Collaborator/Associate/DJU Partner/JV partner/Consortium Member/Assignee, wherever applicable) from a country which shares a land border with India will be eligible to bid in this tender only if bidder is registered with the Competent Authority as mentioned in Special Conditions of Contract (SCC). Further, any bidder 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 as mentioned in Special Conditions of Contract (SCC). (Definition/Requirement of ToT shall be as specified in DOE OM Ref. No. F.7/10/2021-PPD(1) dated 23.02.2023, enclosed with SCC) Such registration should be valid for the entire period of bid validity or any extension thereof. However, in case the validity period of registration is less than bid validity period, the Bidder shall be required to submit the extension of the validity period of registration before the opening of price bids, failing which the bid shall be rejected. Further the successful bidder shall not be allowed to sub-contract services/works to any “Sub-contractor” from a country which shares a land border with India unless such Sub-contractor is registered with the competent Authority as mentioned in SCC. However, the said requirement of registration will not apply to bidders/sub- contractors 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. Bidders may apprise themselves of the updated lists of such countries available in the website of the Ministry of External Affairs. “Bidder” (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency, branch or office controlled by such person, participating in a procurement process. “Sub-contractor” (including the term 'Sub-vendor'/Sub-supplier' in certain contexts) means any person or firm or company, every artificial juridical person not falling in any of the descriptions of Sub-contractors stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP	BIDDING DOCUMENT NO. NVVN/ C&M /RE-310/2024-25 SECTION - II (ITB) Page 30 of 32

Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
41.6	An Agent for the purpose of clause “41.4” is a person employed to do any act for another, or to represent another in dealings with third person. [Note: i. A person who procures and supplies finished goods from an entity from a country which shares a land border with India will, regardless of the nature of his legal or commercial relationship with the producer of the goods, be deemed to be an Agent. ii. However, a bidder who only procures raw material, components etc. from an entity from a country which shares a land border with India and then manufactures or converts them into other goods will not be treated as an Agent.] Bidders shall certify their compliance to ITB Clause “Restrictions on procurement from a Bidder of a country which shares a land border with India” by accepting the following General Technical Evaluation (GTE) of the Tender at e-Tender Portal: “Do you certify full compliance to all provisions of Bidding Document?” Acceptance of above attribute shall be considered as Bidder's confirmation that Bidder has read and understood the ITB Clause regarding “Restrictions on procurement from a Bidder of a country which shares a land border with India” and its bid is in compliance to this clause. In case it is established that Bidder has provided any false information in pursuance of the aforesaid ITB Clause, while competing for this contract, then its bid shall be rejected and bid security shall be forfeited. In case of a successful bidder, if it is established that the Bidder has not complied with terms of aforesaid ITB Clause, during execution of contract, this would be considered as fraudulent practices as mentioned in 5.1 (j) of “Policy for Debarment from Business Dealings” and shall be dealt accordingly. 42.0 CONFLICT OF INTEREST 42.1 A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Employer's interests. A bidder may be considered to have a conflict of interest with one or more parties in the bidding process, if: a) they directly or indirectly control, or are controlled by or are under common control of another entity; or b) they have the same legal representative/agent for purposes of their bids; c) they have relationship with each other, directly or through common third party(ies), that puts them in a position to have access to information about or influence on the bid of another Bidder; or d) Bidder and/or any of its allied entity(ies), which directly or indirectly control(s) or is(are) controlled by or is(are) under common control of another entity, has(ve) participated as a
DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP	BIDDING DOCUMENT NO. NVVN/ C&M /RE-310/2024-25 SECTION - II (ITB) Page 32 of 32

Clause No.	INSTRUCTIONS TO BIDDERS (ITB)
42.2	consultant in the preparation of the design or technical specifications of the contract that is the subject of the tender; or e) Bidder participates in more than one bid in this bidding process. For the purposes of this clause the term 'control' shall have the following meaning: "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions exercisable by a person or persons acting individually or in concert, directly or indirectly, including by virtue of their shareholding or management rights or shareholders' agreements or voting agreements or in any other manner. Note: If two or more CPSEs/State PSEs participate in a tender, they will not be deemed to fall under the 'Conflict of Interest' provisions solely because they are under common control of Government of India / State Government. Bidders shall certify their compliance to ITB Clause "Conflict of Interest" by accepting the following General Technical Evaluation (GTE) of the Tender at eTender Portal: "Do you certify full compliance to all provisions of Bidding Document?" Acceptance of above GTE shall be considered as Bidder's confirmation that Bidder has read and understood the ITB Clause regarding "Conflict of Interest and its bid is in compliance to this clause. In case it is established that Bidder has provided any false information in pursuance of the aforesaid ITB Clause, while competing for this contract, then its bid shall be rejected and bid security shall be forfeited. In case of a successful bidder, if it is established that the Bidder has not complied with terms of aforesaid ITB Clause, during execution of contract, this would be considered as fraudulent practices as mentioned in para 5.1 (j) of "Policy for Debarment from Business Dealings" and shall be dealt accordingly.
DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP	BIDDING DOCUMENT NO. NVVN/ C&M /RE-310/2024- 25 SECTION - II (ITB) Page 33 of 32

SECTION – III

BID DATA SHEET (BDS)

BDS Item No.	ITB Clause Ref., if any	DATA
SECTION - III BID DATA SHEET (BDS) NAME OF PACKAGE: DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP The following bid specific data for the Plant & Equipment to be procured, shall amend and/or supplement the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in the ITB.		
1.1	ITB 1.1 and 2.2	A. INTRODUCTION Bidders are required to go through the Guidelines provided at following e-tender portal: E-Tender Portal: https://eprocurentpc.nic.in/nicgep/app Name of the Package: DEVELOPMENT OF 17491 KW GRID CONNECTED ROOFTOP & GROUND MOUNTED SOLAR PROJECTS AT VARIOUS LOCATIONS OF CENTRAL ARMED FORCES AND DEPARTMENTS UNDER MINISTRY OF HOME AFFAIRS AND MINISTRY OF POWER IN ZONE 5 (ASSAM, ARUNACHAL PRADESH, TRIPURA, MANIPUR, NAGALAND, MIZORAM, MEGHALAYA) Name of the Employer: NTPC VIDYUT VYAPAR NIGAM LIMITED
1.2	ITB 4.3	Add the following at the end of Para 4.3 Tenders is invited among Enlisted Bidders of NVVN
BIDDING DOCUMENT NO.: NVVN/ C&M /RE-310 /2024-25		DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP - SECTION-III (BDS)
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BDS Item No.	ITB Clause Ref., if any	DATA
2.1	ITB 5.1	B. THE BIDDING DOCUMENTS Address of the Employer 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, Phone No: 0120-4947236
2.2	ITB 5.3	Permission shall be arranged by the Employer from the Premise Owner to enter upon the premises and lands for the purpose of such inspection, but only upon the express condition that the Bidder, its personnel and agents will release and indemnify the Employer & Premise Owner and its personnel and agents from and against all liability in respect thereof and will be responsible for death or personal injury, loss of or damage to property and any other loss, damage, costs and expenses incurred as a result of the inspection.
3.1	ITB 8.1.1 & 15.1	C. PREPARATION OF BIDS Add the following at the end of Clause 8.1.1 & 15.1 If the Bid security is submitted online through Electronic Fund Transfer (EFT), then physical documents are not required. Scanned Copy of the documents required as per ITB clause 8.1.1 shall be considered acceptable.
3.2	ITB 8.1.2 (a) CI 19.2.1, CI 20, CI 22.1, 22.2 & 22.3	Qualification Requirements for Bidders: Not Applicable
3.3	ITB 8.1.2(a)	Whether Joint Ventures are permitted : NO Whether Associate/Collaborator permitted : NO

BDS Item No.	ITB Clause Ref., if any	DATA
4.1	ITB 8.1.2 (g)	Attachment-9: INTEGRITY PACT: APPLICABLE
4.2	ITB 8.1.2 (j)	Attachment 11: Declaration regarding Local content in bid price Methodology regarding Purchase Preference is specified Annexure–II to BDS as per DPIIT circular dated 04.06.2020 & 16.09.2020 regarding “Make in India”. The 'local content' requirement to categorize a supplier as 'Class-I local supplier' is minimum 50%. For 'Class-II local supplier', the 'local content' requirement is minimum 20%. Solar PV modules and Inverter shall be necessarily procured from Class-I supplier only. Declaration regarding local content as per the Employer's format, for granting of purchase preference. In case a bidder does not submit the aforesaid declaration or statement/any declaration like 'later', 'to be furnished later', 'NA' etc. are indicated by the bidder, then the Bidder is liable not to be considered as a local supplier and may not be eligible for any purchase preference"/ ***"its bid is liable to be considered non-responsive and may be rejected".
5.1	ITB 10.4(d) (i)	For Installation Price Component including Civil/Structural works price Minimum Percentage: 10% (For Rooftop Projects) Minimum Percentage: 20% (For Ground mounted Projects) i.e Bidders are advised to price their bids in such a manner that Installation Price Component of the bid price including Civil / Structural works price should not be less than 10% of the Ex-works Price of Main Equipment for rooftop projects and 20% of the Ex-works Price of Main Equipment for rooftop projects.

BDS Item No.	ITB Clause Ref., if any	DATA
		In case the Installation and Civil & Structural price is below the minimum percentage specified above, the amount by which it is lower shall be retained proportionately from the Ex-Works component of Contract price while releasing payments due on receipt of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid on pro-rata basis upon completion of installation of the respective equipment and its certification by the Project Manager.
5.2	ITB 10.4(d) (ii)	Deleted
5.3	ITB 10.4(d) (iii)	For Amount linked to Safety Aspects/ compliance to Safety Rules Bidders are advised to price their bids in such a manner that the component for 'Amount linked to Safety Aspects/ compliance to Safety Rules' should not be less than 5% of the cumulative total of Service Portion of the Contract, i.e. Civil + Installation/ Erection + Structural Works. In case 'Amount linked to Safety Aspects/ compliance to Safety Rules' is less than aforesaid minimum percentage specified of the cumulative total of Service Portion of the Contract, i.e. Civil + Installation/ Erection + Structural Works, the amount by which it is lower shall be retained proportionately from the other components of Schedule-3 of the Contract price while releasing payments of each RA bill. No interest shall be payable on the amounts linked to Safety Aspects / Compliance to Safety Rules including aforesaid retained amount. The amounts linked to Safety Aspects / Compliance to Safety Rules including aforesaid retained amount shall be payable in part or full based on safety compliance duly certified by Project Manager and Safety-in-charge on quarterly basis.
5.4	ITB 10.4(d) (iv)	For O&M Charges
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BDS Item No.	ITB Clause Ref., if any	DATA
		Bidders shall quote their O&M charges for first year and O&M charges from 2nd year till 10th year shall be auto calculated based on O&M charges for 1st year and annual escalation factor @ 5.25% . In case total O&M Cost for 10 years is less than 13.5% of EPC price (Supply, Transportation & Installation services including Civil & Safety), the amount by which it is lower shall be retained from the Ex-Works component of Contract price while releasing payments due on receipt of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid on pro- rata basis i.e 10% of it shall be released every year upon completion of O&M Period and its certification by the project manager.
5.5	ITB 10.4(d) (iv)	For Transportation and Inland Transit Insurance Maximum Percentage: 4% i.e Bidders are advised to price their bids in such a manner that Transportation including Transit Insurance Component (Schedule 2) of the bid price should not be more than 4% of the Ex-works Price of Main Equipment. In case the Transportation including the Transit Insurance is above the maximum percentage specified above, the amount by which it is higher shall be retained proportionately from the Ex-Works component of Contract price while releasing payments due on transportation, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid on pro-rata basis upon commissioning of the premise.
6	ITB 12.1	Amount of Bid Security: INR 1,00,00,000/- (Indian Rupees One Crore only)

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BDS Item No.	ITB Clause Ref., if any	DATA
6.1	ITB 12.2	For online payment of Bid security, bidders can do online transfer of Bid security through NEFT/RTGS to NVVN's Bank account whose details are provided below. (i) Bank Name: ICICI Bank Limited (ii) Branch: CONNAUGHT PLACE BRANCH (iii) Bank Address: 9A, PHELPS BUILDING, CONNAUGHT PLACE, NEW DELHI- 110001 (iv) IFSC Code: ICIC0000007 (v) Account No.: 000705008910 While carrying out online transfer, Bidders shall ensure to enter "EMD Fee - Tender No.-Vendor Name" in the Text /Remarks / Reason field. Bidder shall intimate the details of same through email to nvvncontracts@ntpc.co.in and also upload the details in the "Fee Section" folder in GepNIC in the following format Tender No. : Vendor Name : UTR Reference : Amount: Date of Transfer: Transferor Bank: (Signature of Vendor with Seal)
6.2	ITB 12.2	Deleted
7.0	ITB 15.1.2 & 16.2	D. SUBMISSION OF BIDS The documents to be furnished in physical form shall be addressed and submitted to the following address: Sr Manager (C&M), NTPC VIDYUT VYAPAR NIGAM LIMITED,
BIDDING DOCUMENT NO.: NVVN/ C&M /RE-310 /2024-25		DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP - SECTION-III (BDS)
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BDS Item No.	ITB Clause Ref., if any	DATA
8.0	ITB 16.1	5th Floor, Engineering Office Complex Plot No. A-8A, Sector-24,NOIDA (UP), India-201 301 Email: nvvncontracts@ntpc.co.in Deadline for Bid Submission- as indicated at e-Tender Portal . E. BID OPENING AND EVALUATION
9.1	ITB 19.1.1	Location of Bid Opening NTPC VIDYUT VYAPAR NIGAM LIMITED Engineering Office Complex, Plot No. A-8A Sector 24, Block A, Noida, Uttar Pradesh 201301 Date and Time for Techno-Commercial Bid Opening: Please refer e-Tender Portal. Date and Time of Opening of Price Bid: Shall be intimated separately by the Employer.
9.2	ITB 19.2.1	Opening of Price bid shall be done expeditiously for all the responsive bids and shall be intimated by system generated intimation/email.
10.0	ITB 19.2.4	Whether Reverse Auction applicable : NO
11.1	ITB 25.2 (iv) & 25.3 & 25.5	The bid evaluation factor shall be as indicated below: Bidder have to quote Price (INR) for the entire bid quantity (in KW) with 10 years of O&M (including Taxes & Duties) - L The ranking shall be carried and the bidder with lowest L' shall be declared successful bidder for the said Package. Award Criteria will be on the basis of Lowest Evaluated Bid Price (EP) discovered by e-tendering process Any Bidder ----- (Equivalent INR) -- 1. Quoted Bid Price
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BDS Item No.	ITB Clause Ref., if any	DATA
		(after considering arithmetical corrections) (i) Schedule 1:Ex-works price N1 (ii) Schedule 2: Local Transportation and Inland transit Insurance and Other local costs incidental to Delivery of Plant and Equipment N2 (iii) Schedule 3: Price for Installation Services and O&M (10 years) (Schedule 3A) N3 (iv) Total Price N (N1+N2+N3) 2. Taxes & Duties (not included in 1 above) GST P 4 Evaluated Bid Price FEP (N+P) Note: Aforesaid method of evaluation shall be equally applicable for all bidders. Bidder shall have to quote the prices for all the Capacity range for Rooftop Solar Plant and Ground mounted projects in a zone and the Contract shall be awarded to Lowest Evaluated Bidder in a Zone based on the Overall Quoted Price (for the entire bid capacity). Bidder must quote for all the categories for cumulative capacity of 17491 KW. If bidder does not quote for any particular category or leaves any category blank or quotes for capacity less than the bid capacity (i.e 17491 KW), then bid shall be rejected.
11.2	ITB 25.3	Type of Transaction and Source of exchange rates: Bills Selling Exchange Rate established by STATE BANK OF INDIA Date of exchange rate: Deadline set for submission of Bids
11.3	ITB 25.3.1	Specific Additional Criteria : Not applicable
BIDDING DOCUMENT NO.: NVVN/ C&M /RE-310 /2024-25		DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP - SECTION-III (BDS)
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BDS Item No.	ITB Clause Ref., if any	DATA
12.0	ITB 31.1	The Contractor shall, within twenty-eight (28) days of the Notification of Award, provide securities for the due performance of the Contract for Ten Percent (10%) of Contract Price of all the Contracts, with an initial validity up to 15 months after the Completion of Facilities of the entire Project under the Contract. However, in case of delay in Completion of Facilities, the validity of all the contract performance securities shall be extended by the period of such delay. After the end of successful completion of period mentioned above, CPG shall be returned to agency provided agency has submitted CPG @10% of O&M Contract price and Security against Equipment Performance Guarantee during O&M Period The BG towards O&M Performance shall be submitted prior to return of the Contract Performance Guarantee (CPG) under the subject package. The above O&M Performance Security shall be initially valid upto 90 days after the end of Operation & Maintenance (O&M) period as specified in the Technical Specifications. The above security amount shall be payable to the Employer without any condition whatsoever. Security against Equipment Performance Guarantee during O&M Period: BG for O&M. The successful Bidder, to whom the work is awarded, shall provide security equal to $0.1 \times G \times R$ (Where G is Annual Generation corresponding to CUF applicable for that year and $R = \text{Rs.5.00 per kWh}$) in million INR for ten years as per contract.
13.0	ITB 33.0 (ii) & 33.0 (iii)	Deleted
14.0	ITB 34.0	Time to complete the facilities from the date of Notification of Award : 240 days from the date of NOA.
15.1		The program for supplying, installing, commissioning, completing the facilities ~~and site delivery of all Mandatory spares~~ covered in the package shall be in the form of Master Network identifying the Key phases in various areas of total
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BDS Item No.	ITB Clause Ref., if any	DATA									
15.2		works, like design, procurement, manufacture and field activities including civil construction and erection works. In addition, key milestone dates (10-15 nos.) shall also be identified for the complete facilities under the package. The Master Network shall conform to the following schedule dates for the key milestones. ----- <table> <tr> <th>-----Sl. from NOA* No. -----</th><th>Activity</th><th>Months</th></tr> <tr> <td></td><td></td><td>-----</td></tr> <tr> <td></td><td>Start</td><td>Finish</td></tr> </table> ----- AS GIVEN IN APPENDIX TIME SCHEDULE TO CONTRACT AGREEMENT IN SECTION VII – FORMS ----- The successful bidder shall be required to submit a detailed integrated PERT Network (L2 Schedule) matching with the above work schedule. The L2 Schedule shall, inter-alia, include at least following activities for each systems listed above, showing their inter-relationship and duration so as to meet the above mentioned milestone details. (i) Milestones to be incorporated in L2 Network to be submitted: 1. Ordering on sub vendor (wherever applicable) 2. Start of engineering 3. Completion of engineering 4. Start of manufacturing/fabrication 5. Completion of manufacturing/fabrication 6. Commencement of Supplies 7. Completion of supplies of all items 8. ~~Completion of site delivery of mandatory spares.~~	-----Sl. from NOA* No. -----	Activity	Months			-----		Start	Finish
-----Sl. from NOA* No. -----	Activity	Months									

	Start	Finish									
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BDS Item No.	ITB Clause Ref., if any	DATA
		9. Readiness of Type test 10. Completion of Type test
15.3		11. Commencement of Civil works 12. Completion of Civil works 13. Start of Erection 14. Completion of Erection The master network and the key milestone dates will be discussed with the successful Bidder and agreed upon after the issue of Notification of Award. Engineering Drawing and Data Submission Schedule shall also be discussed and finalised after the issue of Notification of Award.
15.4		After the Notification of Award, the contractor shall plan the sequence of work of manufacture, supply and erection to meet the above stated dates of successful completion of facilities and shall ensure all work, manufacture, shop testing, inspection and shipment of the equipment in accordance with the required construction/ erection sequence.
16.0	ITB 38.0	Address for pre-bid conference: NOT APPLICABLE G. Other Instructions
17.0	ITB 39.0	Integrity Pact: APPLICABLE
18.0	ITB 40.0	Independent External Monitors (IEM)s: APPLICABLE
19.0	ITB clause 37.1	The version of Policy for Debarment from Business dealings presently followed by NTPC is Rev.04
20.0	ITB Clause 43.0	Add a new clause 43.0 Benefits to MSEs (Micro and Small Enterprises) - NOT APPLICABLE
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BDS Item No.	ITB Clause Ref., if any	DATA
21.0	ITB Clause 44.0	Add a new clause 44.0 Royalty The Bid Price shall be inclusive of any Royalties or Seigniorage Fee or Cess or other charges payable on the quarried or mined metal, minerals, or minor minerals, as the case may be, at the rate(s) prevailing as on seven (7) days prior to the deadline set for Price Bid submission.
22.0	ITB Clause 45.0	Add a new clause 45.0 Exemption of GST or any other taxes and duties (if applicable) on Items Manufactured for Grid Connected Solar Photo Voltaic Power Generation Projects As per extant guidelines of Govt. of India, the benefits of exemption of GST or any other taxes and duties (if applicable on items manufactured for grid connected Solar Photo Voltaic Power Generation Projects) may be available for the items to be supplied under the contract. Bidder may appraise itself of the relevant policies and quote accordingly. The Employer shall issue the requisite certificate (if required) as specified in the relevant policy of Govt. of India. However, if the certificate is required to be issued by any department/ ministry of Government of India or State Government where the Project is located other than Employer, the Bidder shall itself be responsible for obtaining such certificate from the concerned department/ministry. In such a case, the Employer may issue recommendatory letter to the bidder. The Bidder shall be solely responsible for obtaining the benefits of exemption on GST or any other taxes and duties (if applicable) on the items to be supplied under the contract from the Govt. of India. In case of failure of the bidder to receive the benefits partly or fully from Govt. of India or in case of delay in receipt of such benefits, the Employer shall neither be responsible nor liable in this regard in any manner whatsoever.
23.0	ITB Clause 46.0	Add a new clause 46.0 Anti-Bribery and Anti-Corruption (ABAC) Policy: The Bidder and its employees along with its Associate/ Collaborator/ Sub- Contractors / Sub-Vendors / Consultants /
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BDS Item No.	ITB Clause Ref., if any	DATA
24.0		Service Providers and all other persons associated with business of Employer shall strictly adhere to Anti- Bribery and Anti-Corruption (ABAC) Policy of Employer displayed on tender website https://ntpctender.ntpc.co.in/. Bidders shall certify their compliance on “Anti-Bribery and Anti-Corruption (ABAC) Policy” of Employer by accepting the following GTE at the e-Tender Portal: “Do you certify full compliance to all provisions of Bidding Document?” Acceptance of General Technical Evaluation (GTE) of the Tender at e-Tender Portal shall be considered as bidder's confirmation that they and their employees along with their associate / collaborator/ subcontractors / sub vendors / consultants / service providers shall strictly abide by “Anti-Bribery and Anti-Corruption (ABAC) Policy” of Employer as displayed on tender website at https://ntpctender.ntpc.co.in/ under section ‘policy docs’ and undertake that they represent and confirm that they are aware of, understand, and will comply with all applicable laws and regulations relating to anticorruption and anti-bribery and the ABAC Policy of Employer. <u>ANNEXURES ENCLOSED WITH BDS</u> ANNEXURE-I: List of Banks Annexure-II: Preference to Make In India and granting of purchase preference to local suppliers Annexure-III: Format of Undertaking (To be sent by Issuing Bank through official email-I

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LIST OF BANKS ACCEPTABLE FOR SUBMISSION Annexure I
OF BANK GUARANTEE FOR BID SECURITY

SCHEDULED COMMERCIAL BANKS

A. STATE BANK OF INDIA

B. NATIONALISED BANKS

- 1 Bank of Baroda
- 2 Bank of India
- 3 Bank of Maharashtra
- 4 Canara Bank
- 5 Central Bank of India
- 6 Indian Overseas Bank
- 7 Indian Bank
- 8 Punjab National Bank
- 9 Union Bank of India
- 10 Punjab & Sind Bank
- 11 UCO Bank

C. SCHEDULED PRIVATE BANKS (INDIAN BANKS)

- 1 Axis Bank Ltd
- 2 Bandhan Bank Limited
- 3 CSB Bank
- 4 City Union Bank
- 5 DCB Bank Ltd
- 6 Dhanlaxmi Bank Ltd
- 7 Federal Bank Ltd
- 8 HDFC Bank Ltd
- 9 ICICI Bank Ltd
- 10 IndusInd Bank Ltd
- 11 IDFC FIRST Bank Limited
- 12 Jammu & Kashmir Bank Ltd
- 13 Karnataka Bank Ltd
- 14 Karur Vysya Bank Ltd
- 15 Kotak Mahindra Bank
- 16 Lakshmi Vilas Bank Ltd
- 17 Nainital Bank Ltd
- 18 RBL Bank Limited
- 19 South Indian Bank Ltd
- 20 Tamilnad Mercantile Bank Ltd
- 21 Yes Bank Ltd
- 22 IDBI Bank Ltd.

D. SCHEDULED PRIVATE BANKS (FOREIGN BANKS)

- 1 AB Bank Ltd
- 2 Abu Dhabi Commercial Bank PJSC
- 3 American Express Banking Corporation
- 4 Australia & Newzealand Banking Group Limited
- 5 Barclays Bank Plc
- 6 Bank of America

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- 7 Bank of Bahrain & Kuwait B.S.C.
- 8 Bank of Ceylon
- 9 Bank of China Limited
- 10 Bank of Nova Scotia
- 11 BNP Paribas
- 12 Citi Bank NA
- 13 Cooperatieve Rabobank UA
- 14 Crédit Agricole Corporate and Investment Bank
- 15 Credit Suisse AG
- 16 CTBC Bank Co Ltd
- 17 DBS Bank India Ltd
- 18 Deutsche Bank A.G.
- 19 Doha Bank Q.P.S.C
- 20 Emirates NBD Bank (PJSC)
- 21 First Abu Dhabi Bank PJSC
- 22 FirstRand Bank Ltd
- 23 HSBC Ltd
- 24 Industrial & Commercial Bank of China Ltd
- 25 Industrial Bank of Korea
- 26 JP Morgan Chase Bank, National Association
- 27 JSC VTB Bank
- 28 KEB Hana Bank
- 29 Kookmin Bank
- 30 Krung Thai Bank Public Company Ltd
- 31 Mashreq Bank PSC
- 32 Mizuho Bank Ltd
- 33 MUFG Bank, Ltd
- 34 NatWest Markets Plc
- 35 PT Bank Maybank Indonesia TBK
- 36 Qatar National Bank (Q.P.S.C.)
- 37 Sberbank
- 38 SBM Bank (India) Ltd
- 39 Shinhan Bank
- 40 Societe Generale
- 41 Sonali Bank Ltd
- 42 Standard Chartered Bank
- 43 Sumitomo Mitsui Banking Corporation
- 44 United Overseas Bank Ltd
- 45 Westpac Banking Corporation
- 46 Woori Bank

Note - Any Addition/ Deletion/ Modification in Bank list shall be as per changes in Second Schedule List by RBI from time to time.

*** Bidder to take note of NTPC letter ref. NTPC/FC/CS/BG/01 dated 03.09.2014 and SBI letter ref. CAG-I/AMT-1/2014-15/370 dated 04.09.2014 attached herewith this Annexure-I to BDS**

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एन टी पी सी लिमिटेड
(भारत सरकार का उद्यम)

NTPC Limited
(A Govt. of India Enterprise)

केन्द्रीय कार्यालय/Corporate Centre

Date : 03rd September 2014

Ref. No.: NTPC/FC/CS/BG/01

Deputy General Manager,

State Bank of India,

CAG Branch,

12 th floor, Jawahar Vyapar Bhavan, 1, Tolstoy Marg,

New Delhi 110 001

Kind Atten: Sh. Sandeep Mishra

Sub: Format of the Bank Guarantee (BG) issued by State Bank of India – reg.

Dear Sir,

NTPC Limited is India's largest Power Company and a 'Maharatna PSU' with a significant presence in the entire value chain of power generation business. The procurement process of NTPC requires its participating Bidders to submit Bank Guarantees (BGs) as Bid security/other securities in a fixed format provided by NTPC.

It has been observed recently that BGs issued by various branches of State Bank of India are inserting the following additional clause.

QUOTE

Notwithstanding anything contrary contained in any law for the time being in force or banking practice, this guarantee shall not be assignable or transferable by the beneficiary. Notice or invocation by any person such as assignee, transferee of agent of beneficiary shall not be entertained by the bank. Any invocation of guarantee can be made only by the beneficiary directly.

UNQUOTE

The inclusion of the aforesaid clause in the BGs restricts the rights of NTPC under the BG and it may not be possible for NTPC to accept the aforesaid clause in the BGs submitted to us by our Bidders. It may also be mentioned that incorporation of the above additional clause in the BG results in the BG being returned by NTPC and consequently rejection of the bids of parties that have submitted such BGs.

In view of the above, it is requested that please take up at appropriate levels so that suitable instructions are issued to all your branches not to incorporate any such additional clause and henceforth BGs may be issued strictly as per NTPC format only.

Kindly acknowledge the receipt of this letter

Yours faithfully,

(K.P.Gupta)

General Manager (Finance)

Copy for Kind information: ED(CC&M) for kind info of n.s.

एन टी पी सी भवन स्कोप कॉम्प्लेक्स, 7, इन्स्टीट्यूशनल एरिया, लोधी रोड, नई दिल्ली-110003 टेल/Tel.: 24360100, फैक्स/Fax : 011-24361018
NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodhi Road, New Delhi-110003, वेबसाइट/Website : www.ntpc.co.in



भारतीय स्टेट बैंक
State Bank of India

कॉर्पोरेट लेखा समूह शाखा, जवाहर व्यापार भवन,
11-12 वां तल, 1, टॉलस्टोय मार्ग, नई दिल्ली-110 001
Corporate Accounts Group Branch, Jawahar Vyapar Bhawan,
11th & 12th Floor, 1, Tolstoy Marg, New Delhi-110 001

Tel. : 23374525, 23374505, 23374541 (AMT-1), 23353022 (DGM & COO), 23701043, 23359506 (A & A), 23352995 (CS), 23352968 (IB)
Fax : 23353101 (Sectt.), 23352793 (CS), 23353029 (IB)

Shri K.P. Gupta,
General Manager (Finance),
NTPC Limited
Scope Complex, 7, Institutional Area,
Lodhi Road,
New Delhi: 110 003.

CAG-I/AMT-1/2014-15/370

04.09.2014

Dear Sir,

Format of the Bank Guarantee (BG) issued by State Bank of India

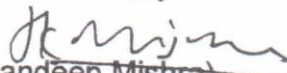
We refer to your letter dated 3rd September 2014 wherein you have requested for excluding bidders/vendors of NTPC from insertion of additional Clause restraining assignment/transferability of BG.

Looking at our relationship with NTPC, as a very special case, we have since obtained waiver from our Authorities for excluding NTPC from insertion of the referred clause for BGs issued in your favour.

We are taking steps to issue suitable instructions to our offices for exclusion of this clause for BGs issued in favour of NTPC. In case any bidder or vendor submits to you a Bank Guarantee issued by any of our Branches containing the additional clause as mentioned above, request you to please bring it to our notice and advise us so that we can take-up with the concerned Branch for excluding it.

This is for your information and necessary action please.

Yours faithfully,


(Sandeep Mishra)

Deputy General Manager &
Relationship Manager, AMT-1

Annexure-II to BDS

Sub: Preference to Make In India and Eligibility for Participation/ granting of Purchase Preference to Class-I local suppliers- regarding

It is the policy of the Government of India to encourage 'Make in India' and promote manufacturing and production of Goods and Services in India with a view to enhancing income and employment. In this regard, the following guidelines, concerning the procedure to be adopted for granting Eligibility for Participation/purchase preference to local suppliers, are hereby issued:

1.0 Definitions:

- a) **'Local content'** means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the goods, services or works procured (excluding net domestic indirect taxes) minus the value of imported content in the goods, services or works (including all customs duties) as a proportion of the total value, in percent.
- b) **'Class-I local supplier'** means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed.
'Class-II local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class- II local supplier' but less than that prescribed for 'Class-I local supplier'.
'Non-Local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than that prescribed for 'Class-II local supplier'.
- c) **'L1'** means the lowest tender or lowest bid or the lowest quotation received in a tender, bidding process or other procurement solicitation as adjudged in the evaluation process as per the tender or other procurement solicitation.
- d) **'Margin of purchase preference'** means the maximum extent to which the evaluated bid price of a 'Class-I local supplier' may be above the L1 for the purpose of purchase preference.
- e) **Fraud Prevention Policy** – shall mean the policy related to prevention of fraud displayed on NTPC tender website <http://www.ntpc tender.ntpc.co.in/>
- f) **Policy & Procedure for Debarment from Business Dealings** – shall mean the policy related to Debarment from Business Dealings forming part of Bidding Document.

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2.0 Eligibility for Participation/Purchase Preference:

Only Class-I and Class-II Local Suppliers are eligible to Bid. Bids received (if any) from Non-Local Supplier shall be out rightly rejected.

3.0 Purchase Preference

3.1 Margin of Purchase Preference: The margin of purchase preference shall be 20%.

3.2 Purchase preference shall be given to 'Class-I local suppliers' as specified hereunder:

- Among all qualified bids and substantially responsive bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract will be awarded to L1.
 - If L1 is not 'Class-I local supplier', the lowest evaluated bidder among the 'Class-I local supplier', will be invited to match the lowest evaluated bid (L1) price subject to Class-I local supplier's evaluated price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the lowest evaluated bid (L1) price.
 - In case such lowest eligible 'Class-I local supplier' fails to match the lowest evaluated bid (L1) price, the 'Class-I local supplier' with the next higher evaluated bid within the margin of purchase preference shall be invited to match the lowest evaluated bid (L1) price and so on and contract shall be awarded accordingly. In case none of the 'Class-I local supplier' within the margin of purchase preference matches the lowest evaluated bid (L1) price, the contract may be awarded to the L1 bidder.
- (ii) "Class-II local supplier" will not get purchase preference in any procurement, undertaken by NVVN.
- (iii) For the purpose of matching of lowest evaluated bid (L1) price, the Class-I local supplier would have to necessarily reduce all components of the quoted price on pro-rata basis. The reduction should not apply on the evaluation loading on account of functional guarantees and other loadings (if any, which are not dependent on quoted price). Further, the Contract shall be awarded on such revised/ reduced quoted price. The summation of the revised / reduced quoted price and the evaluation loading on account of functional guarantees and other loadings (if any) shall be equal to the lowest evaluated bid (L1) price.

4.0 Minimum Local Content

4.1 The local content requirement to categorize a Bidder/Supplier as 'Class-I local supplier' is minimum 50%. For 'Class-II local supplier', the 'local content' requirement is minimum 20%.

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5.0 Verification of Local Content:

- 5.1 The 'Class-I local supplier'/ 'Class-II local supplier' shall be required to provide, in the Bid Form/relevant Attachment of Techno- Commercial Bid, self-certification / declaration that the Item offered meets the local content requirement for 'Class-I local supplier'/ 'Class-II local supplier' and shall give details of the location(s) at which the local value addition is made.
- 5.2 In case the total bid price of the supplier / bidder is in excess of INR 10 crore, the 'Class-I local supplier'/ 'Class-II local supplier' shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content during execution prior to submission of last bill for payment.
In case aforesaid Certificate furnished by Contractor/Vendor is not in line with the declaration in respect of Local content in their bid, same shall be treated as false declaration.
- 5.3 False declarations will be dealt in line with the Fraud Prevention Policy and Policy & Procedure for Debarment from Business Dealings of NTPC.
- 5.4 In case of false declaration / violation of the provision of PPP-MII Order, if a bidder has been debarred / banned by NTPC, then the fact and duration of debarment should be promptly brought to the notice of the Member-Convenor of the Standing Committee (as per para 16 of PPP-MII Order) and the Department of Expenditure through Ministry of Power, GOI.
- 5.5 A supplier who has been debarred / banned by any other procuring entity for violation of 'Public Procurement (Preference to Make In India), Order 2017' (PPP-MII Order) dated 15.06.2017 and its subsequent revisions / amendments issued by Department of Industrial Policy and Promotion (DIPP) shall not be eligible for evaluation/preference, as applicable, under the aforesaid procedures for duration of the debarment. The 'Class-I local supplier'/ 'Class-II local supplier' shall be required to furnish a confirmation in this regard in the Bid Form/relevant Attachment of Techno-Commercial Bid.

6.0 Local Sourcing

- 6.1 The Bidder/its Sub-vendors must be Class-I local supplier for Item(s) mentioned at *clause no. 41 of GTR (if applicable) in Technical Specifications, as applicable or as per relevant government circular including Annexure I items in the MNRE Circular Public Procurement (Preference to Make in India) to provide for Purchase Preference (linked with local content) in respect of Renewable Energy (RE) Sector and/or any other applicable circulars/notifications etc, in case such item(s) are Self Manufactured/Bought-out. **BIDDER TO REFER LATEST GOVERNMENT GUIDELINES WITH RESPECT TO THE ABOVE.**
- 6.2 The Bidder / Contractor are requested to encourage and promote domestic manufacturing and production of goods and services by sourcing goods and services applicable under the contract / package from domestic suppliers / service providers. In this regard, Bidder shall also follow guidelines / advisory issued by Government of India from time to time, to the extent applicable to them, regarding promotion of local sourcing of goods including Bought out Items and service

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OFFICE MEMORANDUM

Sub: Public Procurement (Preference to Make in India) to provide for Purchase Preference (linked with local content) in respect of Renewable Energy (RE) Sector.

Reference is invited to MNRE's Order of even no. dated February 09, 2021, which superseded the earlier order of even no. dated September 23, 2020, on the above mentioned subject.

2. Para 7 of the aforesaid Order provides for a mechanism, in the form of a Committee, to examine the grievances in consultation with stakeholders and recommend appropriate actions to the Competent Authority in MNRE.

3. Further para 8 of the said Order mentions as follows:

"The complaint fee of Rs.2 Lakh or 1% of the value of the local item being procured (subject to maximum of Rs.5 Lakh), whichever is higher, shall be paid in the form of online transaction or Demand Draft, drawn in favour of IREDA. In case the complaint is found to be incorrect, the complaint fee shall be forfeited. In case, the complaint is upheld and found to be substantially correct, deposited fee of the complainant would be refunded without any interest."

4. It is hereby conveyed that the grievances/complaints under the subject Order dated February 09, 2021 may be addressed to the Secretary, Ministry of New & Renewable Energy (MNRE), Block-14, C.G.O. Complex, Lodhi Road, New Delhi-110003, along with payment of requisite complaint fee as prescribed in para 8 of the said Order.

5. The details of the bank account of Indian Renewable Energy Development Agency Limited (IREDA), wherein complaint fee can be paid, are as follows:

Bank Name	IndusInd Bank
Account Title	IREDA - MNRE MAKE IN INDIA A/C
Account No.	100136782501
Branch Code	0005
IFSC Code	INDB0000005
Bank Address	IndusInd Bank, GK-II, Dr Gopal Das Bhawan, 28, Barakhamba Road, New Delhi-110001

6. This issues with the approval of Secretary, MNRE.


(Mohd Azmal Mansoori)
Scientist-B

Email: azmal.mnre@gov.in

To:
All Concerned

Copy to: NIC, MNRE, for uploading on MNRE website for dissemination of information.

Copy for internal circulation to: Sr. PPS to Secretary/ Sr. PPS to JS (AKS) / Dir (RG)/ Sci-D (SK)

F. No. 283/22/2019-GRID SOLAR
भारत सरकार / Government of India
नवीन और नवीकरणीय ऊर्जा मंत्रालय/ Ministry of New & Renewable Energy

Block No. 14, C.G.O. Complex,
Lodhi Road, New Delhi – 110003
Dated: 09th February, 2021

ORDER

Sub: Public Procurement (Preference to Make in India) to provide for Purchase Preference (linked with local content) in respect of Renewable Energy (RE) Sector.

Ref: Department for Promotion of Industry and Internal Trade (DPIIT) Notification No.P-45021/2/2017-PP (BE-II) dated 4th June, 2020 and dated 16th September, 2020.

The Government of India, Department for Promotion of Industry and Internal Trade (DPIIT) issued Public Procurement (Preference to Make in India), Order 2017 for encouraging 'Make in India' and promoting manufacturing and production of goods and services in India with a view to enhancing income and employment. Further, DPIIT vide order's No.P-45021/2/2017-PP (BE-II) dated 4th June, 2020 and 16th September, 2020, have issued the revised Public Procurement (Preference to Make in India) Order 2017.

2. In the light of the Public Procurement (Preference to Make in India) Order 2017, this Ministry had issued O.M. No. 146/57/2018-P&C dated 11th December, 2018 covering certain products related to renewable energy sector under the Public Procurement (Preference to Make in India) Order and specifying the Minimum Percentage of local content required for such renewable energy products. Further, in pursuance of revised Public Procurement (Preference to Make in India) Order 2017, dated 04.09.2020, this Ministry had issued an Order No. 283/22/2019-GRID SOLAR dated 23.09.2020 on the above mentioned subject.

3. In furtherance of Para 19 of the DPIIT Notification No.P-45021/2/2017-PP(BE-II) dated 16.09.2020 and in supersession of all the aforementioned orders issued by this Ministry, the following has been decided:

- i. For the purpose of this order, the definitions of various terms used in the order, and provisions relating to (i) Eligibility of 'Class-I local supplier' / 'Class-II local supplier' / 'Non-local suppliers' for different types of procurement, (ii) purchase preference, (iii) exemption to small purchases, and (iv) margin of purchase preference, shall be the same as in DPIIT order dated 16.09.2020, referred to above and extracts of the same given at **Appendix**.
- ii. In procurement of all goods and services or works in respect of which there is sufficient local capacity and local competition as in Annexure-I, only "Class-I local supplier", shall be eligible to bid irrespective of purchase value.
- iii. Only 'Class I local supplier' and 'Class-II local supplier', as defined under the DPIIT Notification No.P-45021/2/2017-PP(BE-II) dated 16.09.2020, shall be eligible to bid in procurements undertaken by procuring entities, except when Global tender enquiry has been issued. In global tender enquiries, 'Non-local suppliers' shall also be eligible to bid along with 'Class-I local suppliers' and 'Class-II local suppliers'. In procurement



of all goods, services or works, not covered by sub- para 3 (ii) above, and with estimated value of purchases less than Rs.200 Crore, in accordance with Rule 161(iv) of GFR, 2017, Global tender enquiry shall not be issued except with the approval of competent authority as designated by Department of Expenditure.

- iv. For the purpose of this order, 'Works' means all works as per Rule 130 of GFR 2017, and will also include 'turnkey works', Engineering, Procurement and Construction (EPC) contracts and service contracts including System Integrator (SI) contracts.

4. The list of items, in respect of which, local capacity with sufficient competition exists as per **Annexure-I**, will be reviewed at regular intervals with a view to increase number of items in this list.

5. Purchase preference shall be given to local suppliers in accordance with **para 3A & 3B** of DPIIT Order dated 16.09.2020, and extracts of the same given at **Appendix**.

6. Further, it has been decided to constitute a committee for independent verification of self-declarations and auditor's / accountant's certificates on random basis and in the case of complaints. The composition of the committee is given below:

Chairperson	DG, NISE
Member	Dir(JKJ)
Member	Dir(Wind)
External Expert	Dir(Technical), IREDA
Convener	Dir(RG)

7. Further, it has also been decided to constitute a committee to examine the grievances in consultation with stakeholders and recommend appropriate actions to the Competent Authority in MNRE. The composition of the Committee is given below:

Chairperson	EA
Member	Dir(Wind)
Member	Dir(JKJ)
Convener	Dir(RG)

8. The complaint fee of Rs.2 Lakh or 1% of the value of the local item being procured (subject to maximum of Rs.5 Lakh), whichever is higher, shall be paid in the form of online transaction or Demand Draft, drawn in favour of IREDA. In case the complaint is found to be incorrect, the complaint fee shall be forfeited. In case, the complaint is upheld and found to be substantially correct, deposited fee of the complainant would be refunded without any interest.

9. All other conditions, not stipulated in this order, shall be as laid down in the DPIIT's order No.P-45021/2/2017-PP (BE-II) dated 16.09.2020.

10. This order shall be applicable in respect of the procurements made by all attached or subordinate offices or autonomous body under the Ministry of New & Renewable Energy, Government of India including Government Companies as defined in the Companies Act, and /or the States and Local Bodies making procurement under all Central Schemes/ Central Sector Schemes where the Scheme is fully or partially funded by Government of India. The aforesaid order shall also be applicable in respect of funding of capital equipment by IREDA, PFC and REC, for all RE projects, for which the bids are issued on or after 1st April, 2021.



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11. Procuring entities as defined in the DPIIT's Order dated 16.09.2020 are advised to revise their tender documents fully complying with the said DPIIT's Order and the subsequent Orders that would be issued in this regard by DPIIT/this Ministry from time to time.

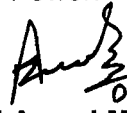
12. All tenders for procurement by Central Government Agencies have to be certified for compliance of the PPP-MII Order by the concerned procurement officer of the Government Organization before uploading in the portal.

13. In pursuance of the provision of para 13 of the DPIIT Order, 2020, equipment used in the renewable energy sector which are manufactured under license from foreign manufacturers holding intellectual property rights and where there is a transfer of technology agreement, if any, are listed as under Annexure-II. However, **Annexure-II** will undergo regular review to check for those items in the list for which sufficient local manufacturing capacity and competition have got developed and which meet minimum local content of 50% now, so that these items become eligible for inclusion in Annexure-I of this order and the provisions as contained in para 3 above of this order start becoming applicable in respect of these items too.

14. In terms of para 13A of DPIIT's Order dated 16.09.2020, the procuring entities, while procuring Solar PV Cells beyond 250 MW per annum, shall prescribe in their respective tenders that foreign companies shall enter into a joint venture with an Indian company to participate in the tender.

15. In order to further encourage Make in India initiative and promote manufacturing and production of goods and services in India, general guidelines as enclosed at **Annexure-III** may be adopted in an appropriate manner according to the circumstances by the procuring entities in their tendering process.

16. This issues in line with the approval from Hon'ble MoS (IC) for NRE and Power.


09/02/21
(Mohd Azmal Mansoori)
Scientist-B
Email: azmal.mnre@gov.in

To:

1. All Ministries/ Departments of Government of India (As per list)
2. Secretary (Coordination), Cabinet Secretariat
3. PS to PM, Prime Minister's Office
4. Vice Chairman, NITI Aayog
5. Chief Secretaries of all States/UTs
6. Director General, Comptroller and Auditor General of India
7. Secretary, DPIIT, Chairman of Standing Committee for implementation of Public Procurement Order, 2017
8. Joint Secretary, DPIIT, Member-Convener of Standing Committee for implementation of Public Procurement Order, 2017
9. Chairperson, CEA
10. CMDs of CPSEs under MNRE & MoP
11. All Group Heads in MNRE

Appendix

Extracts of important provisions contained in DPIIT Order No.P-45021/2/2017-PP (BE-II) dated 16th September, 2020

1. Definitions:

'Local content' means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

'Class-I local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-I local supplier' under this Order.

'Class-II local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-II local supplier' but less than that prescribed for Class-I local supplier' under this Order.

'Non-Local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than that prescribed for 'Class-II local supplier' under this Order.

'L1' means the lowest tender or lowest bid or the lowest quotation received in a tender, bidding process or other procurement solicitation as adjudged in the evaluation process as per the tender or other procurement solicitation.

'Margin of purchase preference' means the maximum extent to which the price quoted by a "Class-I local supplier" may be above the L1 for the purpose of purchase preference.

'Procuring entity' means a Ministry or department or attached or subordinate office of, or autonomous body controlled by, the Government of India and includes Government companies as defined in the Companies Act.

'Works' means all works as per Rule 130 of GFR- 2017, and will also include 'turnkey works'.

2. Eligibility of 'Class-I local supplier'/ 'Class-II local supplier'/ 'Non-local suppliers' for different types of procurement

a) In procurement of all goods, services or works in respect of which the Nodal Ministry / Department has communicated that there is sufficient local capacity and local competition, only 'Class-I local supplier', as defined under the Order, shall be eligible to bid irrespective of purchase value.

b) Only 'Class I local supplier' and 'Class-II local supplier', as defined under the Order, shall be eligible to bid in procurements undertaken by procuring entities, except when Global tender enquiry has been issued. In global tender enquiries, 'Non-local suppliers' shall also be eligible to bid along with 'Class-I local suppliers' and 'Class-II local suppliers'. In procurement of all goods, services or works, not covered

Crore, in accordance with Rule 161(iv) of GFR, 2017, Global tender enquiry shall not be issued except with the approval of competent authority as designated by Department of Expenditure.

c) For the purpose of this Order, works includes Engineering, Procurement and Construction (EPC) contracts and services include System Integrator (SI) contracts.

3A. Purchase Preference

a) Subject to the provisions of this Order and to any specific instructions issued by the Nodal Ministry or in pursuance of this Order, purchase preference shall be given to 'Class-I local supplier' in procurements undertaken by procuring entities in the manner specified here under.

b) In the procurements of goods or works, which are covered by para 2(b) above and which are divisible in nature, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract for full quantity will be awarded to L1.

ii. If L1 bid is not a 'Class-I local supplier', 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the 'Class-I local supplier' will be invited to match the L1 price for the remaining 50% quantity subject to the Class-I local supplier's quoted price falling within the margin of purchase preference, and contract for that quantity shall be awarded to such 'Class-I local supplier' subject to matching the L1 price, In case such lowest eligible 'Class-I local supplier' fails to match the L1 price or accepts less than the offered quantity, the next higher 'Class-I local supplier' within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local suppliers, then such balance quantity may also be ordered on the L1 bidder.

c) In the procurements of goods or works, which are covered by para 2(b) above and which are not divisible in nature, and in procurement of services where the bid is evaluated on price alone, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract will be awarded to L1.

ii. If L1 is not 'Class-I local supplier', the lowest bidder among the 'Class-I local supplier', will be invited to match the L1 price subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the L1 price.

iii. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price, the 'Class-I local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly, In case none of the 'Class-I local supplier' within the margin



of purchase preference matches the L1 price, the contract may be awarded to the L1 bidder.

d) "Class-II local supplier" will not get purchase preference in any procurement, undertaken by procuring entities.

3B. Applicability in tenders where contract is to be awarded to multiple bidders-

In tenders where contract is awarded to multiple bidders subject to matching of L1 rates or otherwise, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

a) In case there is sufficient local capacity and competition for the item to be procured, as notified by the nodal Ministry, only Class I local suppliers shall be eligible to bid. As such, the multiple suppliers, who would be awarded the contract, should be all and only Class I local suppliers'

b) In other cases, 'Class-II local suppliers' and 'Non local suppliers' may also participate in the bidding process along with 'Class I local suppliers' as per provisions of this Order.

c) If 'Class I local supplier' qualify for award of contract for at least 50% of the tendered quantity in any tender, the contract may be awarded to all the qualified bidders as per award criteria stipulated in the bid documents. However, in case 'Class I Local suppliers' do not qualify for award of contract for at least 50% if the tendered quantity, purchase preference should be given to the 'Class I local supplier' over 'Class II local suppliers'/ 'Non local suppliers' provided that their quoted rate falls within 20% margin of purchase preference of the highest quoted bidder considered for award of contract so as to ensure that the 'Class I Local suppliers' taken in totality are considered for award of contract for at least 50% of the tendered quantity.

d) First purchase preference has to be given to the lowest quoting 'Class I local supplier', whose quoted rates fall within 20% margin of purchase preference, subject to its meeting the prescribed criteria for award of contract as also the constraint of maximum quantity that can be sourced from any single supplier. If the lowest quoting 'Class I local supplier', does not qualify for purchases preference because of aforesaid constraints or does not accept the offered quantity, an opportunity may be given to next higher 'Class I local supplier' falling within 20% margin of purchase preference, and so on.

e) To avoid any ambiguity during bid evaluation process, the procuring entities may stipulate its own tender specific criteria for award of contract amongst different bidders including the procedure for purchase preference to 'Class I local supplier' within the broad policy guidelines stipulated in sub-paras above.

4. Exemption of small purchases: Procurements where the estimated value to be procured is less than Rs.5 Lakh shall be exempt from this Order. However, it shall be ensured by procuring entities that **procurement is not split for the purpose of avoiding the provisions of this Order.**

5. Minimum local content: The 'local content' requirement to categorize a supplier as 'Class-I local supplier' is minimum 50%. For 'Class-II local supplier', the 'local content' requirement is minimum 20%. Nodal Ministry/ Department may prescribe only a higher percentage of minimum local content requirement to categorize a supplier as 'Class-I local supplier' / 'Class-II local supplier'. For the items, for which Nodal Ministry/ Department has not prescribed higher minimum local content notification under the Order, it shall be 50% and 20 % for 'Class-I local supplier' / 'Class-II local supplier' respectively.

6. Margin of Purchase Preference: The margin of purchase preference shall be 20%.

7. Specifications in Tenders and other procurement solicitations.

a) Every procuring entity shall ensure that the eligibility conditions in respect of previous experience fixed in any tender or solicitation do not require proof of supply in other countries or proof of exports.

b) Procuring entities shall endeavor to see that eligibility conditions, including on matters like turnover, production capability and financial strength do not result in unreasonable exclusion of 'Class-I local supplier' / "Class-II local Supplier' who would other be eligible, beyond what is essential for ensuring quality or creditworthiness of the supplier.

c) Procuring entities shall, within 2 months of the issue of this Order review all existing eligibility norms and conditions with reference to sub-paragraphs 'a' and 'b' above.

d) Reciprocity Clause

i. When a Nodal Ministry/Department identifies that Indian suppliers of an item are not allowed to participate and/or compete in procurement by any foreign government, due to restrictive tender conditions which have direct or indirect effect of barring Indian companies such as registration in the procuring country, execution of projects of specific value in the procuring country etc., it shall provide such details to all its procuring entities including CMDs/CEOs of PSEs/PSUs, State Government and other procurement agencies under their administrative control and GeM for appropriate reciprocal action.

ii. Entities of countries which have been identifies by the nodal Ministry/Department as not allowing Indian companies to participate in their Government procurement for any item related to that nodal Ministry shall not be allowed to participate in Government procurement in India for all items related to that nodal Ministry/Department, except for the list of items published by the Ministry/Department permitting their participation.

iii. The stipulation in (ii) above shall be part of all tenders invited by the Central Government procuring entities stated in (i) above. All purchases on GeM shall also necessarily have the above provisions for items identified by nodal Ministry/Department.

iv. State Governments should be encouraged to incorporate similar provisions in their respective tenders.



v. The term 'entity' of a country shall have the same meaning as under the FDI Policy of DPIIT as amended from time to time.

e) Specifying foreign certifications/ unreasonable technical specifications/ Brands/ models in the bid document is restrictive and discriminatory practice against local suppliers. If foreign certification is required to be stipulated because of non-availability of Indian Standards and/or for any other reason, the same shall be done only after written approval of Secretary of the Department concerned or any other Authority having been designated such power by the Secretary of the Department concerned.

f) "All administrative Ministries/Departments whose procurement exceeds Rs.1000 Crore per annum shall notify/update their procurement projections every year, including those of the PSEs/PSUs, for the next 5 years on their respective website."



List of items of goods and services with sufficient local capacity and competition:

A. Small Hydro Power

1. Turbine
2. Generator
3. Penstock pipelines
4. Control panel
5. Governors
6. Cables
7. Valves
8. Transformers
9. Switchgears

B. Wind Power

1. Gear box,
2. Blades,
3. Rotor,
4. Generator,
5. Tower,
6. Hub,
7. Parts of controller,
8. Bearings,
9. Yaw mechanism components,
10. Nacelle

C. Off Grid/ Decentralised Solar Power

1. Solar street lights
2. Solar home lighting systems
3. Solar power packs
4. Micro grid
5. Solar water pumps
6. Inverters
7. Batteries



8. Other solar PV balance of system components for Off Grid/Decentralized solar power projects.

D. Grid connected Solar Power Projects

1. Solar modules
2. Solar inverters

E. Biomass Gasifier

1. Biomass gasifier reactor
2. Feed hopper
3. Ash removal system
4. Ash pump
5. Cyclone
6. Hot gas filter
7. Gas blower
8. Gas piping
9. Control panel
10. Platforms and ladders
11. Water seals
12. Gas burner for start up
13. Automatic gas burner

F. Biomass Cogeneration

1. Boiler and its auxiliaries including ESP
2. Turbines/ generator & its auxiliaries
3. Electrical evacuation and distribution system
4. Bagasse/biomass fuel storage and handling equipment
5. Ash handling systems
6. Cooling tower or air cooled condensers and its auxiliaries
7. Water treatment plant
8. Control system
9. Interface piping
10. EOT crane



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11. ETP

G. Municipal Solid Waste (MSW) Projects

1. Boiler
2. Flue gas cleaning system
3. Grab crane system
4. Waste processing system
5. Leachate treatment plant
6. Chimney
7. Water/air condenser
8. Turbine-generator,
9. Water treatment plant
10. Ash treatment plant
11. Control and instrumentation system

H. Waste to Energy (biogas/ bio-CNG)

1. Feed mixer
2. Tank
3. Mixing agitator
4. Feeding pump
5. Digester tank
6. Stirring agitator
7. Double membrane balloon
8. Liquid & gas piping systems
9. Biogas purification system
10. B-CNG booster compressor
11. B-CNG filling header
12. Cylinder casket
13. CNG dispenser
14. Power generator



ANNEXURE-II

The items manufactured under license from foreign manufacturers holding intellectual property rights and where there is a transfer of technology.

- Presently there is no entry for this Annexure.

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General guidelines to be adopted selectively in an appropriate manner by the procuring entities in their tender documents.

1. The bidder shall have to be an entity registered in India in accordance with law.
2. The bids shall be in the language as prescribed by the tenderer/procurer.
3. The bids shall be in Indian National Rupees (INR) only in respect of local content only.
4. Indian subsidiaries of foreign bidders shall meet the qualifying criteria in terms of capability, competency, financial position, past performance etc.
5. The bidder shall follow Indian laws, regulations and standards.
6. To be eligible for participation in the bid, foreign bidders shall compulsorily set up their manufacturing units on a long term basis in India as may be specified by the tenderer/procurer.
7. Similar or better technology than the technology offered in respect of material, equipment and process involved shall be transferred to India. Along with the transfer of technology, adequate training in the respective field shall also be provided.
8. Country of origin of the equipment/material shall be provided in the bid.
9. For supply of equipment / material from the country of origin other than India, the bidder shall submit performance certificate in support of satisfactory operation in India or a country other than the country of origin having climatic and operational conditions including ambient temperature similar to that of India for more than --- years (to be specified by the procurer).
10. The technologies/ products offered shall be environmentally friendly, consuming less energy, and safe, energy efficient, durable and long lasting under the prescribed operational conditions.
11. The supplier shall ensure supply of spares, materials and technological support for the entire life of the project.
12. The manufacturers/ supplier shall list out the products and components producing Toxic E-waste and other waste as may be specified. It shall have an Extended Producers Responsibility (EPR) so that after the completion of the lifecycle, the materials are safely recycled / disposed of by the Manufacturer/ supplier and for this, the Manufacturer/supplier along with procurer has to establish recycling / disposal unit or as may be specified.
13. Domestic Content requirement (based on the cost of the product) shall be in accordance with the conditions laid down in respective Order(s) of the sectors on Public Procurement (Preference to Make in India) to provide for purchase preference (linked with local content).



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14. The equipment/ material sourced from foreign companies may be tested in accredited labs in India before acceptance wherever such facilities are available.
 15. The Tender fee and the Bank Guarantee (BG) shall be in Indian Rupees only.
 16. The bidder shall have to furnish a certificate regarding cyber security/safety of the equipment/process to be supplied/services to be rendered as safe to connect.
 17. Applicable safety requirements shall be met. Regular safety audit shall be carried out by the manufacturer/ supplier.
 18. Statutory laws/regulations including the labour and environmental laws shall be strictly complied with during supply, storage, erection, commissioning and operation process. A regular compliance report shall be submitted to the procurer/appropriate Authorities.
 19. Formation of new joint venture in India shall be permitted only with the Indian companies.
 20. Tendering by the agent shall not be accepted.
 21. The original test report in the language prescribed by the procurer shall generally be accepted. Preferably the translated test report shall not be accepted. However, the notarized translation of test reports shall be accepted.
 22. Certification/compliance as per the Indian Standards/ International Standards/ Indian Regulations/ specified Standards shall be mandatory, where ever applicable.
 23. Quality assurance of the product shall be carried out by the procurer or an independent third party agency appointed by the procurer. Manufacturing Quality Plan as approved by the procurer shall be followed by the manufacturer/supplier.
 24. Wherever required, the foreign supplier shall establish fully functional service centers in India and shall keep spares/material locally for future needs of utilities.
 25. Arbitration proceedings shall be instituted in India only and all disputes shall be settled as per applicable Indian Laws.



Format of Undertaking
(To be sent by Issuing Bank through official email-ID)

From: xxxbank@xx.in

To: xxx@ntpc.co.in

We have issued BG No. dated for an amount of Rs. on behalf of.....[Name of Bidder] towards Bid Security / EMD for Tender No. in favour of [Name of Employer].

Please find enclosed the soft copy of the Bank Guarantee and SFMS acknowledgement. This SFMS is sent on (date).

Any demand / claim made by the 'Employer' shall be conclusive and binding on us irrespective of any dispute or difference raised by the Bidder till the validity period mentioned in the Bank Guarantee.

However, in absence of the physical copy of aforementioned BG with the Employer, we undertake that Employer's demand / claim will be binding and conclusive on us without the physical copy of aforementioned BG till fourteen (14) days from the due date of submission of Techno-Commercial bids.

We undertake not to cancel the aforementioned BG No. without written consent / instruction from Employer.

(Name of Bank Official)
Authority No.

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SECTION – IV

GENERAL CONDITIONS OF CONTRACT
(GCC)

Table of Clauses – General Conditions of Contract

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A. Contract and Interpretation

1. Definitions
2. Contract Documents
3. Interpretation
4. Notices
5. Governing Law
6. Settlement of Disputes

B. Subject Matter of Contract

7. Scope of Facilities
8. Time for Commencement and Completion
9. Contractor's Responsibilities
10. Employer's Responsibilities

C. Payment

11. Contract Price
12. Terms of Payment
13. Securities
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D. Intellectual Property

15. Copyright
16. Confidential Information

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19. Subcontracting
20. Design and Engineering
21. Procurement
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23. Test and Inspection
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28. Functional Guarantees
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- 44. Contractor Performance Feedback and Evaluation System
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- 58. Royalty
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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			A. Contract and Interpretation
1.	Definitions	1.1	Definitions The following words and expressions shall have the meanings hereby assigned to them: “Contract” means the Contract Agreement entered into between the Employer and the Contractor, together with the Contract Documents referred to therein; they shall constitute the Contract, and the term “the Contract” shall in all such documents be construed accordingly. “Contract Documents” means the documents listed in Article 1.1 (Contract Documents) of the Form of Contract Agreement (including any amendments thereto). “GCC” means the General Conditions of Contract hereof. “SCC” means the Special Conditions of Contract. “Day” means calendar day of the Gregorian Calendar. “Month” means calendar month of the Gregorian Calendar. “Employer” means the person named as such in the SCC and includes the legal successors or permitted assigns of the Employer. “Project Manager” means the person appointed by the Employer in the manner provided in GCC Sub-Clause 17.1 (Project Manager) hereof and named as such in the SCC to perform the duties delegated by the Employer. “Contractor” means the person(s) whose bid to perform the Contract has been accepted by the Employer and is named as such in the Contract Agreement, and includes the legal successors or permitted assigns of the Contractor. “Contractor’s Representative” means any person nominated by the Contractor and approved by the Employer in the manner provided in GCC Sub-Clause 17.2 (Contractor’s Representative and Construction Manager) hereof to perform the duties delegated by the Contractor. “Subcontractor,” including vendors, means any person to whom execution of any part of the Facilities, including preparation of any design or supply of any Plant and Equipment, is sub-contracted directly or indirectly by the Contractor, and includes its legal successors or permitted assigns. “Contract Price” means the sum specified in Article 2.1 (Contract Price) of the Contract Agreement, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract. “Facilities” means the Plant and Equipment to be supplied and installed, as well as all the Installation Services to be carried out by the Contractor under the Contract. “Plant and Equipment” means permanent plant, equipment, machinery,

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			apparatus, articles and things of all kinds to be provided and incorporated in the Facilities by the Contractor under the Contract (including the spare parts to be supplied by the Contractor under GCC Sub-Clause 7.3 hereof), but does not include Contractor's Equipment. "Installation Services" means all those services ancillary to the supply of the Plant and Equipment for the Facilities, to be provided by the Contractor under the Contract; e.g., transportation and provision of marine or other similar insurance, inspection, expediting, Site preparation works (including the provision and use of Contractor's Equipment and the supply of all construction materials required), installation, testing, pre-commissioning, commissioning, operations & maintenance required for achieving Completion of Facilities, the provision of operations and maintenance manuals, training of Employer's Personnel etc. "Contractor's Equipment" means all plant, facilities, equipment, machinery, tools, apparatus, appliances or things of every kind required in or for installation, completion and maintenance of Facilities that are to be provided by the Contractor, but does not include Plant and Equipment, or other things intended to form or forming part of the Facilities. "Site" means the land and other places upon which the Facilities are to be installed, and such other land or places as may be specified in the Contract as forming part of the Site. "Effective Date" means the date from which the Time for Completion shall be determined as stated in Article 3 (Effective Date for Determining Time for Completion) of the Form of Contract Agreement. "Time for Completion" means the time within which Completion of the Facilities as a whole (or of a part of the Facilities where a separate Time for Completion of such part has been prescribed) is to be attained in accordance with the stipulations in the SCC and the relevant provisions of the Contract. "Completion"/"Completion of Facilities"/"Completion of Facilities of entire Project" means that the Facilities (or a specific part thereof where specific parts are specified in the SCC) have been completed operationally and structurally and put in a tight and clean condition, and that all work in respect of Pre-commissioning of the Facilities or such specific part thereof has been completed; and Commissioning has been attained as per Technical Specifications. "Pre-commissioning" means the testing, checking and other requirements specified in the Technical Specifications that are to be carried out by the Contractor in preparation for Commissioning as provided in GCC Clause 24 (Completion) hereof. "Commissioning" means trial/initial operation of the Facilities or any part thereof by the Contractor, which operation is to be carried out by the Contractor as provided in GCC Sub-Clause 25.1 (Commissioning) hereof, for the purpose of carrying out Guarantee Test(s). "Guarantee Test(s)" means the test(s) specified in the Technical Specifications to be carried out to ascertain whether the Facilities or a specified part thereof is able to attain the Functional Guarantees specified in the Technical Specifications in accordance with the

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			provisions of GCC Sub-Clause 25.2 (Guarantee Test) hereof. “Operational Acceptance” means the acceptance by the Employer of the Facilities (or any part of the Facilities where the Contract provides for acceptance of the Facilities in parts), which certifies the Contractor's fulfilment of the Contract in respect of Functional Guarantees of the Facilities (or the relevant part thereof) in accordance with the provisions of GCC Clause 28 (Functional Guarantees) hereof and shall include deemed acceptance in accordance with GCC Clause 25 (Commissioning and Operational Acceptance) hereof. “Defect Liability Period” means the period of validity of the warranties given by the Contractor commencing at Completion of the Facilities or a part thereof, during which the Contractor is responsible for defects with respect to the Facilities (or the relevant part thereof) as provided in GCC Clause 27 (Defect Liability) hereof. “Goods and Services Tax” or “GST” means taxes levied under the Central Goods and Services Tax Act, Integrated Goods and Services Tax Act, Goods and Services Tax (Compensation to States) Act, and various State/Union Territory Goods and Services Tax Laws and applicable cesses, if any under the laws in force (hereinafter referred to as relevant GST Laws).
		1.2	“Sub-contractor from a country which shares a land border with India” means; a) An entity incorporated, established or registered in such a country; or b) A subsidiary of an entity incorporated, established or registered in such a country; or c) An entity substantially controlled through entities incorporated, established or registered in such a country; or d) An entity whose beneficial owner is situated in such a country; or e) An Indian (or other) agent of such an entity; or f) A natural person who is a citizen of such a country; or g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.

Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
		1.2.1	The beneficial owner for the purpose of clause “1.2” above will be as under; a) In case of company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means. Explanation i. “Controlling ownership interest” means ownership of or entitlement to more than twenty-five per cent of shares or capital or profits of the company; ii. “Control” shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholdings or management rights or shareholders agreements or voting agreements; b) In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more judicial person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership; c) In case of an unincorporated associations or body of individuals, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals; d) Where no natural person is identified under (a) or (b) or (c) above, the beneficial owner is the relevant natural person who holds the position of senior managing officials; e) In case of a trust, the identifications of beneficial owner(s) shall include identification of the author of trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
		1.2.2	An Agent for the purpose of clause “1.2” is a person employed to do any act for another, or to represent another in dealings with third person: [Note: i. A person who procures and supplies finished goods from an entity from a country which shares a land border with India will, regardless of the nature of his legal or commercial relationship with the producer of the goods, be deemed to be an Agent. ii. However, a person who only procures raw material, components etc. from an entity from a country which shares a land border with India and then manufactures or converts them into other goods will not be treated as an Agent.]
2.	Contract Documents		
		2.1	Subject to Article1.2 (Order of Precedence) of the Contract Agreement, all documents forming part of the Contract (and all parts thereof) are intended to be correlative, complementary and mutually explanatory.

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			The Contract shall be read as a whole.
		2.2	The Contract will be signed in three originals and the Contractor shall be provided with one signed original and the rest will be retained by the Employer.
		2.3	The Contractor shall provide free of cost to the Employer all the engineering data, drawing and descriptive materials submitted with the bid, in at least three (3) copies to form a part of the Contract immediately after Notification of Award.
		2.4	Subsequent to signing of the Contract, the Contractor at his own cost shall provide the Employer electronic version of the signed Contract Agreement on CD-ROM/ USB drive within thirty (30) days of its signing.
3.	Interpretation		
		3.1	Language
		3.1.1	Unless the Contractor is a national of the Employer's country and the Employer and the Contractor agree to use the local language, all Contract Documents, all correspondence and communications to be given, and all other documentation to be prepared and supplied under the Contract shall be written in English, and the Contract shall be construed and interpreted in accordance with that language.
		3.1.2	If any of the Contract Documents, correspondence or communications are prepared in any language other than the governing language under GCC Sub-Clause 3.1.1 above, the English translation of such documents, correspondence or communications shall prevail in matters of interpretation.
		3.1.3	The English Translation of the documents shall be carried out by professional translators and the translator shall certify that he is proficient in both languages in order to translate the document and that the translation is complete and accurate. Further, translation shall be authenticated by the Indian Consulate located in the Country where the documents have been issued or the Embassy of that Country in India.
		3.2	Singular and Plural The singular shall include the plural and the plural the singular, except where the context otherwise requires.
		3.3	Headings The headings and marginal notes in the General Conditions of Contract are included for ease of reference, and shall neither constitute a part of the Contract nor affect its interpretation.
		3.4	Persons Words importing persons or parties shall include firms, corporations and government entities.

Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
		3.5	Incoterms Unless inconsistent with any provision of the Contract, the meaning of any trade term and the rights and obligations of parties thereunder shall be as prescribed by Incoterms. Incoterms means international rules for interpreting trade terms published by the International Chamber of Commerce (latest edition), 38 Cours Albert 1er, 75008 Paris, France.
		3.6	Construction of the Contract
		3.6.1	The Contracts to be entered into between the Employer and the successful bidder shall be as under: - First Contract: For Ex-works (India) supply of Plant and Equipment ~~including type test charges and Mandatory spares.~~ - Second Contract: For providing all services i.e. inland transportation for delivery at site, inland transit insurance, unloading, storage, handling at site, installation (including civil, structural steel work & allied work, if applicable), insurance covers other than inland transit insurance, testing and commissioning and conducting guarantee tests in respect of all the Plant and Equipment supplied under the 'First Contract' and all other services specified in the Contract Documents. - "Third Contract" for Operation & Maintenance of complete Solar PV plant for a period of Ten (10) years from the date of successful completion of commissioning.
		3.6.2	The award of separate Contracts shall not in any way dilute the responsibility of the Contractor for the successful completion of the Facilities as per Contract Documents and a breach in one Contract shall automatically be construed as a breach of the other Contract(s) which will confer a right on the Employer to terminate the other Contract(s) also at the risk and the cost of the Contractor.
		3.7	Entire Agreement Subject to GCC Sub-Clause 16.4 hereof, the Contract constitutes the entire agreement between the Employer and Contractor with respect to the subject matter of Contract and supersedes all communications, negotiations and agreements (whether written or oral) of parties with respect thereto made prior to the date of Contract.
		3.8	Amendment No amendment or other variation of the Contract shall be effective unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party hereto.
		3.9	Independent Contractor The Contractor shall be an independent contractor performing the Contract. The Contract does not create any agency, partnership, joint

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			venture or other joint relationship between the parties hereto. Subject to the provisions of the Contract, the Contractor shall be solely responsible for the manner in which the Contract is performed. All employees, representatives or Subcontractors engaged by the Contractor in connection with the performance of the Contract shall be under the complete control of the Contractor and shall not be deemed to be employees of the Employer, and nothing contained in the Contract or in any subcontract awarded by the Contractor shall be construed to create any contractual relationship between any such employees, representatives or Subcontractors and the Employer.
		3.10	Joint Venture or Consortium If the Contractor is a joint venture or consortium of two or more firms, all such firms shall be jointly and severally bound to the Employer for the fulfilment of the provisions of the Contract and shall designate one of such firms to act as a leader with authority to bind the joint venture or consortium. The composition or the constitution of the joint venture or consortium shall not be altered without the prior consent of the Employer.
		3.11	Non-Waiver 3.11.1 Subject to GCC Sub-Clause 3.11.2 below, no relaxation, forbearance, delay or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect or restrict the rights of that party under the Contract, nor shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract. 3.11.2 Any waiver of a party's rights, powers or remedies under the Contract must be in writing, must be dated and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.
		3.12	Severability If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.
		3.13	Country of Origin "Origin" means the place where the materials, equipment and other supplies for the Facilities are mined, grown, produced or manufactured, and from which the services are provided.
4.	Notices	4.1	Unless otherwise stated in the Contract, all notices to be given under the Contract shall be in writing, and shall be sent by personal delivery, airmail post, special courier, or e-mail to the address of the relevant party set out in the Contract Coordination Procedure to be finalised pursuant to GCC Sub-Clause 17.2.3.1, with the following provisions. 4.1.1 Any notice sent by airmail post or special courier shall be deemed (in the absence of evidence of earlier receipt) to have been delivered ten (10) days after despatch. In proving the fact of despatch, it shall be sufficient to show that the envelope containing such notice was properly addressed, stamped and

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			conveyed to the postal authorities or courier service for transmission by airmail or special courier. 4.1.2 Any notice delivered personally or sent by e-mail shall be deemed to have been delivered on date of its despatch. 4.1.3 Either party may change its postal or e-mail address or addressee for receipt of such notices by ten (10) days' notice to the other party in writing.
		4.2	Notices shall be deemed to include any approvals, consents, instructions, orders and certificates to be given under the Contract.
5.	Governing Laws		
		5.1	The Contract shall be governed by and interpreted in accordance with laws in force in India. The Courts of Delhi shall have exclusive jurisdiction in all matters arising under the Contract.
6.	Settlement of Disputes		
		6.1	Mutual Consultation If any dispute of any kind whatsoever shall arise between the Employer and the Contractor in connection with or arising out of the Contract, including without prejudice to the generality of the foregoing, any question regarding its existence, validity or termination, or the execution of the Facilities, whether during the progress of the Facilities or after their completion and whether before or after the termination, abandonment or breach of the Contract, the parties shall seek to resolve any such dispute or difference by mutual consultation. On reference of such a dispute by either party, the Employer shall invite the Contractor for mutual consultation, within seven (07) working days of such reference. Without admitting the Employer's liability, the Employer may obtain, within 30 days of reference of the dispute, further details from the Contractor and examine it relating to the dispute. Such examination (if any) by the Employer shall not imply acceptance of the accuracy or completeness of the details. The Employer may hold discussions with Contractor with an effort to resolve the dispute. If the parties fail to resolve such a dispute or difference by mutual consultation within a period of forty-five (45) days from the date of reference of such dispute or within such extended period as the parties shall agree in writing, then the dispute may be settled through Independent Engineer (if applicable) and/ or Mediation through Independent External Monitors (if applicable) and/or through Conciliation and/or Arbitration (if applicable) / other remedies available under the applicable laws. Notwithstanding anything contained in any other law for the time being in force, the parties shall keep confidential all matters relating to the Mutual consultation proceedings. Confidentiality shall extend also to any agreement reached during Mutual consultation, except where its disclosure is necessary for purposes of implementation and enforcement.

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			The parties shall not rely on or introduce as evidence in Independent Engineer/ Mediation/ Conciliation/ Arbitral or Judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of the Mutual consultation proceedings- a) views expressed or suggestions made by the other party in respect of a possible settlement of the dispute; b) admissions made by the other party in the course of the mutual consultation proceedings; c) the fact that the other party had indicated his willingness to accept a proposal for mutual settlement.
		6.2	Deleted
		6.3	*Mediation through Independent External Monitors (IEMs) If the parties fail to resolve a dispute or difference by mutual consultation and through Independent Engineer (if applicable) within a period specified at Cl. 6.1 and 6.2 above, the dispute, if the parties agree, may be referred to the Panel of IEMs for Mediation. The Mediation proceedings shall be completed in a time bound manner, in not more than 45 days from the date of reference to IEMs for Mediation. The IEMs may conduct the Mediation proceedings in the manner, they consider appropriate. In case of 3-member Panel of IEMs, 2 members will constitute a valid quorum and the meeting can take place to proceed in the matter after seeking consent from the member who is not available. However, IEMs recommendations will be signed by all the members. The fees for such meetings shall be as specified in the SCC. The travel and stay arrangement for such meetings shall be equal to that of Independent Board Member of Employer's Organization. However, not more than five meetings shall be held for a particular dispute resolution. The fees/ expenses on dispute resolution shall be equally shared by both the parties. If decision of IEMs is acceptable to both the parties, a Settlement Agreement will be signed to the extent agreed by the parties within 15 days of acceptance by the parties and same shall be authenticated by all the IEMs. Notwithstanding anything contained in any other law for the time being in force, the Mediator and the parties shall keep confidential all matters relating to the Mediation proceedings. Confidentiality shall extend also to the settlement agreement, except where its disclosure is necessary for purposes of implementation and enforcement. The parties shall not rely on or introduce as evidence in Conciliation or Arbitral or Judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of the

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			Mediation proceedings,— a) views expressed or suggestions made by the other party in respect of a possible settlement of the dispute; b) admissions made by the other party in the course of the Mediation proceedings; c) proposals made by the Mediator; and d) the fact that the other party had indicated his willingness to accept a proposal for settlement made by the Mediator.
		6.4	Resolution of Dispute through Conciliation If the parties fail to resolve such a dispute or difference by mutual consultation and through Independent Engineer (if applicable) and/or through Mediation (if applicable) within a period as specified at Cl. 6.1, 6.2 and 6.3 above, the dispute if the parties agree, may be referred to Conciliation. (i) For cases where the disputed amount (Claim/ Counter claim, whichever is higher) is upto Rs. 25 Cr. (excluding interest), the matter for conciliation shall be referred to Expert Settlement Council (ESC), constituted by Employer. (ii) For cases where the disputed amount (Claim/ Counter claim, whichever is higher) is above Rs. 25 Cr. (excluding interest), the matter for conciliation shall be referred to Conciliation Committee of Independent Experts (CCIE), constituted by Ministry of Power (MoP). If the claim/Counter-claim is in foreign currency, the SBI Bills Selling Exchange rate prevailing on the date of claim shall be used for the purpose of converting the claim in Indian Rupee. The Conciliation process shall be conducted as per Part III of the Arbitration and Conciliation Act, 1996. In case of failure of the conciliation process at the level of the CCIE, the parties may withdraw from conciliation process and take recourse to the laid down legal process of Courts. The option of Arbitration would not be available once the conciliation mechanism through CCIE has been exercised. 6.4.1.Resolution of Dispute through Expert Settlement Council (ESC), constituted by EMPLOYER {For cases with Disputed amount (Claim/ Counter claim, whichever is higher) upto Rs. 25 Crore excl. interest} If the parties fail to resolve such a dispute or difference by mutual consultation and through Independent Engineer (if applicable) and/or through Mediation (if applicable) within a period specified at Cl. 6.1, 6.2 and 6.3 above, the dispute, if the parties agree, may be referred to Conciliation through Expert Settlement Council (ESC), in cases where the Disputed amount (Claim/ Counter claim, whichever is higher) is upto

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			Rs.25crore (excl. interest). 6.4.1.1. Invitation for Conciliation through ESC: 6.4.1.1.1. A party shall notify the other party in writing about such a dispute it wishes to refer for Conciliation through ESC within a period of 15 days from the date of failure to resolve the dispute through Mutual Consultation and Independent Engineer (if applicable) and/or through Mediation (if applicable) within a period as specified at Cl. 6.1, 6.2 and 6.3 above. Such Invitation for Conciliation shall contain sufficient information as to the dispute to enable the other party to be fully informed as to the nature of the dispute, amount of the monetary claim, if any, and apparent cause of action. 6.4.1.1.2. Upon acceptance of the invitation to conciliate, the other party shall submit its counter claim, if any, within a period of 15 days from the date of the invitation to conciliate. If the other party rejects the invitation or Disputed amount (Claim/ Counter claim, whichever is higher) exceeds Rs 25crore (excl. Interest), there will be no Conciliation proceedings through ESC. There shall be no Conciliation where disputed amount (Claim/ Counter claim, whichever is higher excl. interest) is only up to Rs 5 lakhs. 6.4.1.1.3. If the party initiating Conciliation does not receive a reply within fifteen (15) days from the date on which it sends the invitation, or within such other period of time as specified in the invitation, it shall treat this as a rejection of the invitation to conciliate from the other party. 6.4.1.2. Conciliation through ESC: 6.4.1.2.1. Where Invitation for Conciliation has been furnished under GCC sub clause 6.4.1.1, the parties shall attempt to settle such dispute through Expert Settlement Council (ESC) which shall be constituted by CMD/Chairman of Employer. 6.4.1.2.2. ESC will be formed from experts comprising three members from the panel of Conciliators maintained by EMPLOYER. However, there will be single member ESC for disputes involving disputed amount (Claim/ Counter claim, whichever is higher excl. interest) is up to Rs. 1 crore. CMD/ Chairman of Employer shall have the authority to reconstitute the ESC to fill any vacancy. 6.4.1.2.3. The ESC shall be amongst Civil Servants of Govt. of India retired from the level of Joint Secretary and above, Retired Judges, Officers retired from the level of Executive Director and above of any Maharatna /Navratna company in India, other than NTPC Ltd, Retired Independent Directors who have served on the Board of any Maharatna / Navratna company in India, other than NTPC Ltd. 6.4.1.3. Proceedings before ESC:

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)																
			6.4.1.3.1. The claimant shall submit its Statement of Claims (SOC) along with relevant documents to ESC members, and to the party(s) indicated in the appointment letter within 15 days of appointment of ESC. The respondent shall file its reply/Statement of Defence (SOD) and counter claim (if any) within 15 days of the receipt of the Statement of claims. Each party shall send a copy of such Statement along with relevant documents to the other party. Parties may file their rejoinder/additional documents, if any in support of their Claim/Counterclaim within next 7 days. No documents shall be allowed thereafter, except with the permission of ESC. 6.4.1.3.2. The parties shall file their claim and counterclaim in the following format - Chronology of the dispute - Brief of the contract - Brief history of the dispute - Issues <table border="1"> <thead> <tr> <th>Sl. No.</th><th>Description of Claims/ Counter claims</th><th>Amount (in foreign currency/INR)</th><th>Relevant Contract Clause</th></tr> </thead> <tbody> <tr> <td></td><td></td><td></td><td></td></tr> <tr> <td></td><td></td><td></td><td></td></tr> <tr> <td></td><td></td><td></td><td></td></tr> </tbody> </table> - Details of Claim(s)/Counter Claim(s) - Basis/Ground of claim(s)/counter claim(s) (along with relevant clause of contract) Note: Statement of claims shall be restricted to maximum limit of 20 pages. 6.4.1.3.3. In case of 3 members ESC, 2 members will constitute a valid quorum and the meeting can take place to proceed in the matter after seeking consent from the member who is not available. However, ESC recommendations will be signed by all the members. If required, meetings can be conducted through video conferencing/other digital means subject to the agreement between the parties and the ESC. 6.4.1.3.4. The parties shall be represented by their in house employees. No party shall be allowed to bring any advocate or outside consultant/advisor/agent to contest on their behalf. Ex-officers of Employer's Organization who have handled the subject matter in any capacity shall not be allowed to attend and present the case before ESC on behalf of contractor. However, ex-employees of parties may represent their respective organizations. Parties shall not claim any interest on claims/counter-claims from the date of notice invoking Conciliation till execution of settlement agreement, if so arrived. In case, parties are unable to reach a settlement, no interest shall be claimed by either party for the period from the	Sl. No.	Description of Claims/ Counter claims	Amount (in foreign currency/INR)	Relevant Contract Clause												
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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)																											
			date of notice invoking Conciliation till the date of ESC recommendations and 30 days thereafter in any further proceeding. 6.4.1.3.5. ESC will conclude its proceedings in maximum 10 meetings, and give its recommendations within 90 days from the date of reference to ESC. ESC will give its recommendations to both the parties recommending possible terms of settlement.CMD/ Chairman of Employer may extend the time/number of meetings, in exceptional cases, if ESC requests for the same with sufficient reasons and as agreed by the parties. 6.4.1.3.6. Depending upon the location of ESC members and the parties, the venue of the ESC meeting shall be either Delhi/Mumbai/Kolkata/Chennai or any other city whichever is most economical from the point of view of travel and stay etc. All the expenditure incurred in ESC proceedings shall be shared by the parties in equal proportion. 6.4.1.4. Fees & Facilities to the Members of the ESC The cost of Conciliation proceedings including but not limited to fees for Conciliator, Airfare, Local transport, Accommodation, cost towards conference facility etc shall be as provided herein below: <table><tr><th>Sl. No.</th><th>Fees/ Facility</th><th>Entitlement</th></tr><tr><td>1</td><td>Fees</td><td>Rs. 25,000 per meeting subject to max. of Rs. 2,50,000 per case per Conciliator.</td></tr><tr><td>2</td><td>Secretarial expenses</td><td>Rs. 10,000 lump sum (to 1 member only).</td></tr><tr><td>3</td><td>Transportation in the city of the meeting</td><td>Car as per entitlement or Rs. 2,000 per day</td></tr><tr><td>4</td><td>Venue for meeting</td><td>Employer's conference rooms</td></tr><tr><td colspan="3">Facilities to be provided to the out-stationed member</td></tr><tr><td>5</td><td>Travel from the city of residence to the city of meeting</td><td>As per entitlement of Independent Directors. Executive class air tickets / first class AC train tickets/ Luxury car/ reimbursement of actual fare. However, entitlement of air travel by Business class shall be subject to austerity measures, if any, ordered by Govt of India.</td></tr><tr><td>6</td><td>Transport to and fro airport/ railway station in the city of residence</td><td>Car as per entitlement or Rs. 3,000</td></tr><tr><td>7</td><td>Stay for out stationed members</td><td>As per entitlement of Independent Directors.</td></tr></table>	Sl. No.	Fees/ Facility	Entitlement	1	Fees	Rs. 25,000 per meeting subject to max. of Rs. 2,50,000 per case per Conciliator.	2	Secretarial expenses	Rs. 10,000 lump sum (to 1 member only).	3	Transportation in the city of the meeting	Car as per entitlement or Rs. 2,000 per day	4	Venue for meeting	Employer's conference rooms	Facilities to be provided to the out-stationed member			5	Travel from the city of residence to the city of meeting	As per entitlement of Independent Directors. Executive class air tickets / first class AC train tickets/ Luxury car/ reimbursement of actual fare. However, entitlement of air travel by Business class shall be subject to austerity measures, if any, ordered by Govt of India.	6	Transport to and fro airport/ railway station in the city of residence	Car as per entitlement or Rs. 3,000	7	Stay for out stationed members	As per entitlement of Independent Directors.
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			8	Transport in the city of meeting	Car as per entitlement or Rs. 2000 per day
			Aforesaid fees is subject to revision by Employer from time to time and subject to government guidelines on austerity measures, if any. All the expenditure incurred in the ESC proceedings shall be shared by the parties in equal proportions. The Parties shall maintain the account of expenditure and present to the other for the purpose of sharing on conclusion of the ESC proceedings. 6.4.1.5. If recommendations/ report of ESC is acceptable to both the parties, a Settlement Agreement under Section 73 of the Arbitration and Conciliation Act, 1996 will be signed to the extent agreed by the parties within 15 days of acceptance by the parties and same shall be authenticated by all the ESC members. Parties are free to terminate Conciliation proceedings at any stage as provided under the Arbitration and Conciliation Act 1996. 6.4.1.6. Notwithstanding anything contained in any other law for the time being in force, the Conciliator and the parties shall keep confidential all matters relating to the Conciliation proceedings. Confidentiality shall extend also to the settlement agreement, except where its disclosure is necessary for purposes of implementation and enforcement. The parties shall not rely on or introduce as evidence in Arbitral or judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of the Conciliation proceedings,— a) views expressed or suggestions made by the other party in respect of a possible settlement of the dispute; b) admissions made by the other party in the course of the Conciliation proceedings; c) proposals made by the Conciliator; and d) the fact that the other party had indicated his willingness to accept a proposal for settlement made by the Conciliator. 6.4.2. Resolution of Dispute through Conciliation Committee of Independent Experts (CCIE), constituted by Ministry of Power (MoP) {For cases with Disputed amount (Claim/ Counter claim whichever is higher) above Rs. 25 Crore excl. interest} If the parties fail to resolve such a dispute or difference by mutual consultation and through Independent Engineer (if applicable) and/or through Mediation (if applicable) within a period specified at Cl. 6.1, 6.2, 6.3 above, the dispute, if the parties agree, may be referred to Conciliation Committee of		

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			Independent Experts (CCIE), in cases where the Disputed amount (Claim/ Counter claim whichever is higher) is above Rs. 25 crore excl. interest. The option of Arbitration would not be available once the conciliation mechanism through CCIE has been exercised. 6.4.2.1. Invitation for Conciliation through CCIE: 6.4.2.1.1. A party shall notify the other party in writing about such a dispute it wishes to refer for CCIE within a period of 15 days from the date of failure to resolve the dispute through Mutual Consultation and Independent Engineer (if applicable) and/or through Mediation (if applicable) within a period as specified at Cl. 6.1, 6.2 and 6.3 above. Such Invitation for Conciliation shall contain sufficient information as to the dispute to enable the other party to be fully informed as to the nature of the dispute, amount of the monetary claim, if any, and apparent cause of action. 6.4.2.1.2. If the party initiating Conciliation does not receive a reply within fifteen (15) days from the date on which it sends the invitation, or within such other period of time as specified in the invitation, it shall treat this as a rejection of the invitation to conciliate from the other party. 6.4.2.2. Conciliation Committee of Independent Experts: 6.4.2.2.1. Where Invitation for Conciliation has been consented to under GCC sub clause 6.4.2.1, the same shall be referred to the Conciliation Committee of Independent Experts (CCIE) within 30 days. Conciliation Committees of Independent Experts (CCIE) have been constituted and notified by MoP for settlement of disputes arising in the Contract. There are three CCIEs, as specified in Special Conditions of Contract. 6.4.2.2.2. The Contractor may select three CCIEs, in priority order, from the list of CCIEs enclosed with the Special Conditions of Contract, for finalization by Central Electricity Authority (CEA). There shall not be any conflict of interest for the members of the CCIE due to their past assignments. Individuals CCIE members shall submit an undertaking in this regard to the Employer, prior to appointment. It shall be ensured that they have not been engaged for providing any services to any of the parties i.e. either Employer or the Contractor in the last five years. An Undertaking in this regard, shall also be furnished by the Contractor for the purpose of avoiding any conflict of interest. 6.4.2.3. Proceedings before CCIE: 6.4.2.3.1. The procedure of CCIE shall not be treated as alternate arbitration proceedings where both parties come with Statement of claims/defence, arguments/counter arguments, rejoinders, written submissions etc., aided by their respective lawyers.

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			6.4.2.3.2. The parties shall be brief and to the point before the Committee with regard to their respective stance and view the exercise in the spirit of conciliation/settlement. 6.4.2.3.3. The possibility of non-availability of any one of the members of CCIE in any proceedings cannot be ruled out. As such, the Committee comprising the other two members shall be competent to proceed in the matter. The proceedings of the Committee shall not be vitiated if one of the three members of CCIE is not present in the deliberations of the Committee. When the parties sign the settlement agreement, at least two members of CCIE shall authenticate the same. Such conciliation proceedings shall be considered valid and the settlement agreement will be binding on the parties. 6.4.2.3.4. The parties shall be represented by their in house employees. No party shall be allowed to bring any advocate or outside consultant/advisor/agent to contest on their behalf. Ex-officers of Employer's Organization who have handled the subject matter in any capacity shall not be allowed to attend and present the case before CCIE on behalf of contractor. However, ex-employees of parties may represent their respective organizations. 6.4.2.3.5. The Conciliation proceedings shall be completed in each case through 5 sittings in a period of not more than three months from the date the reference made to the CCIE. In exceptional cases, if any dispute so merits, the time period may be extended at the discretion of Conciliation Committee (with reasons to be recorded in writing), for a further period of three months. 6.4.2.3.6. The CCIE shall hold day to day sitting at a suitable place (preferably the headquarter of the Employer or New Delhi) and may hold as many sittings every month as it deems appropriate keeping in view the volume of work. 6.4.2.4. Fees & Facilities to the Members of the CCIE Each member of CCIE would be paid a sum of Rs. 50,000/- as sitting fee per sitting. In addition, Rs. 5,000/- per sitting will be paid for local transport charges for each day of proceeding. In case, a particular dispute requires more than 5 sittings, the same may be held at the discretion of the CCIE but with a cap on payment of fee for 5 sittings only. The local transport charges shall, however, be paid as provided for each day of sitting beyond the 5 sittings. All expenditure incurred on the conciliation proceedings including payment of fees to the Conciliators, office space, logistic, secretarial assistance and other incidental expenses etc. shall be borne by the Employer initially. Thereafter it shall be shared equally by both parties on completion of the conciliation process. 6.4.2.5. The Parties shall maintain the account of expenditure and present to the other for the purpose of sharing on conclusion of the CCIE proceedings.

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			The Conciliation process shall be conducted under Part III of the Arbitration and Conciliation Act, 1996. In case of failure of the conciliation process at the level of the Conciliation Committee, the parties may withdraw from conciliation process and take recourse to the laid down legal process of Courts. However, the option of Arbitration would not be available once the conciliation mechanism through CCIE has been exercised. In the event of the conciliation proceedings being successful, the parties to the dispute would sign the written settlement agreement and the conciliators would authenticate the same. Such settlement agreement would then be binding on the parties in terms of Section 73 of the Arbitration and Conciliation Act, 1996. After successful conclusion of proceedings, the Parties to the conciliation process, have to undertake and complete all necessary actions for implementation of the terms of settlement within a period of 30 days from execution of settlement agreement, unless a different timeline not exceeding 60 days is agreed upon in settlement agreement. All pending claims of parties, in connection with the dispute, before any other legal forum are to be withdrawn within the said 30 days in pursuance of the settlement agreement. 6.4.2.6. Notwithstanding anything contained in any other law for the time being in force, the Conciliator and the parties shall keep confidential all matters relating to the Conciliation proceedings. Confidentiality shall extend also to the settlement agreement, except where its disclosure is necessary for purposes of implementation and enforcement. The parties shall not rely on or introduce as evidence in Arbitral or judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of the Conciliation proceedings,— a) views expressed or suggestions made by the other party in respect of a possible settlement of the dispute; b) admissions made by the other party in the course of the Conciliation proceedings; c) proposals made by the Conciliator; and d) the fact that the other party had indicated his willingness to accept a proposal for settlement made by the Conciliator.
		6.5	6.5. Arbitration 6.5.1. If the process of mutual consultation and IE (if applicable) and/or Mediation (if applicable) and/or ESC fails to arrive at a settlement between the parties and/or settlement of dispute through CCIE not exercised as mentioned at GCC Sub-Clauses 6.1, 6.2, 6.3, 6.4 above, Employer or the Contractor

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			may, within Thirty (30) days of such failure, give notice to the other party, of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. The mechanism of settling the disputes through arbitration shall be applicable only in cases where the disputed amount (i.e. Claim/ Counter claim, whichever is higher, excluding interest) does not exceed Rs. 25 crores. If the claim/ counter claim is in foreign currency, the SBI Bills Selling Exchange rate prevailing on the date of claim shall be used for the purpose of converting the claim in Indian Rupee In case the disputed amount (Claim/ Counter claim, whichever is higher, excl. interest) exceeds Rs. 25 Crores, the parties shall be within their rights to take recourse to remedies as may be available to them under the applicable laws other than Arbitration after prior intimation to the other party. There shall be no arbitration where the disputed amount (Claim/ counter claim, whichever is higher) is only up to Rs. 5 lakhs. The parties at the time of invocation of arbitration shall submit all the details of the claims and the counter-claims including the Heads/Sub-heads of the Claims/Counter-Claims and the documents relied upon by the parties for their respective claims and counter-claims. The parties shall not file any documents/details of the claims and counter-claims thereafter. The claims and the counter claims raised by the parties at the time of invocation of the arbitration shall be final and binding on the parties and no further change shall be allowed in the same at any stage during arbitration under any circumstances whatsoever. The parties to the contract shall invoke arbitration within Six months from the date of completion of the Facilities under the contract or the termination of the contract as the case may be and the parties shall not invoke arbitration later on after expiry of the said period of six months. In case, no claim is filed within this period of six months, it shall be presumed that there is no claim. Any claim filed after the aforesaid period of six months shall not be entertained. 6.5.2. Any dispute in respect of which a notice of intention to commence arbitration has been given, in accordance with GCC Sub Clause 6.5.1, shall be finally settled by arbitration. 6.5.3. It is agreed between the parties that the Arbitration proceedings shall be conducted as per the provisions of Fast Track Procedure as provided under The Arbitration and Conciliation Act, 1996, as amended from time to time. Any dispute raised by a party to arbitration shall be adjudicated by a Sole Arbitrator appointed by mutual consent from among the List of empanelled Arbitrators maintained by EMPLOYER, in the following manner: a) A party willing to commence arbitration proceeding shall

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			invoke Arbitration Clause by giving notice to the other party. b) EMPLOYER, shall within 30 days from the receipt of such notice shall send a panel of at least four arbitrators from among its empanelled arbitrators to the Contractor for short listing two among them for such appointment, within 15 days from the date of receipt of the Panel of Arbitrators from EMPLOYER. c) CMD/ Chairman of Employer shall appoint the sole arbitrator from among the two names short listed by the Contractor, within 15 days from the receipt of such nomination. Notice to the Parties of the constitution of the arbitral tribunal shall be issued by EMPLOYER. In case, the contractor fails to inform its shortlisted names for appointment of sole arbitrator from the panel of at least four arbitrators sent by the Employer or no response is received from the contractor, within 15 days from the date of receipt of the Panel of Arbitrators from EMPLOYER, CMD/ Chairman of Employer shall appoint the sole arbitrator from among the four names sent to the contractor earlier. d) If the Arbitrator so appointed dies, resigns, becomes incapacitated or withdraws for any reason from the proceedings or his mandate is terminated by the Court, it shall be lawful for CMD/ Chairman of Employer to appoint another person in his place in the same manner as aforesaid. Such person shall proceed with the reference from the stage where his predecessor had left. e) Arbitrator shall be paid fees as per the Fee Schedule (presently Fourth Schedule) provided in 'The Arbitration and Conciliation Act, 1996' as amended from time to time. If the claim/ counter claim is in foreign currency, the SBI Bills Selling Exchange rate prevailing on the date of claim shall be used for the purpose of converting the claim in Indian Rupee which may be used for determining the arbitration fee. f) If after commencement of the Arbitration proceedings, the parties agree to settle the dispute mutually or refer the dispute to mediation or Conciliation, the arbitrator shall put the proceedings in abeyance until such period as requested by the parties. Where the proceedings are put in abeyance or terminated on account of mutual settlement of dispute by the parties, the fees payable to the arbitrator shall be determined as under: (i) 40% of the fees if the Pleadings are complete. (ii) 60% of the fees if the Hearing has commenced. (iii) 80% of the fees if the Hearing is concluded but the Award is yet to be passed. g) Each party shall pay its share of arbitrator's fees in stages

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			as under or as per the directions of Arbitrator: (i) 40 % of the fees on Completion of Pleadings. (ii) 40% of the fees on Conclusion of the Final Hearing. (iii) 20% at the time when arbitrator notifies the date of final award. h) The Claimant shall be responsible for making all necessary arrangements for the travel/ stay of the Arbitrator including venue of arbitration, hearings. The parties shall share the expenses for the same equally. i) The Arbitration shall be held at Delhi only. j) The Arbitrator shall give reasoned and speaking award and it shall be final and binding on the parties. k) Subject to the aforesaid conditions, provisions of the Arbitration and Conciliation Act, 1996 and any statutory modifications or re-enactment thereof as amended from time to time, shall apply to the arbitration proceedings under this clause. 6.5.4. In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract (s) between Central Public Sector Enterprises (CPSEs)/ Port Trusts inter se and also between CPSEs and Government Departments/ Organizations (excluding taxation matters), such disputes or difference shall be taken up by either party for resolution through Administrative Mechanism for Resolution of CPSEs Disputes (AMRCD) as mentioned in DPE Office Memorandum No. 4(1)/2013- DPE(GM)/FTS-1835 dated 22.05.2018 issued by Department of Public Enterprises, Ministry of Heavy Industries and Public Enterprises, Government of India and its further clarifications, modifications and amendments, issued from time to time. The aforesaid limit of Rs 25 crore shall not be applicable and matter may be referred to AMRCD irrespective of the amount involved in dispute, if the dispute could not be resolved through Mutual Consultation and IE (if applicable) as brought out at GCC Sub Clause 6.1 and 6.2 above.

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		6.6	Notwithstanding any reference to the Independent Engineer or Mediation or Conciliation or Arbitration herein, (a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree. (b) the Employer shall pay the Contractor any monies due to the Contractor. Settlement of Dispute clause cannot be invoked by the Contractor, if the Contract has been mutually closed or 'No Demand Certificate' has been furnished by the Contractor or any Settlement Agreement has been signed between the Employer and the Contractor.
			B. Subject Matter of Contract
7.	Scope Of Facilities		
		7.1	Unless otherwise expressly limited in the Technical Specifications, the Contractor's obligations cover the provision of all Plant and Equipment including structural steel and the performance of all Installation Services and civil works, allied works etc. required for the design, the manufacture (including procurement, quality assurance, construction, installation, associated civil works, Pre-commissioning and delivery) of the Plant and Equipment and the installation, completion, commissioning and performance testing of the Facilities in accordance with the plans, procedures, specifications, drawings, codes and any other documents as specified in the Technical Specifications. Such specifications include, but are not limited to, the provision of supervision and engineering services; the supply of labour, materials, equipment, spare parts (as specified in GCC Sub-Clause 7.3 below) and accessories; Contractor's Equipment; construction utilities and supplies; temporary materials, structures and facilities; transportation (including, without limitation, unloading and hauling to, from and at the Site); and storage, except for those supplies, works and services that will be provided or performed by the Employer, as set forth in Appendix 6 (Scope of Works and Supply by the Employer) to the Contract Agreement.
		7.2	The Contractor shall, unless specifically excluded in the Contract, perform all such work and/or supply all such items and materials not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining Completion of the Facilities as if such work and/or items and materials were expressly mentioned in the Contract.
		7.3	~~In addition to the supply of Mandatory Spare Parts included in the Contract, the Contractor agrees to supply spare parts required for the operation and maintenance of the Facilities. However, the identity, specifications and quantities of such spare parts and the terms and conditions relating to the supply thereof are to be agreed between the Employer and the Contractor, and the price of such spare parts shall be that given in Price Schedule No. 6, which shall be added to the Contract Price. The price of such spare parts shall include the purchase price therefor and other costs and expenses (including the Contractor's fees) relating to the supply of spare parts. Prices of recommended spares covered under price Schedule No. 6 shall be kept valid for a period of six (6) months after placement of Notification of Award for Main Equipment and Mandatory spares.~~

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			~~7.3.1 The Contractor agrees that the spare parts recommended by him for 3 years operation and quoted in Schedule No. 6 shall be supplied by him at the same terms and conditions as are otherwise applicable to this Contract. Further, the Contractor also agrees to supply spare parts required for the operation and maintenance of the Facilities as per provision of subsequent paragraphs of this Sub-Clause.~~ ~~7.3.1.1 All the spares for the equipment under the Contract will strictly conform to the Specification and other relevant documents and will be identical to the corresponding main equipment/ components supplied under the Contract and shall be fully interchangeable.~~ ~~7.3.1.2 All the mandatory spares covered under the Contract shall be produced along with the main equipment as a continuous operation and the delivery of the spares will be effected along with the main equipment in a phased manner and the delivery would be completed by the respective dates for the various categories of equipment as per the agreed network. In case of recommended spares the above will be applicable provided the order for the recommended spares have been placed with the Contractor prior to commencement of manufacture of the main equipment.~~ ~~7.3.1.3 The Contractor will provide the Employer with the manufacturing drawings, catalogues, assembly drawings and any other document required by the Employer so as to enable the Employer to identify the recommended spares. Such details will be furnished to the Employer as soon as they are prepared but in any case not later than six months prior to commencement of manufacture of the corresponding main equipment.~~ ~~7.3.1.4 To enable the Employer to finalise the requirement of recommended spares which are ordered subsequent to placement of order for main equipment/plant, in addition to necessary technical details, catalogue and such other information brought out herein above, the Contractor will also provide a justification in support of reasonableness of the quoted prices of spares which will, inter-alia, include documentary evidence that the prices quoted by the Contractor to the Employer are not higher than those charged by him from other customers in the same period.~~ ~~7.3.1.5 In addition to the spares recommended by the Contractor, if the Employer further identifies certain items of spares, the Contractor will submit the prices and delivery quotation for such spares within thirty (30) days of receipt of such request with a validity period of six (6) months for consideration by the Employer and placement of order for additional spares if the Employer so desires.~~ ~~7.3.1.6 The quality plan and the inspection requirement finalised for the main equipment will also be applicable to the corresponding spares.~~ ~~7.3.1.7 The Contractor will provide the Employer with all the addresses and particulars of his sub-suppliers while placing~~

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			~~the order on vendors for items/components/equipment covered under the Contract and will further ensure with his vendors that the Employer, if so desires, will have the right to place order for spares directly on them on mutually agreed terms based on offers of such vendors.~~ ~~7.3.1.8 The Contractor shall guarantee the long term availability of spares to the Employer for the full life of the equipment covered under the Contract. The Contractor shall guarantee that before going out of production of spare parts of the equipment covered under the Contract, he shall give the Employer at least 2 years advance notice so that the latter may order his bulk requirement of spares, if it so desires. The same provision will also be applicable to Sub-contractors. Further, in case of discontinuance of manufacture of any spares by the Contractor and/or his Sub-contractor, Contractor will provide the Employer, two years in advance, with full manufacturing drawings, material specification and technical information including information on alternative equivalent makes required by the Employer for the purpose of manufacture/procurement of such items.~~ ~~7.3.1.9 The prices of all future requirements of item of spares beyond 3 years operational requirement will be derived from the corresponding ex-works price at which the order for such spares have been placed by Employer as a part of mandatory spares or recommended spares, or from the rates of mandatory spares or recommended spares as quoted by/negotiated with the Contractor. Ex-works order price of future spares shall be computed in accordance with the price adjustment provisions covered under the main Contract and there will be no ceiling on the amount of variation in the prices. The above option for procuring future recommended spares by the Employer shall remain valid for the period of 5 years from the date of Commissioning of the equipment.~~ ~~7.3.1.10 The Contractor will indicate in advance the delivery period of the items of spares, which the Employer may procure in accordance with above sub-clause. In case of emergency requirements of spares, the Contractor would make every effort to expedite the manufacture and delivery of such spares on the basis of mutually agreed time schedule.~~ ~~7.3.1.11 In case the Contractor fails to supply the mandatory, recommended spares or long term spares in the terms stipulated above, the Employer shall be entitled to purchase the same from the alternate sources at the risk and the cost of the Contractor and recover from the Contractor, the excess amount paid by the Employer over the rates worked on the above basis. In the event of such risk purchase by the Employer, the purchases will be as per the Works and Procurement Policy of the Employer prevalent at the time of such purchases and the Employer at his option may include a representative from the Contractor in finalising the purchases.~~ ~~7.3.1.12 It is expressly understood that the final settlement between the parties in terms of relevant clauses of the Contract Documents shall not relieve the Contractor of any of his obligations under the provision of long term availability of~~

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			~~spares and such provisions shall continue to be enforced till the expiry of 5 years period reckoned from the scheduled date of Commissioning of the Plant and Equipment unless otherwise discharged expressly in writing by the Employer. Further, the provisions pertaining to long term availability of spares shall be extended beyond 5 years applicability period mentioned hereinabove if so desired by the Employer and at the mutually acceptable escalation formula.~~ ~~7.3.1.13 The Contractor shall warrant that all spares supplied will be new and in accordance with the Contract Documents and will be free from defects in design, material and workmanship and shall further guarantee as under:~~ ~~(i) For 3 years operational spares (both mandatory and recommended)~~ ~~a) For any item of spares ordered or to be ordered by the Employer for 3 years operational requirement of the plant which are manufactured as a continuous operation together with the corresponding main equipment/component, the Defect Liability Period will be twelve (12) months from the scheduled date of commercial operation of main equipment/plant under the Contract or 2 months from the date of Completion of Facilities whichever is earlier. 'Commercial Operation' shall mean the conditions of operation in which the complete equipment covered under the Contract is officially declared by the Employer to be available for continuous operation at different loads up to and including rated capacity. Such declaration by the Employer, however, shall not relieve or prejudice the Contractor any of his obligations under the Contract. In case of any failure in the original component/ equipment due to faulty designs, materials and workmanship, the corresponding spare parts, if any, supplied will be replaced without any extra cost to the Employer unless a joint examination and analysis by the Employer and the Contractor of such spare parts prove that the defect found in the original part that failed, can safely be assumed not to be present in spare parts. Such replaced spare parts will have the same Defect Liability as applicable to the replacement made for the defective original part/component provided that such replacement for the original equipment and the spare replaced are again manufactured together. The discarded spare parts will become the property of the Contractor as soon as they have been replaced by the Contractor.~~ ~~b) For the item of spares ordered or to be ordered by the Employer for 3 years operational requirement of the plant, which with the written approval of the Employer, are not manufactured as a continuous operation will be warranted for 7000 hrs of trouble~~

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			~~free operation if used within a period of eighteen (18) months reckoned from the date of delivery at site. However, if such spare parts are put to use after eighteen (18) months of the delivery at Site then the guarantee of such spares will stand valid till the expiry of thirty six (36) months from the scheduled date of Commissioning of equipment/plant covered under the contract or 7000 hrs of trouble free operation after such spares are put in service, whichever is earlier.~~ (ii) ~~For long term requirement~~ ~~For item of spares that may be ordered by the Employer to cover requirements beyond 3 years of Initial Operation of the plant, the warranty will be till the expiry of 7000 hrs of trouble free operation if used within a period of eighteen (18) months from the date of delivery at site. For item of spares that may be used after eighteen (18) months from the date of delivery at site, the warranty period will be twel from the date they are put to use or 7000 hrs of trouble free operation, whichever is earlier. In any case the defect liability of spares will expire at the end of forty eight (48) months from the date of their receipt at site.~~ (iii) ~~The Defect Liability of spares covered in para (i) & (ii) above, that are not used within 18 months from the respective date of the delivery at Site will, however, be subject to condition that all such spares being stored/ maintained/ preserved in accordance with Contractor's standard recommended practice, if any, and the same has been furnished to the Employer.~~
8.	Time for Commencement and Completion		
		8.1	The Contractor shall commence work on the Facilities from the date of Notification of Award and without prejudice to GCC Sub-Clause 26.2 hereof, the Contractor shall thereafter proceed with the Facilities in accordance with the time schedule specified in Appendix 4 (Time Schedule) to the Contract Agreement.
		8.2	The Contractor shall attain Completion of the Facilities (or of a part where a separate time for Completion of such part is specified in the Contract) within the time stated in the SCC or within such extended time to which the Contractor shall be entitled under GCC Clause 40 (Extension of Time for Completion) hereof.
9.	Contractor's Responsibilities		
		9.1	The Contractor shall design, manufacture (including associated purchases and/or subcontracting), install and complete the Facilities with due care and diligence in accordance with the Contract.
		9.2	The Contractor confirms that it has entered into this Contract on the basis of a proper examination of the data relating to the Facilities (including anv data as to boring tests) provided by the Employer. and on

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			the basis of information that the Contractor could have obtained from a visual inspection of the Site (if access thereto was available) and of other data readily available to it relating to the Facilities as at the date fifteen (15) days prior to deadline set for price bid submission. The Contractor acknowledges that any failure to acquaint itself with all such data and information shall not relieve its responsibility for properly estimating the difficulty or cost of successfully performing the Facilities.
		9.3	The Contractor shall acquire in its name all permits, approvals and/or licenses from all local, state or national government authorities or public service undertakings in the country where the Site is located that are necessary for the performance of the Contract, including, without limitation, visas for the Contractor's and Subcontractor's personnel and entry permits for all imported Contractor's Equipment. The Contractor shall acquire all other permits, approvals and/or licenses that are not the responsibility of the Employer under GCC Sub-Clause 10.3 hereof and that are necessary for the performance of the Contract.
		9.4	The Contractor shall comply with all laws in force in the country where the Facilities are installed and where the Installation Services are carried out. The laws will include all national, provincial, municipal or other laws that affect the performance of the Contract and bind upon the Contractor. The Contractor shall indemnify and hold harmless the Employer from and against any and all liabilities, damages, claims, fines, penalties and expenses of whatever nature arising or resulting from the violation of such laws by the Contractor or its personnel, including the Subcontractors and their personnel, but without prejudice to GCC Sub-Clause 10.1 hereof.
		9.5	Any Plant, Material and Services that will be incorporated in or be required for the Facilities and other supplies shall have their origin as specified under GCC Clause 3.13 (Country of Origin).
10.	Employer's Responsibilities		
		10.1	The Employer shall ensure the accuracy of all information and/or data to be supplied by the Employer as described in Appendix 6 (Scope of Works and Supply by the Employer) to the Contract, except when otherwise expressly stated in the Contract.
		10.2	The Employer shall be responsible for acquiring and providing legal and physical possession of the Site and access thereto, and for providing possession of and access to all other areas reasonably required for the proper execution of the Contract, including all requisite rights of way, as specified in Appendix 6 (Scope of Works and Supply by the Employer) to the Contract Agreement. The Employer shall give full possession of, and accord all rights of access thereto on or before the date(s) specified in Appendix 6. The Employer reserves the right to hand over the Site in parts progressively to the Contractor. The Contractor will be required to take possession of the Site without any undue delay and do work on the released fronts in parts without any reservation whatsoever.
		10.3	~~The Employer shall acquire and pay for all permits, approvals and/or licenses from all local, state or national government authorities or public service undertakings in the country where the Site is located which such~~

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			~~authorities or undertakings require the Employer to obtain them in the Employer's name, are necessary for the execution of the Contract (they include those required for the performance by both the Contractor and the Employer of their respective obligations under the Contract), including those specified in Appendix 6 (Scope of Works and Supply by the Employer) to the Contract Agreement.~~
		10.4	If requested by the Contractor, the Employer shall use its best endeavours to assist the Contractor in obtaining in a timely and expeditious manner all permits, approvals and/or licenses necessary for the execution of the Contract from all local, state or national government authorities or public service undertakings that such authorities or undertakings require the Contractor or Subcontractors or the personnel of the Contractor or Subcontractors, as the case may be, to obtain.
		10.5	Unless otherwise specified in the Contract or agreed upon by the Employer and the Contractor, the Employer shall provide sufficient, properly qualified operating and maintenance personnel; shall supply and make available all raw materials, utilities, lubricants, chemicals, catalysts, other materials and facilities ; and shall perform all work and services of whatsoever nature, to enable the Contractor to properly carry out Pre-commissioning, Commissioning and Guarantee Tests, all in accordance with the provisions of Appendix 6 (Scope of Works and Supply by the Employer) to the Contract Agreement at or before the time specified in the program furnished by the Contractor under GCC Sub-Clause 18.2 (Program of Performance) hereof and in the manner thereupon specified or as otherwise agreed upon by the Employer and the Contractor.
		10.6	The Employer shall be responsible for the continued operation of the Facilities after Completion, in accordance with GCC Sub-Clause 24.8, and shall be responsible for facilitating the Guarantee Test(s) for the Facilities, in accordance with GCC Sub-Clause 25.2.
		10.7	All costs and expenses involved in the performance of the obligations under this GCC Clause 10 shall be the responsibility of the Employer, save those to be incurred by the Contractor with respect to the performance of Guarantee Tests, in accordance with GCC Sub-Clause 25.2.
C. Payment			
11.	Contract Price		
		11.1	The Contract Price shall be as specified in Article 2 (Contract Price and Terms of Payment) of the Form of Contract Agreement.
		11.2	The Contract Price shall be adjusted in accordance with provisions of Appendix-2 (Price Adjustment) to the Contract Agreement.
		11.3	Subject to GCC Sub-Clauses 9.2, 10.1 and 35 (Unforeseen Conditions) hereof, the Contractor shall be deemed to have satisfied itself as to the correctness and sufficiency of the Contract Price, which shall, except as otherwise provided for in the Contract, cover all its obligations under the Contract.

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12.	Terms of Payment		
		12.1	The Contract Price shall be paid as specified in Appendix 1 (Terms and Procedures of Payment) to the Contract Agreement. The procedures to be followed in making application for and processing payments shall be those outlined in the same Appendix 1.
		12.2	No payment made by the Employer herein shall be deemed to constitute acceptance by the Employer of the Facilities or any part(s) thereof.
		12.3	The currency or currencies in which payments are made to the Contractor under this Contract shall be specified in Appendix 1 (Terms and Procedures of Payment) to the Contract Agreement, subject to the general principle that payments will be made in the currency or currencies in which the Contract Price has been stated in the Contractor's bid.
		12.4	For payments related to Erection / Civil / Site Fabricated Structural works (if applicable as per EIC): ~~A single designated ESCROW account shall be opened by the Contractor in any Scheduled Bank of India under intimation to Employer. All payments related to Erection / Civil / Site Fabricated Structural works by the Employer due under the contract to the Contractor shall be released into above mentioned ESCROW account set up as per the Tri-Partite Escrow Agreement between Employer, Contractor and Escrow Bank. The payment shall be disbursed in accordance with the mechanism set out in the Contract and Escrow Agreement. The purpose of the Escrow Account would be to ensure that payments received under the contract are solely used for implementation of the Contract. Under Tripartite Escrow Agreement, the Escrow Bank will agree to ensure that amounts received in the ESCROW Account are utilized for making payments only to suppliers of goods and services, statutory authorities, establishment expenses etc. as may be required in the performance of the contract.~~ ~~All expenses/charges for opening /operation (including Annual Fee) of the Escrow Account shall be paid by the Contractor.~~ ~~The draft agreement is annexed as Annexure-III to Appendix 1 to Form of Contract Agreement, Section-VII, Book 3 of 3 (Part 1), which shall be followed for executing Escrow Account Agreement.~~ ~~The Detailed Operative Procedure and Terms and Conditions of Escrow Account (Schedule III of draft agreement) shall be finalized between the Employer, Contractor and the Escrow Bank within 15 days of the placement of award.~~
13.	Securities		
		13.1	Issuance of Securities The Contractor shall provide the securities specified below in favour of the Employer at the times, and in the amount, manner and form specified below.
		13.2	Advance Payment Security 13.2.1 The Contractor shall, within twenty-eight (28) days of the Notification of Award of Contract, provide a security in an amount equal to the advance payment for supply of Plant &

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			Equipment and 110% of the advance amount for Installation Services and Civil & Allied Works calculated in accordance with Appendix 1 (Terms and Procedures of Payment) to the Contract Agreement, and in the currency or currencies of the Contract, with an initial validity of up to ninety (90) days beyond the schedule date of Completion of the last facility covered under the package in accordance with GCC Clause 24. However, in case of delay in completion of the facilities under the package, the validity of this security shall be extended by the period of such delay. The advance payment security shall also cover the amount of GST as applicable on the advance payment to be paid to the contractor. 13.2.2 The security shall be in the form of an unconditional bank guarantee as per the proforma provided in Section VII (Forms and Procedures)- Form of Advance Payment Security. The Advance payment Security shall be reduced pro-rata every three (3) months after First Running Account Bill/Stage Payment under the Contract based on the value of the respective equipment/facilities received and applicable GST. The cumulative amount of reduction at any point of time shall not exceed ninety (90%) of the advance and the amount of GST paid on the advance amount corresponding to cumulative value of the respective equipment/Facilities supplied and received as per certificate issued by the Project Manager. The balance shall be released upon release of respective milestone linked payments as identified in Appendix-1 of form of Contract Agreement. In case milestone payment is not envisaged in the package, the balance shall be released after Completion of those Facilities on certification by the Project Manager. It should be clearly understood that reduction in the value of security for advance shall not in any way dilute the Contractor's responsibility and liabilities under the Contract including in respect of the Facilities for which the reduction in the value of security is allowed.
		13.3	Performance Security 13.3.1 The Contractor shall, within twenty-eight (28) days of the Notification of Award, provide securities for the due performance of the Contract as Specified in SCC for all the Contracts, with an initial validity up to ninety (90) days beyond the end of scheduled Defect Liability Period of the last equipment covered under the Contract. However, in case of delay in completion of the defect liability period, the validity of all the contract performance securities shall be extended by the period of such delay. 13.3.2 The performance security shall be denominated in the currency of the Contract and shall be in the form of unconditional bank guarantee provided in Section-VII (Forms and Procedures)-Form of Performance Security of the bidding documents. 13.3.3 Unless otherwise stipulated in SCC, the security shall be reduced pro rata to the Contract Price of a part of the Facilities for which a separate time for Completion is provided, twenty one (21) months after Completion of the Facilities or where relevant part thereof, or fifteen (15) months after Operational

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			Acceptance of the Facilities (or the relevant part thereof), whichever occurs first; provided, however, that if the Defects Liability Period has been extended on any part of the Facilities pursuant to GCC Sub-Clause 27.8 hereof, the Contractor shall issue an additional security in an amount proportionate to the Contract Price of that part. The security shall be returned to the Contractor immediately after its expiration, provided, however, that if the Contractor, pursuant to GCC Sub-Clause 27.10, is liable for an extended warranty obligation, the performance security shall be extended for the period and up to the amount agreed upon or as specified in the SCC.
		13.3.4	Whenever adjustments under Clause 39 [Change in the Facilities] result in an accumulative increase or decrease of the Contract Price by more than fifteen percent (15%) of the Contract Price stated in the Contract Agreement:
			(a) in the case of such an increase, at the Project Manager's request the Contractor shall promptly increase the amount of the Performance Security in that currency by a percentage equal to the accumulative increase; or (b) in the case of such a decrease, subject to the Project Manager's prior consent the Contractor may decrease the amount of the Performance Security in that currency by a percentage equal to the accumulative decrease.
		13.4	Security for Deed of Joint Undertaking ~~In case Deed(s) of Joint Undertaking by the Contractor along with his Collaborator(s) / Associate(s) form part of the Contract, then, in addition to the Contract performance securities furnished by the Contractor, the Collaborator(s) / Associate(s) shall furnish, within twenty eight (28) days of the Notification of Award, separate unconditional Bank Guarantee(s) towards faithful performance of the Deed(s) of Joint Undertaking for amount(s) specified in relevant Item of Bid Data Sheets and with validity till such period as specified in the corresponding format for Deed of Joint Undertaking. However, in case of delay in completion of defect liability period, the validity of Bank Guarantee(s) submitted towards faithful performance of Deed(s) of Joint Undertaking shall be extended by such period of delay.~~ ~~The Bank Guarantee(s) shall be denominated in the currency or currencies of Contract and shall be as per the proforma provided in Section-VII (Forms and Procedures) – Form of Bank Guarantee to be furnished by Associate(s) / Collaborator(s).~~
		13.5	The Bank Guarantees submitted towards Advance Payment Security, Contract Performance Security and Security in compliance to the Deed of Joint Undertaking (if applicable) shall be essentially from any of the Banks listed at Annexure-I to Section-V (Special Conditions of Contract) of the bidding documents. In case of guarantees issued by branches outside India for foreign banks, the bank guarantees shall be routed through the correspondent Bank in India for due verification of signatures of the executant and lodgement of claim.

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			The bank guarantee submitted from within India towards Advance Payment Security, Contract Performance Security and Security for Deed of Joint Undertaking (if applicable) shall be issued on a stamp paper of appropriate value as per stamp act prevailing in the State of the issuing Bank in India or the state of U.P. in India or the State from where the BG shall be operated, whichever is higher.
		13.6	Where a BG issued by a Bank outside India also needs to bear Stamp Duty of appropriate value applicable to the place in NVVN / Employer where BG is to be submitted, the BG will be adjudicated from Collector of Stamps, within 3 months of arrival of BG in India and the expenses incurred in this regard shall be borne by the Contractor.
		13.7	a) All BGs except BG issued by a Bank outside India and all Insurance Surety Bonds except those issued by an Indian Insurance company outside India , shall be received from issuing Bank/Insurance company directly through post/ courier, NVVN at below mentioned address: 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 A BG issued by a Bank outside India and Insurance Surety Bond issued by an Indian Insurance company outside India need to be submitted by the Bidder directly to the employer as defined in BDS. The BG/ Insurance Surety Bond also needs to bear stamp duty of appropriate value applicable to the place in NVVN where BG/ Insurance Surety Bond is to be submitted. The BG/ Insurance Surety Bond may be got adjudicated by the employer from Collector of Stamps, within 3 months of arrival of BG/ Insurance Surety Bond in India. Expenses incurred in this regard shall be adjusted from the payment due to the contractor. b) A soft copy of the BG/ Insurance Surety Bond is mandatorily required to be mailed to nvvncontracts@ntpc.co.in by the issuing Bank/ Insurance company. c) Confirmation of BGs through Structured Financial Messaging System (SFMS)/SWIFT While issuing the physical BGs, the Bidder's Bank shall also send electronic message through secure SFMS (in case of BGs issued from within India) or SWIFT (in case of BGs issued from outside India) to Employer's Beneficiary Bank whose details are provided herein below: (i) Bank Name: ICICI Bank Limited (ii) Branch: CONNAUGHT PLACE BRANCH (iii) Bank Address: 9A, PHELPS BUILDING, INNER CIRCLE, NEW DELHI-110001 (iv) IFSC Code: ICIC0000007 BG issuing/amending bank must send the BG advice in the form of message format via SFMS (Structured Financial Messaging System) as provided by RBI. The format of the

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			message for confirmation of the BG shall be as below: BG advising message: IFN 760COV/ IFN 767COV via SFMS Field Number: Particulars (to be mentioned in Row 1) 7037: NVVNBG8910 (unique identifier) d) All Bank Guarantees/ Insurance Surety Bond should be enforceable for minimum ninety (90 days) after expiry of its validity. e) Extension of all BGs/ Insurance Surety Bonds should be on Stamp paper of same value as that of the original BG/ Insurance Surety Bond. Minimum extension of any BG/ Insurance Surety Bond should be three months.
14.	Taxes and Duties		
		14.1	Except as otherwise specifically provided in the Contract, the Contractor shall bear and pay all taxes, duties, levies and charges assessed on the Contractor, its Sub-contractor or their employees by all municipal, state or national government authorities in connection with the Facilities in and outside of the country where the Site is located.

Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
		14.2	Notwithstanding GCC Sub-Clauses 14.1 above, the Employer shall bear and pay/reimburse to the Contractor Goods and Services Tax (GST) applicable on: (a) Plant and Equipment (including ~~Type-test Charges~~ and ~~Mandatory spares~~ to be supplied from within the Employer's country specified in Price Schedule No. 2 (and also on locally supplied Recommended Spare Parts quoted in Price Schedule No. 6, when awarded) to be incorporated in the Facilities, by the law of country where the site is located, (b) local transportation & insurance, other local costs incidental to delivery of plant & equipment including ~~mandatory spares~~ specified in Price Schedule No. 3 (and also of locally supplied Recommended Spare Parts quoted in Price Schedule No. 6, when awarded) and (c) Installation Services including Erection, Civil & Allied Works and other services specified in Price Schedule No. 4. However, all other taxes, duties & levies as may be applicable on goods and services specified in Price Schedules Nos. 2, 3 & 4 and on the materials used for civil construction works and erection & commissioning shall be to the contractor's account and no separate claim in this regard will be entertained by the Employer. Notwithstanding anything to contrary contained in the Contract, the Contractor's right to payment under the Contract is subject to issuance of valid tax invoice, payment of applicable GST to the credit of appropriate Government and submission of valid particulars of tax invoice under GST returns in accordance with GST Law. The Contractor shall issue tax invoices, file appropriate returns, and deposit the applicable GST to the account of appropriate government within the time limit prescribed under the GST Law. In the event of any default, Contractor shall be liable to pay any penalty/demand raised on the Employer due to default by Contractor, and the same shall be recovered/Contractor shall make good the loss. The Contractor shall be responsible for the issuance of e-way bill and other compliances relating to e-way bill as per GST law. The Employer will deduct GST at source at the applicable rates in case transactions under the contract are liable to GST deduction at source as per the prevailing provisions of GST Law.
		14.3	If any tax exemptions, reductions, allowances or privileges are available to the Contractor in the country where the Site is located, the Employer shall use its best endeavours to enable the Contractor to benefit from any such tax savings to the maximum allowable extent.
		14.4	For the purpose of the Contract, it is agreed that the Contract Price specified in Article 2 (Contract Price and Terms of Payment) of the Contract Agreement is based on the taxes, duties, levies and charges prevailing on seven (7) days prior to the deadline set for price bid submission in the country where the Site is located (hereinafter called "Tax" in this GCC Sub-Clause 14.4). If any rates of Tax are increased or decreased, a new Tax is introduced, an existing Tax is abolished, or any change in interpretation or application of any Tax occurs in the course of the performance of Contract, which was or will be assessed on the Contractor in connection with performance of the Contract, an equitable adjustment of the Contract Price shall be made to fully take into account any such change by addition to the Contract Price or deduction therefrom, as the case may be, in accordance with GCC Clause 36 (Change in Laws and Regulations) hereof. However, these adjustments shall not be applicable on procurement of raw materials, intermediary

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			components and intermediary services etc. by the Contractor.
		14.5	If the Employer orders any spare at a later date as per GCC Cl 7.3, all applicable additional taxes & duties, If any, not included in the original price shall be to the account of Employer.
		14.6	The Contractor will be required to submit PAN details to the Project Manager before the submission of the first bill.
D. Intellectual Property			
15.	Copyright		
		15.1	The copyright in all drawings, documents and other materials containing data and information furnished to the Employer by the Contractor herein shall remain vested in the Contractor or, if they are furnished to the Employer directly or through the Contractor by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party. The Employer shall however be free to reproduce all drawings, documents and other material furnished to the Employer for the purpose of the contract including, if required, for operation and maintenance of the facilities.
16.	Confidential Information		
		16.1	The Employer and the Contractor shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following termination of the Contract. Notwithstanding the above, the Contractor may furnish to its Subcontractor(s) such documents, data and other information it receives from the Employer to the extent required for the Subcontractor(s) to perform its work under the Contract, in which event the Contractor shall obtain from such Subcontractor(s) an undertaking of confidentiality similar to that imposed on the Contractor under this GCC Clause 16.
		16.2	The Employer shall not use such documents, data and other information received from the Contractor for any purpose other than the operation and maintenance of the Facilities. Similarly, the Contractor shall not use such documents, data and other information received from the Employer for any purpose other than the design, procurement of Plant and Equipment, construction or such other work and services as are required for the performance of the Contract.
		16.3	The obligation of a party under GCC Sub-Clauses 16.1 and 16.2 above, however, shall not apply to that information which (a) now or hereafter enters the public domain through no fault of that party (b) can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party hereto (c) otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			(d) is required to be disclosed in accordance with a judicial or governmental order or decree.
		16.4	The above provisions of this GCC Clause 16 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Facilities or any part thereof.
		16.5	The provisions of this GCC Clause 16 shall survive termination, for whatever reason, of the Contract.
			E. Work Execution
17.	Representatives		
		17.1	Project Manager If the Project Manager is not named in the Contract, then within fourteen (14) days of the Effective Date, the Employer shall appoint and notify the Contractor in writing of the name of the Project Manager. The Employer may from time to time appoint some other person as the Project Manager in place of the person previously so appointed, and shall give a notice of the name of such other person to the Contractor without delay. The Employer shall take reasonable care to see that no such appointment is made at such a time or in such a manner as to impede the progress of work on the Facilities. The Project Manager shall represent and act for the Employer at all times during the currency of the Contract. All notices, instructions, orders, certificates, approvals and all other communications under the Contract shall be given by the Project Manager, except as herein otherwise provided. All notices, instructions, information and other communications given by the Contractor to the Employer under the Contract shall be given to the Project Manager, except as herein otherwise provided.
		17.2	Contractor's Representative & Construction Manager
		17.2.1	The Contractor shall appoint the Contractor's Representative within fourteen (14) days of the Effective Date or before start of work whichever is earlier and shall request the Employer in writing to approve the person so appointed. 17.2.1.1 The Contractor's representative shall be a regular Employee/ Partner/ Director only and the Contractor shall be required to submit a Power of Attorney in original in favour of its representative. Notarized photocopy of the Power of Attorney shall be acceptable only if the Power of Attorney has been registered by the Contractor. The Employer may verify the photocopy of the Power of Attorney with the Original and the Contractor shall be required to produce the original Power of Attorney for verification, if required by the Employer. The relation of the Contractor's representative with the contractor such as Partner/ Employee etc. should be clearly brought out in the Power of Attorney. The Contractor would be required to submit a documentary proof of the relation of the Contractor's representative with the contractor in the form of self-attested copy of any of the following documents:

Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			i. Previous financial year's Form 16 as available at TRACES site of Income tax department, if the Contractor's representative is an employee of contractor or his Appointment Letter/ Salary Slip/ other documentary evidence (only in case of recent appointment or where Form 16 details are not uploaded at TRACES). Further, the Contractor shall submit the copy of Form 16 as available through TRACES site for every subsequent year also in respect of the Contractor's representative till the period of authorization. ii. Article of Association/ Registered Partnership Deed if the Contractor's representative is a partner or stake holder in Company. In case, the Contractor is not able to submit any of the documentary proofs as mentioned above at para (i) & (ii), he would be required to submit an affidavit stating the relationship between the Contractor's representative and the Contractor. 17.2.1.2 In case, the Contractor's representative is also doing some other Contract(s)/ Work(s) as nominee of the same contractor, the Contractor shall give a declaration citing list of all works where the Contractor's representative is the nominee. 17.2.1.3 If the Employer objects to the appointment giving the reason therefore, then the Contractor shall appoint a replacement within fourteen (14) days of such objection, and the foregoing provisions of this GCC Sub-Clause 17.2.1 shall apply thereto.
			17.2.2 The Contractor's Representative shall represent and act for the Contractor at all times during the currency of the Contract and shall give to the Project Manager all the Contractor's notices, instructions, information and all other communications under the Contract. All notices, instructions, information and all other communications given by the Employer or the Project Manager to the Contractor under the Contract shall be given to the Contractor's Representative or, in its absence, its deputy, except as herein otherwise provided. The Contractor shall not revoke the appointment of the Contractor's Representative without the Employer's prior written consent, which shall not be unreasonably withheld. If the Employer consents thereto, the Contractor shall appoint some other person as the Contractor's Representative, pursuant to the procedure set out in GCC Sub-Clause 17.2.1. 17.2.3 The Contractor's Representative may, subject to the approval of the Employer (which shall not be unreasonably withheld), at any time delegate to any person any of the powers, functions and authorities vested in him or her. Any such delegation may be revoked at any time. Any such delegation or revocation shall be subject to a prior notice signed by the Contractor's Representative, and shall specify the powers, functions and authorities thereby delegated or revoked. No such delegation or revocation shall take effect unless and until a copy thereof has been delivered to the Employer and the Project Manager.

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			Any act or exercise by any person of powers, functions and authorities so delegated to him or her in accordance with this GCC Sub-Clause 17.2.3 shall be deemed to be an act or exercise by the Contractor's Representative. 17.2.3.1 Notwithstanding anything stated in GCC Sub-clause 17.1 and 17.2.1 above, for the purpose of execution of contract, the Employer and the Contractor shall finalise and agree to a Contract Co-ordination Procedure and all the communication under the Contract shall be in accordance with such Contract Co-ordination Procedure. 17.2.4 From the commencement of installation of the Facilities at the Site until Operational Acceptance, the Contractor's Representative shall appoint a suitable person as the construction manager (hereinafter referred to as "the Construction Manager"). The Construction Manager shall supervise all work done at the Site by the Contractor and shall be present at the Site throughout normal working hours except when on leave, sick or absent for reasons connected with the proper performance of the Contract. Whenever the Construction Manager is absent from the Site, a suitable person shall be appointed to act as his or her deputy. 17.2.5 The Employer may by notice to the Contractor object to any representative or person employed by the Contractor in the execution of the Contract who, in the reasonable opinion of the Employer, may behave inappropriately, may be incompetent or negligent, or may commit a serious breach of the Site regulations provided under GCC Sub-Clause 22.3. The Employer shall provide evidence of the same, whereupon the Contractor shall remove such person from the Facilities. 17.2.6 If any representative or person employed by the Contractor is removed in accordance with GCC Sub-Clause 17.2.5, the Contractor shall, where required, promptly appoint a replacement. 17.2.7 In case any of the information/ declaration/ undertaking provided by Contractor/Contractor's representative is found to be false and/ or the Contractor/ Contractor's representative suppresses any relevant information at any stage, the Contractor will be liable for actions in terms of Employer's Debarment policy.
18.	Work Program		
		18.1	Contractor's Organization The Contractor shall supply to the Employer and the Project Manager a chart showing the proposed organization to be established by the Contractor for carrying out work on the Facilities. The chart shall include the identities of the key personnel together with the curricula vitae of such key personnel to be employed within twenty-one (21) days of the Effective Date. The Contractor shall promptly inform the Employer and the Project Manager in writing of any revision or alteration of such an organization chart.
		18.2	Program of Performance

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			Within twenty-eight (28) days after the date of notification of award of Contract, the Contractor shall prepare and submit to the Project Manager a detailed program of performance of the Contract, made in the form of PERT Network and showing the sequence in which it proposes to design, manufacture, transport, assemble, install and pre-commission the Facilities, as well as the date by which the Contractor reasonably requires that the Employer shall have fulfilled its obligations under the Contract so as to enable the Contractor to execute the Contract in accordance with the program and to achieve Completion and Acceptance of the Facilities in accordance with the Contract. The program so submitted by the Contractor shall accord with the Time Schedule included in Appendix 4 (Time Schedule) to the Contract Agreement and any other dates and periods specified in the Contract. The Contractor shall update and revise the program as and when appropriate or when required by the Project Manager, but without modification in the Times for Completion given in the SCC and any extension granted in accordance with GCC Clause 40, and shall submit all such revisions to the Project Manager.
		18.3	Progress Report The Contractor shall monitor progress of all the activities specified in the program referred to in GCC Sub-Clause 18.2 (Program of Performance) above, and supply a progress report to the Project Manager every month. The progress report shall be in a form acceptable to the Project Manager and shall also indicate: (a) percentage completion achieved compared with the planned percentage completion for each activity; and (b) where any activity is behind the program, giving comments and likely consequences and stating the corrective action being taken.
		18.4	Progress of Performance If at any time the Contractor's actual progress falls behind the program referred to in GCC Sub-Clause 18.2 (Program of Performance), or it becomes apparent that it will so fall behind, the Contractor shall, at the request of the Employer or the Project Manager, prepare and submit to the Project Manager a revised program, taking into account the prevailing circumstances, and shall notify the Project Manager of the steps being taken to expedite progress so as to attain Completion of the Facilities within the Time for Completion under GCC Sub-Clause 8.2 (Time for Commencement and Completion), any extension thereof entitled under GCC Sub-Clause 40.1 (Extension of Time for Completion), or any extended period as may otherwise be agreed upon between the Employer and the Contractor.
		18.5	Work Procedures The Contract shall be executed in accordance with the Contract Documents and the procedures given in the section on Forms and Procedures of the Contract Documents. If agreed between the Employer and the Contractor, the Contractor may execute the Contract in accordance with its own standard project execution plans and procedures to the extent that they do not conflict with the provisions contained in the Contract.

Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
		18.6	Maintenance of Records of Weekly Progress Review Meetings at site The Contractor shall be required to attend all weekly site progress review meetings organized by the 'Project Manager' or his authorized representative. The deliberations in the meetings shall inter alia include the weekly program, progress of work (including details of manpower, tools and plants deployed by the contractor vis-a-vis agreed schedule), inputs to be provided by Employer, delays, if any, and recovery program, specific hindrances to work and work instructions by Employer. Record of Hindrances / events that lead to slow/ stoppage of smooth execution of work shall be maintained in "Hindrance Register". The minutes of the weekly meetings shall be recorded in triplicate in a numbered register available with the 'Project Manager', or his authorized representative. These recordings shall be jointly signed by the Project Manager or his authorized representative and the Contractor and one copy of the signed records shall be handed over to the Contractor.
19.	Subcontracting		
		19.1	Appendix 5 (List of Approved Subcontractors) to the Contract Agreement specifies major items of supply or services and a list of approved Subcontractors against each item, including vendors. Insofar as no Subcontractors are listed against any such item, the Contractor shall prepare a list of Subcontractors for such item for inclusion in such list. The Contractor may from time to time propose any addition to or deletion from any such list. The Contractor shall submit any such list or any modification thereto to the Employer for its approval in sufficient time so as not to impede the progress of work on the Facilities. Such approval by the Employer for any of the Subcontractors shall not relieve the Contractor from any of its obligations, duties or responsibilities under the Contract.
		19.2	The Contractor shall select and employ its Subcontractors for such major items from those listed in the lists referred to in GCC Sub-Clause 19.1.
		19.3	For items or parts of the Facilities not specified in Appendix 5 (List of Approved Subcontractors) to the Contract Agreement, the Contractor may employ such Subcontractors as it may select, at its discretion.
		19.4	The Contractor shall not be allowed to sub-contract works to any subcontractor/ sub-vendor from a country which shares a land border with India unless such sub-contractor is registered with the competent Authority. The Competent Authority for the purpose of registration shall be as mentioned in the relevant Annexure of SCC. However, the said requirement of registration will not apply to subcontractors 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. The Contractor may apprise itself of the updated lists of such countries available in the website of the Ministry of External Affairs. Procurement of raw material, components, etc. does not constitute

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			subcontracting.
20.	Design And Engineering		
		20.1	Specifications and Drawings 20.1.1 The Contractor shall execute the basic and detailed design and the engineering work in compliance with the provisions of the Contract, or where not so specified, in accordance with good engineering practice. The Contractor shall be responsible for any discrepancies, errors or omissions in the specifications, drawings and other technical documents that it has prepared, whether such specifications, drawings and other documents have been approved by the Project Manager or not, provided that such discrepancies, errors or omissions are not because of inaccurate information furnished in writing to the Contractor by or on behalf of the Employer. 20.1.2 The Contractor shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designated by or on behalf of the Employer, by giving a notice of such disclaimer to the Project Manager.
		20.2	Codes and Standards Wherever references are made in the Contract to codes and standards in accordance with which the Contract shall be executed, the edition or the revised version of such codes and standards current at the date fifteen (15) days prior to deadline set for price bid submission shall apply unless otherwise specified. During Contract execution, any changes in such codes and standards shall be applied after approval by the Employer and shall be treated in accordance with GCC Clause 39 (Changes Originating from Contractor).
		20.3	Approval/Review of Technical Documents by Project Manager 20.3.1 The Contractor shall prepare (or cause its Subcontractors to prepare) and furnish to the Project Manager the documents listed in Appendix 7 (List of Documents for Approval or Review) to the Contract Agreement for its approval or review as specified and as in accordance with the requirements of GCC Sub-Clause 18.2 (Program of Performance). Any part of the Facilities covered by or related to the documents to be approved by the Project Manager shall be executed only after the Project Manager's approval thereof. GCC Sub-Clauses 20.3.2 through 20.3.7 shall apply to those documents requiring the Project Manager's approval, but not to those furnished to the Project Manager for its review only. 20.3.2 Within twenty one (21) days after receipt by the Project Manager of any document requiring the Project Manager's approval in accordance with GCC Sub-Clause 20.3.1, the

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			Project Manager shall either return one copy thereof to the Contractor with its approval endorsed thereon or shall notify the Contractor in writing of its disapproval thereof and the reasons therefor and the modifications that the Project Manager proposes. 20.3.3 The Project Manager shall not disapprove any document, except on the grounds that the document does not comply with some specified provision of the Contract or that it is contrary to good engineering practice. 20.3.4 If the Project Manager disapproves the document, the Contractor shall modify the document and resubmit it for the Project Manager's approval in accordance with GCC Sub-Clause 20.3.2. If the Project Manager approves the document subject to modification(s), the Contractor shall make the required modification(s), and upon resubmission with the required modifications the document shall be deemed to have been approved. The procedure for submission of the documents by the Contractor and their approval by the Project Manager shall be discussed and finalised with the Contractor. 20.3.5 If any dispute or difference occurs between the Employer and the Contractor in connection with or arising out of the disapproval by the Project Manager of any document and/or any modification(s) thereto that cannot be settled between the parties within a reasonable period, then such dispute or difference may be referred to Expert Settlement Council (ESC) for determination in accordance with GCC Sub-Clause 6.4.1 hereof. If such dispute or difference is referred to ESC, the Project Manager shall give instructions as to whether and if so, how, performance of the Contract is to proceed. The Contractor shall proceed with the Contract in accordance with the Project Manager's instructions, provided that if the ESC upholds the Contractor's view on the dispute and if the Employer has not given notice under GCC Sub-Clause 6.5.1 hereof, then the Contractor shall be reimbursed by the Employer for any additional costs incurred by reason of such instructions and shall be relieved of such responsibility or liability in connection with the dispute and the execution of the instructions as the ESC shall decide, and the Time for Completion shall be extended accordingly. 20.3.6 The Project Manager's approval, with or without modification of the document furnished by the Contractor, shall not relieve the Contractor of any responsibility or liability imposed upon it by any provisions of the Contract except to the extent that any subsequent failure results from modifications required by the Project Manager. 20.3.7 The Contractor shall not depart from any approved document unless the Contractor has first submitted to the Project Manager an amended document and obtained the Project Manager's approval thereof, pursuant to the provisions of this GCC Sub-Clause 20.3. If the Project Manager requests any change in any already

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			approved document and/or in any document based thereon, the provisions of GCC Clause 39 (Change in the Facilities) shall apply to such request.
21.	Procurement		
		21.1	Plant and Equipment Subject to GCC Sub-Clause 14.2, the Contractor shall manufacture or procure and transport all the Plant and Equipment in an expeditious and orderly manner to the Site.
		21.2	~~Employer Supplied Plant, Equipment, and Materials~~ ~~If Appendix 6 (Scope of Works and Supply by the Employer) to the Contract Agreement provides that the Employer shall furnish any specific items of machinery, equipment or materials to the Contractor, the following provisions shall apply:~~ ~~21.2.1 The Employer shall, at its own risk and expense, transport each item to the place on or near the Site as agreed upon by the parties and make such item available to the Contractor at the time specified in the program furnished by the Contractor, pursuant to GCC Sub-Clause 18.2 (Program of Performance), unless otherwise mutually agreed.~~ ~~21.2.2 Upon receipt of such item, the Contractor shall inspect the same visually and notify the Project Manager of any detected shortage, defect or default. The Employer shall immediately remedy any shortage, defect or default, or the Contractor shall, if practicable and possible, at the request of the Employer, remedy such shortage, defect or default at the Employer's cost and expense. After inspection, such item shall fall under the care, custody and control of the Contractor. The provision of this GCC Sub-Clause 21.2.2 shall apply to any item supplied to remedy any such shortage or defect or to substitute for any defective item, or shall apply to defective items that have been repaired.~~ ~~21.2.3 The foregoing responsibilities of the Contractor and its obligations of care, custody and control shall not relieve the Employer of liability for any undetected shortage, defect or default, nor place the Contractor under any liability for any such shortage, defect or default whether under GCC Clause 27 (Defect Liability) or under any other provision of Contract.~~
		21.3	Transportation 21.3.1 The Contractor shall at its own risk and expense transport all the Plant and Equipment and the Contractor's Equipment to the Site by the mode of transport that the Contractor judges most suitable under all the circumstances. Packing Material The Contractor shall ensure that all the plant and equipment are suitably packed and protected to prevent damage or deterioration during its transportation to site, handling and

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			storage at site till the time of its installation. ~~The ownership of all such packing material (except empty shipper's containers on which the customs duty has been paid by the Contractor pursuant to GCC Clause 14.2) shall stand transferred to the Employer upon dispatch of the plant and equipment and endorsement of dispatch documents in favour of the Employer.~~ 21.3.2 Unless otherwise provided in the Contract, the Contractor shall be entitled to select any safe mode of transport operated by any person to carry the Plant and Equipment and the Contractor's Equipment. In case, the Contractor decides to transport the Plant and Equipment and the Contractor's Equipment by road, then such Plant and Equipment and the Contractor's Equipment must necessarily be transported through a registered common carrier as per Carriage by Road Rules 2011 of Central Government of India. 21.3.3 Upon despatch of each shipment of the Plant and Equipment and the Contractor's Equipment, the Contractor shall notify the Employer of the description of the Plant and Equipment and of the Contractor's Equipment, the point and means of dispatch, and the estimated time and point of arrival in the country where the Site is located, if applicable, and at the Site. The Contractor shall furnish the Employer with relevant shipping documents to be agreed upon between the parties. 21.3.4 The Contractor shall be responsible for obtaining, if necessary, approvals from the authorities for transportation of the Plant and Equipment and the Contractor's Equipment to the Site. The Employer shall use its best endeavours in a timely and expeditious manner to assist the Contractor in obtaining such approvals, if requested by the Contractor. The Contractor shall indemnify and hold harmless the Employer from and against any claim for damage to roads, bridges or any other traffic facilities that may be caused by the transport of the Plant and Equipment and the Contractor's Equipment to the Site.
22.	Installation		
		22.1	Setting Out/Supervision/Labour 22.1.1 Bench Mark: The Contractor shall be responsible for the true and proper setting-out of the Facilities in relation to bench marks, reference marks and lines provided to it in writing by or on behalf of the Employer. If, at any time during the progress of installation of the Facilities, any error shall appear in the position, level or alignment of the Facilities, the Contractor shall forthwith notify the Project Manager of such error and, at its own expense, immediately rectify such error to the reasonable satisfaction of the Project Manager. If such error is based on incorrect data provided in writing by or on behalf of the Employer, the expense of rectifying the same shall be borne by the Employer. 22.1.2 Contractor's Supervision: The Contractor shall give or provide

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			all necessary superintendence during the installation of the Facilities, and the Construction Manager or its deputy shall be constantly on the Site to provide full-time superintendence of the installation. The Contractor shall provide and employ only technical personnel who are skilled and experienced in their respective callings and supervisory staff who are competent to adequately supervise the work at hand. 22.1.3 Labour: (a) The Contractor shall provide and employ on the Site in the installation of the Facilities such skilled, semi-skilled and unskilled labour as is necessary for the proper and timely execution of the Contract. The Contractor shall preferably engage skilled/ semiskilled/ unskilled workers. ~~from amongst the land oustees of the Project.~~ (b) Unless otherwise provided in the Contract, the Contractor shall be responsible for the recruitment, transportation, accommodation and catering of all labour, local or expatriate, required for the execution of the Contract and for all payments in connection therewith. (c) The Contractor shall be responsible for obtaining all necessary permit(s) and/or visa(s) from the appropriate authorities for the entry of all labour and personnel to be employed on the Site into the country where the Site is located. (d) The Contractor shall at its own expense provide the means of repatriation to all of its and its Subcontractor's personnel employed on the Contract at the Site to their various home countries. It shall also provide suitable temporary maintenance of all such persons from the cessation of their employment on the Contract to the date programmed for their departure. In the event that the Contractor defaults in providing such means of transportation and temporary maintenance, the Employer may provide the same to such personnel and recover the cost of doing so from the Contractor. (e) The Contractor shall at all times during the progress of the Contract use its best endeavour to prevent any unlawful, riotous or disorderly conduct or behaviour by or amongst its employees and the labour of its Subcontractors. (f) The Contractor shall, in all dealings with its labour and the labour of its Subcontractors currently employed on or connected with the Contract, pay due regard to all recognized festivals, official holidays, religious or other customs and all local laws and regulations pertaining to the employment of labour.
		22.2	Contractor's Equipment 22.2.1 All Contractors' Equipment brought by the Contractor onto the Site shall be deemed to be intended to be used exclusively for

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			the execution of the Contract. The Contractor shall not remove the same from the Site without the Project Manager's consent that such Contractor's Equipment is no longer required for the execution of the Contract. 22.2.2 Unless otherwise specified in the Contract, upon completion of the Facilities, the Contractor shall remove from the Site all Equipment brought by the Contractor onto the Site and any surplus materials remaining thereon. 22.2.3 The Employer will, if requested, use its best endeavour to assist the Contractor in obtaining any local, state or national government permission required by the Contractor for the export of the Contractor's Equipment imported by the Contractor for use in the execution of the Contract that is no longer required for the execution of the Contract.
		22.3	Site Regulations and Safety 22.3.1 The Employer and the Contractor shall establish Site regulations setting out the rules to be observed in the execution of the Contract at the Site and shall comply therewith. The Contractor shall prepare and submit to the Employer, with a copy to the Project Manager, proposed Site regulations for the Employer's approval, which approval shall not be unreasonably withheld. Such Site regulations shall include, but shall not be limited to, rules in respect of security, safety of the Facilities in line with para 22.3.2, gate control, sanitation, medical care, and fire prevention. 22.3.2 The Employer has formulated Safety Rules for Construction & Erection of Power Plants is displayed at https://nvvn.co.in/assets/files/NTPC_SAFETY_RULES.pdf and or https://ntpctender.ntpc.co.in/Heading/NTPC_Safety_Rules.pdf These Safety Rules lay down the safety requirements for safe execution of project activities, responsibilities of the Contractor, and all concerned involved in Construction and Erection. The Contractor, including his sub-contractors, while executing the Works, shall strictly comply with these Safety rules and statutory requirements (including amendments thereof), as applicable, in respect of safety of personnel, equipment and materials at site area under execution of the Contractor. In addition to above, b. Safety clauses relevant to rooftop solar projects as per latest CEA guidelines are applicable. 22.3.3 In addition to other clauses specified in 'NTPC Safety Rules for Construction and Erection of Power Plants' [as enclosed with GCC], Contractor shall adhere to the following provisions for payment linked to Safety Compliances as specified in Payment Terms: i) Safety Personnel

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			Contractor shall adhere to the requirements of Clause 2.3 (requirement of Safety personnel) of 'NTPC Safety Rules for Construction and Erection of Power Plants'. ii) Personal Protective Equipment & Safety Equipment Contractor shall adhere to the requirements of Clause 4 (Personal Protective Equipment) of 'NTPC Safety Rules for Construction and Erection of Power Plants' and the provisions of the Bidding Documents with regards to number of Safety Equipment/PPEs to be provided by the Contractor. In case Contractor fails to comply with aforesaid requirement, Project Manager /Safety Officer shall issue a warning letter/Non-compliance Memo to the Contractor regarding the same advising him to take corrective action. Project Manager /NTPC Safety Officer shall maintain written record of all such incidents when Warning letter/Non-compliance Memo is issued to the Contractor for not meeting the requirements of Clause 4.0 (Personal Protective Equipment) and the provisions of the Bidding Documents. iii) Safety Induction and Training Contractor shall adhere to the requirements of imparting Safety training as per Clause 8.0 (Safety Induction and Training) of 'NTPC Safety Rules for Construction and Erection of Power Plants. Contractor shall maintain written record of Safety trainings imparted to its Employees/ workmen for purpose of aforesaid payment. These records shall be available for review of Project Manager /NTPC Safety Officer all the time. iv) Medical and First Aid Amenities Contractor shall adhere to the requirements of Clause 13 (Medical and First Aid Amenities) of 'NTPC Safety Rules for Construction and Erection of Power Plants. NTPC Safety Officer/ Project Manager shall maintain written record of incidences when requisite Medical and first aid amenities as per Clause 13 of Safety Rules were not available for purpose of aforesaid payment. v) Compliance to Work Permit System Contractor shall adhere to the requirements of Clause 17 (Work Permit System) of 'NTPC Safety Rules for Construction and Erection of Power Plants'. In case Contractor fails to obtain work permit or fails to comply to any requirements of aforesaid Work permit system, he will be issued a warning letter/Non-compliance Memo by Project Manager /Safety Officer of NTPC

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			regarding the same advising him to take corrective action. NTPC Safety Officer / Project Manager shall maintain written record of all such incidents when Warning letter / Non-compliance Memo is issued to Contractor for not complying with the requirements of Work Permit System as per Clause 17 of Safety Rules for purpose of aforesaid payment.
		22.4	Opportunities for Other Contractors 22.4.1 The Contractor shall, upon written request from the Employer or the Project Manager, give all reasonable opportunities for carrying out the work to any other contractors employed by the Employer on or near the Site. 22.4.2 If the Contractor, upon written request from the Employer or the Project Manager, makes available to other contractors any roads or ways the maintenance for which the Contractor is responsible, permits the use by such other contractors of the Contractor's Equipment, or provides any other service of whatsoever nature for such other contractors, the Employer shall fully compensate the Contractor for any loss or damage caused or occasioned by such other contractors in respect of any such use or service, and shall pay to the Contractor reasonable remuneration for the use of such equipment or the provision of such services. 22.4.3 The Contractor shall also so arrange to perform its work as to minimize, to the extent possible, interference with the work of other contractors. The Project Manager shall determine the resolution of any difference or conflict that may arise between the Contractor and other contractors and the workers of the Employer in regard to their work. 22.4.4 The Contractor shall notify the Project Manager promptly of any defects in the other Contractors' work that come to its notice, and that could affect the Contractor's work. The Project Manager shall determine the corrective measures, if any, required to rectify the situation after inspection of the Facilities. Decisions made by the Project Manager shall be binding on the Contractor.
		22.5	Emergency Work If, by reason of an emergency arising in connection with and during the execution of the Contract, any protective or remedial work is necessary as a matter of urgency to prevent damage to the Facilities, the Contractor shall immediately carry out such work. If the Contractor is unable or unwilling to do such work immediately, the Employer may do or cause such work to be done as the Employer may determine is necessary in order to prevent damage to the Facilities. In such event the Employer shall, as soon as practicable after the occurrence of any such emergency, notify the Contractor in writing of such emergency, the work done and the reasons therefor. If the work done or caused to be done by the Employer is work that the Contractor was liable to do at its own expense under the Contract, the reasonable

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			costs incurred by the Employer in connection therewith shall be paid by the Contractor to the Employer. Otherwise, the cost of such remedial work shall be borne by the Employer.
		22.6	Site Clearance 22.6.1 Site Clearance in Course of Performance: In the course of carrying out the Contract, the Contractor shall keep the Site reasonably free from all unnecessary obstruction, store or remove any surplus materials, clear away any wreckage, rubbish or temporary works from the Site, and remove any Contractor's Equipment no longer required for execution of the Contract. 22.6.2 Clearance of Site after Completion: After Completion of all parts of the Facilities, the Contractor shall clear away and remove all wreckage, rubbish and debris of any kind from the Site, and shall leave the Site and Facilities clean and safe. 22.6.3 Disposal of Scrap The Contractor shall with the agreement of the Employer promptly remove from the site any 'Scrap' generated during performance of any activities at site in pursuance of the Contract. The term 'Scrap' shall refer to scrap/ waste/ remnants arising out of the fabrication of structural steel work and piping work at the project site in the course of execution of the contract and shall also include any wastage of cables during the termination process while installing the cables. The ownership of such Scrap shall vest with the Contractor except in cases where the items have been issued by the Employer from its stores for their installation only without any adjustment to the Contract Price. The removal of scrap shall be subject to the Contractor producing the necessary clearance from the relevant authorities (Custom, GST etc.), if required by the law, in respect of disposal of the scrap. The liability for the payment of the applicable taxes/duties shall be that of the Contractor. The Contractor shall also indemnify to keep the Employer harmless from any act of omission or negligence on the part of the Contractor in following the statutory requirements with regard to removal/disposal of scrap. The Indemnity-cum-Undertaking Agreement shall be furnished by Contractor as per proforma enclosed in Section-VII (Forms and Procedure). Further, in case the laws require the Employer to take prior permission of the relevant Authorities before handing over the scrap to the Contractor, the same shall be obtained by the Contractor on behalf of the Employer.
		22.7	Watching and Lighting The Contractor shall provide and maintain at its own expense all lighting, fencing, and watching when and where necessary for the proper execution and the protection of the Facilities, or for the safety of the owners and occupiers of adjacent property and for the safety of the public.

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		22.8	Shift Work
		22.8.1	To achieve the required rate of progress in order to complete the Facilities within the Time for Completion, the Contractor may carry on the work, round the clock, in multiple shifts per day, as may be necessary. The Contractor shall however be responsible to comply with all applicable laws in this regard.
		22.8.2	No additional payment will be made on account of round the clock working in multiple shifts.
		22.8.3	Wherever the work is carried out at night adequate lighting of working areas and access routes for pedestrians or vehicles shall be provided by the Contractor at his cost. Sufficient notice should be given by the Contractor to the Employer regarding the details of works in shifts so that necessary supervision could be provided.
23.	Test And Inspection		
		23.1	The Contractor shall at its own expense carry out at the place of manufacture and/or on the Site all such tests and/or inspections of the Plant and Equipment and any part of the Facilities as are specified in the Contract.
		23.2	The Employer and the Project Manager or their designated representatives shall be entitled to attend the aforesaid test and/or inspection, provided that the Employer shall bear all costs and expenses incurred in connection with such attendance including, but not limited to, all travelling and board and lodging expenses.
		23.3	Whenever the Contractor is ready to carry out any such test and/or inspection, the Contractor shall give a reasonable advance notice of such test and/or inspection and of the place and time thereof to the Project Manager. The Contractor shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Employer and the Project Manager (or their designated representatives) to attend the test and/or inspection.
		23.4	The Contractor shall provide the Project Manager with a certified report of the results of any such test and/or inspection. If the Employer or Project Manager (or their designated representatives) fails to attend the test and/or inspection, or if it is agreed between the parties that such persons shall not do so, then the Contractor may proceed with the test and/or inspection in the absence of such persons, and may provide the Project Manager with a certified report of the results thereof.
		23.5	The Project Manager may require the Contractor to carry out any test and/or inspection not required by the Contract, where the purpose of these tests/ inspection is to verify compliance with the Technical Specifications and are feasible without creating a risk of damage to the Works, provided that the Contractor's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impedes the progress of work on the Facilities and/or the Contractor's performance of its other obligations under the Contract, due allowance will be made in

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			respect of the Time for Completion and the other obligations so affected.
		23.6	If any Plant and Equipment or any part of the Facilities fails to pass any test and/or inspection, the Contractor shall either rectify or replace such Plant and Equipment or part of the Facilities and shall repeat the test and/or inspection upon giving a notice under GCC Sub-Clause 23.3.
		23.7	If any dispute or difference of opinion shall arise between the parties in connection with or arising out of the test and/or inspection of the Plant and Equipment or part of the Facilities that cannot be settled between the parties within a reasonable period of time, it may be referred to the Expert Settlement Council (ESC) for determination in accordance with GCC Sub-Clause 6.4.1.
		23.8	The Contractor shall afford the Employer and the Project Manager, at the Employer's expense, access at any reasonable time to any place where the Plant and Equipment are being manufactured or the Facilities are being installed, in order to inspect the progress and the manner of manufacture or installation, provided that the Project Manager shall give the Contractor a reasonable prior notice.
		23.9	The Contractor agrees that neither the execution of a test and/or inspection of Plant and Equipment or any part of the Facilities, nor the attendance by the Employer or the Project Manager, nor the issue of any test certificate pursuant to GCC Sub-Clause 23.4, shall release the Contractor from any other responsibilities under the Contract.
		23.10	No part of the Facilities or foundations shall be covered up on the Site without the Contractor carrying out any test and/or inspection required under the Contract. The Contractor shall give a reasonable notice to the Project Manager whenever any such part of the Facilities or foundations are ready or about to be ready for test and/or inspection; such test and/or inspection and notice thereof shall be subject to the requirements of the Contract.
		23.11	The Contractor shall uncover any part of the Facilities or foundations, or shall make openings in or through the same as the Project Manager may from time to time require at the Site, and shall reinstate and make good such part or parts. If any part of the Facilities or foundations have been covered up at the Site after compliance with the requirement of GCC Sub-Clause 23.10 and are found to be executed in accordance with the Contract, the expenses of uncovering, making openings in or through, reinstating, and making good the same shall be borne by the Employer, and the Time for Completion shall be reasonably adjusted to the extent that the Contractor has thereby been delayed or impeded in the performance of any of its obligations under the Contract.
24.	Completion of the Facilities		
		24.1	As soon as installation of the Facilities or any part thereof has, in the opinion of the Contractor, been completed as specified in the Technical Specifications, excluding minor items not materially affecting the operation or safety of the Facilities, the Contractor shall so notify the Employer in writing.

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		24.2	Within seven (7) days after receipt of the notice from the Contractor under GCC Sub-Clause 24.1, the Employer shall supply the operating and maintenance personnel and the raw materials, utilities, lubricants, chemicals, catalysts, facilities, services as specified in Appendix 6 (Scope of Works and Supply by the Employer) to the Contract Agreement, required for Pre-commissioning of the Facilities or any part thereof.
		24.3	As soon as reasonably practicable after the operating and maintenance personnel have been supplied by the Employer and the raw materials, utilities, lubricants, chemicals, catalysts, facilities, services and other matters, if so specified in Appendix 6 (Scope of Works and Supply by the Employer)/ Technical Specifications, have been provided by the Employer in accordance with GCC Sub-Clause 24.2, the Contractor shall commence Pre-commissioning of the Facilities or the relevant part thereof in preparation for Commissioning.
		24.4	As soon as all works in respect of Pre-commissioning are completed and, in the opinion of the Contractor, the Facilities or any part thereof is ready for Commissioning, the Contractor shall commence Commissioning as per procedures stipulated in Technical Specifications, and as soon as Commissioning is satisfactorily completed, the Contractor shall so notify the Project Manager in writing.
		24.5	The Project Manager shall, within fourteen (14) days after receipt of the Contractor's notice under GCC Sub-Clause 24.4, either issue a Completion Certificate in the form specified in the Forms and Procedures section in the bidding documents, stating that the Facilities or that part thereof have reached Completion as at the date of the Contractor's notice under GCC Sub-Clause 24.4, or notify the Contractor in writing of any defects and/or deficiencies. If the Project Manager notifies the Contractor of any defects and/or deficiencies, the Contractor shall then correct such defects and/or deficiencies, and shall repeat the procedure described in GCC Sub-Clause 24.4. If the Project Manager is satisfied that the Facilities or that part thereof have reached Completion, the Project Manager shall, within seven (7) days after receipt of the Contractor's repeated notice, issue a Completion Certificate stating that the Facilities or that part thereof have reached Completion as at the date of the Contractor's repeated notice. If the Project Manager is not so satisfied, then it shall notify the Contractor in writing of any defects and/or deficiencies within seven (7) days after receipt of the Contractor's repeated notice, and the above procedure shall be repeated.
		24.6	If the Project Manager fails to issue the Completion Certificate and fails to inform the Contractor of any defects and/or deficiencies within fourteen (14) days after receipt of the Contractor's notice under GCC Sub-Clause 24.4 or within seven (7) days after receipt of the Contractor's repeated notice under GCC Sub-Clause 24.5, or if the Employer makes use of the Facilities or part thereof, then the Facilities or that part thereof shall be deemed to have reached Completion as of the date of the Contractor's notice or repeated notice, or as of the Employer's use of the Facilities, as the case may be.

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		24.7	As soon as possible after Completion, the Contractor shall complete all outstanding minor items so that the Facilities are fully in accordance with the requirements of the Contract, failing which the Employer will undertake such completion and deduct the costs thereof from any monies owing to the Contractor.
		24.8	Upon Completion, the Employer shall be responsible for the care and custody of the Facilities or the relevant part thereof, together with the risk of loss or damage thereto, and shall thereafter take over the Facilities or the relevant part thereof.
25.	Commissioning, Guarantee Tests and Operational Acceptance		
		25.1	Commissioning 25.1.1 Commissioning of the Facilities or any part thereof shall be completed by the Contractor as per procedures detailed in the Technical Specifications. The Employer shall, unless otherwise specified in Appendix 6 (Scope of Works and Supply by the Employer)/ Technical Specifications, supply the operating and maintenance personnel and all raw materials, utilities, lubricants, chemicals, catalysts, facilities, services and other matters required for Commissioning of the Facilities.
		25.2	Guarantee Test 25.2.1 The Guarantee Test (and repeats thereof) shall be conducted by the Contractor as specified in the Technical Specifications or the relevant part thereof to ascertain whether the Facilities or the relevant part can attain the Functional Guarantees specified in the Contract Documents. The Contractor's and Project Manager's advisory personnel shall attend the Guarantee Test. The Employer shall promptly provide the Contractor with such information as the Contractor may reasonably require in relation to the conduct and results of the Guarantee Test (and any repeats thereof). 25.2.2 If for reasons attributable to the Employer, the Guarantee Test of the Facilities or the relevant part thereof cannot be successfully completed within the timelines specified in the Technical Specifications, payment of Contractor shall be released as specified in Appendix-I (Payment terms). 25.2.3 If for reasons attributable to the Employer, the Guarantee Test of the Facilities or the relevant part thereof cannot be successfully completed within the period of twelve months from the timelines specified in the Technical Specifications, balance payment towards Guarantee Test, shall be released to the Contractor against Bank Guarantee as per Appendix-I (Payment terms). Such Bank Guarantee shall have initial validity of one (1) year. The Bank Guarantee shall be extended for any subsequent period, if required, such that the same remains valid till the Successful Completion of Guarantee Test.

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		25.3	Operational Acceptance 25.3.1 Subject to GCC Sub-Clause 25.4 (Partial Acceptance) below, Operational Acceptance shall occur in respect of the Facilities or any part thereof when any minor items mentioned in GCC Sub-Clause 24.7 hereof relevant to the Facilities or that part thereof have been completed and (a) the Guarantee Test has been successfully completed and the Functional Guarantees are met; or (b) the Contractor has paid the liquidated damages specified in GCC Sub-Clause 28.3 hereof; and 25.3.2 At any time after any of the events set out in GCC Sub-Clause 25.3.1 have occurred, the Contractor may give a notice to the Project Manager requesting the issue of an Operational Acceptance Certificate in the form provided in the Bidding Documents or in another form acceptable to the Employer in respect of the Facilities or the part thereof specified in such notice as at the date of such notice. 25.3.3 The Project Manager shall, after consultation with the Employer, and within forty five (45) days after receipt of the Contractor's notice, issue an Operational Acceptance Certificate. 25.3.4 If within forty five (45) days after receipt of the Contractor's notice, the Project Manager fails to issue the Operational Acceptance Certificate or fails to inform the Contractor in writing of the justifiable reasons why the Project Manager has not issued the Operational Acceptance Certificate, the Facilities or the relevant part thereof shall be deemed to have been accepted as at the date of the Contractor's said notice.
		25.4	Partial Acceptance
			25.4.1 If the Contract specifies that Completion and Commissioning shall be carried out in respect of parts of the Facilities, the provisions relating to Completion and Commissioning including the Guarantee Test shall apply to each such part of the Facilities individually, and the Operational Acceptance Certificate shall be issued accordingly for each such part of the Facilities. 25.4.2 If a part of the Facilities comprises facilities such as buildings, for which no Commissioning or Guarantee Test is required, then the Project Manager shall issue the Operational Acceptance Certificate for such facility when it attains Completion, provided that the Contractor shall thereafter complete any outstanding minor items that are listed in the Operational Acceptance Certificate.
			F. Guarantees and Liabilities
26.	Completion Time Guarantee		

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		26.1	The Contractor guarantees that it shall attain Completion of the Facilities (or a part for which a separate time for completion is specified in the SCC) within the Time for Completion specified in the SCC pursuant to GCC Sub-Clause 8.2, or within such extended time to which the Contractor shall be entitled under GCC Clause 40 (Extension of Time for Completion) hereof.
		26.2	If the Contractor fails to attain Completion of the Facilities or any part thereof within the Time for Completion or any extension thereof under GCC Clause 40 (Extension of Time for Completion), the Contractor shall pay to the Employer liquidated damages in the amount computed at the rates specified in the SCC. The aggregate amount of such liquidated damages shall in no event exceed the amount specified as "Maximum" in the SCC. Once the "Maximum" is reached, the Employer may consider termination of the Contract, pursuant to GCC Sub-Clause 42.2.2. Such payment shall completely satisfy the Contractor's obligation to attain Completion of the Facilities or the relevant part thereof within the Time for Completion or any extension thereof under GCC Clause 40 (Extension of Time for Completion). The Contractor shall have no further liability whatsoever to the Employer in respect thereof. However, the payment of liquidated damages shall not in any way relieve the Contractor from any of its obligations to complete the Facilities or from any other obligations and liabilities of the Contractor under the Contract. Save for liquidated damages payable under this GCC Sub-Clause 26.2, the failure by the Contractor to attain any milestone or other act, matter or thing by any date specified in Appendix 4 (Time Schedule) to the Contract Agreement and/or other program of work prepared pursuant to GCC Clause 18 (Program of Performance) shall not render the Contractor liable for any loss or damage thereby suffered by the Employer.
		26.3	No bonus shall be given for earlier completion of the facilities or part thereof.
27.	Defect Liability		
		27.1	The Contractor warrants that the Facilities or any part thereof shall be free from defects in the design, engineering, materials and workmanship of the Plant and Equipment supplied and of the work executed.
		27.2	The Defect Liability Period shall be eighteen (18) months from the date of Completion of the Facilities (or any part thereof) or twelve (12) months from the date of Operational Acceptance of the Facilities (or any part thereof), whichever first occurs, unless specified otherwise in the SCC. If during the Defect Liability Period any defect should be found in the design, engineering, materials and workmanship of the Plant and Equipment supplied or of the work executed by the Contractor, the Contractor shall promptly, in consultation and agreement with the Employer regarding appropriate remedying of the defects, and at its cost, repair, replace or otherwise make good (as the Contractor shall, at its discretion, determine) such defect as well as any damage to the Facilities caused by such defect. The Contractor shall not be responsible for the repair, replacement or making good of any defect or of any damage to the Facilities arising out of or resulting from any of the

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			following causes: (a) improper operation or maintenance of the Facilities by the Employer (b) operation of the Facilities outside specifications provided in the Contract (c) normal wear and tear.
		27.3	The Contractor's obligations under this GCC Clause 27 shall not apply to (a) any materials that are supplied by the Employer under GCC Sub-Clause 21.2 (Employer-Supplied Plant, Equipment and Materials), are normally consumed in operation, or have a normal life shorter than the Defect Liability Period stated herein (b) any designs, specifications or other data designed, supplied or specified by or on behalf of the Employer or any matters for which the Contractor has disclaimed responsibility herein (c) any other materials supplied or any other work executed by or on behalf of the Employer, except for the work executed by the Employer under GCC Sub-Clause 27.7.
		27.4	The Employer shall give the Contractor a notice stating the nature of any such defect together with all available evidence thereof, promptly following the discovery thereof. The Employer shall afford all reasonable opportunity for the Contractor to inspect any such defect.
		27.5	The Employer shall afford the Contractor all necessary access to the Facilities and the Site to enable the Contractor to perform its obligations under this GCC Clause 27. The Contractor may, with the consent of the Employer, remove from the Site any Plant and Equipment or any part of the Facilities that are defective if the nature of the defect, and/or any damage to the Facilities caused by the defect, is such that repairs cannot be expeditiously carried out at the Site.
		27.6	If the repair, replacement or making good is of such a character that it may affect the efficiency of the Facilities or any part thereof, the Employer may give to the Contractor a notice requiring that tests of the defective part of the Facilities shall be made by the Contractor immediately upon completion of such remedial work, whereupon the Contractor shall carry out such tests. If such part fails the tests, the Contractor shall carry out further repair, replacement or making good (as the case may be) until that part of the Facilities passes such tests. The tests in character shall in any case be not less than what has already been agreed by the Employer and the Contractor for the original equipment/part of the Facilities.
		27.7	If the Contractor fails to commence the work necessary to remedy such defect or any damage to the Facilities caused by such defect within a reasonable time (which shall in no event be considered to be less than fifteen (15) days), the Employer may, following notice to the Contractor, proceed to do such work, and the reasonable costs incurred by the

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			Employer in connection therewith shall be paid to the Employer by the Contractor or may be deducted by the Employer from any monies due to the Contractor or claimed under the Performance Security.
		27.8	If the Facilities or any part thereof cannot be used by reason of such defect and/or making good of such defect, the Defect Liability Period of the Facilities or such part, as the case may be, shall be extended by a period equal to the period during which the Facilities or such part cannot be used by the Employer because of any of the aforesaid reasons. Upon correction of the defects in the Facilities or any part thereof by repair/replacement, such repair/replacement shall have the Defect Liability Period extended by a period as specified in the Technical specification from the time such replacement/repair of the Facilities or any part thereof. 27.8.1 At the end of the Defect Liability Period, the contractor liability ceases except for latent defects. The contractor's liability for latent defects warranty shall be limited to a period of five (5) years from the end of Defect Liability Period. For the purpose of this clause, the latent defects shall be the defects inherently lying within the material or arising out of design deficiency which do not manifest themselves during the Defect Liability Period in this GCC clause 27, but later. In case, there is any dispute between Employer and Contractor regarding latent defects, a third party as mutually agreed upon by the Employer and the Contractor shall be engaged by the Employer for settling the dispute. The third party, so engaged by the Employer, shall be paid fee plus reasonable expenditures incurred in the execution of its duties as mentioned above. These costs shall be initially paid by the Employer. In case of latent defect being proved, such costs shall be recoverable from the Contractor and the Contractor shall bear and reimburse such costs to the Employer. If the dispute regarding latent defects cannot be settled as above, then the dispute shall be settled as per provision of GCC clause 6 (Settlement of Disputes).
		27.9	Except as provided in GCC Clauses 27 and 33 (Loss of or Damage to Property / Accident or Injury to Workers/Indemnification), the Contractor shall be under no liability whatsoever and howsoever arising, and whether under the Contract or at law, in respect of defects in the Facilities or any part thereof, the Plant and Equipment, design or engineering or work executed that appear after Completion of the Facilities or any part thereof, except where such defects are the result of the gross negligence, fraud, criminal or wilful action of the Contractor.
		27.10	In addition, the Contractor shall also provide an extended warranty for any such component of the Facilities and during the period of time as may be specified in the SCC. Such obligation shall be in addition to the defect liability specified under GCC Sub-Clause 27.2.
28.	Functional Guarantees		

Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
		28.1	The Contractor guarantees that during the Guarantee Test, the Facilities and all parts thereof shall attain the Functional Guarantees specified in Appendix 8 (Functional Guarantees) to the Contract Agreement, subject to and upon the conditions therein specified.
		28.2	If, for reasons attributable to the Contractor, the guaranteed level of the Functional Guarantees specified in Appendix 8 (Functional Guarantees) to the Contract Agreement are not met either in whole or in part, the Contractor shall, within a mutually agreed time, at its cost and expense make such changes, modifications and/or additions to the Plant or any part thereof as may be necessary to meet such Guarantees. The Contractor shall notify the Employer upon completion of the necessary changes, modifications and/or additions, and shall seek the Employer's consent to repeat the Guarantee Test. If the specified Functional Guarantees are not established even during the repeat of the Guarantee Test, the Employer may at its option, either (a) Reject the Equipment and recover the payments already made, or (b) Terminate the Contract pursuant to GCC Sub-Clause 42.2.2 and recover the payments already made, or (c) Accept the equipment after levy of liquidated damages in accordance with the provisions specified in Appendix-8 (Functional Guarantees) to the Contract Agreement.
		28.3	In case the Employer exercises its option to accept the equipment after levy of liquidated damages, the payment of liquidated damages under GCC Sub-Clause 28.2, up to the limitation of liability specified in the Technical Specifications/Appendix-8 (Functional Guarantees) to the Contract Agreement, shall completely satisfy the Contractor's guarantees under GCC Sub-Clause 28.2, and the Contractor shall have no further liability whatsoever to the Employer in respect thereof. Upon the payment of such liquidated damages by the Contractor, the Project Manager shall issue the Operational Acceptance Certificate for the Facilities or any part thereof in respect of which the liquidated damages have been so paid.
29.	Patent Indemnity		
		29.1	The Contractor shall, subject to the Employer's compliance with GCC Sub-Clause 29.2, indemnify and hold harmless the Employer and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, which the Employer may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright or other intellectual property right registered or otherwise existing at the date of the Contract by reason of: (a) the installation of the Facilities by the Contractor or the use of the Facilities in the country where the Site is located; and (b) the sale of the products produced by the Facilities in any country. Such indemnity shall not cover any use of the Facilities or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, any infringement resulting from the use of the Facilities or any part thereof, or any products produced thereby in association or combination with any other equipment, plant or materials

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			not supplied by the Contractor, pursuant to the Contract Agreement.
		29.2	If any proceedings are brought or any claim is made against the Employer arising out of the matters referred to in GCC Sub-Clause 29.1, the Employer shall promptly give the Contractor a notice thereof, and the Contractor may at its own expense and in the Employer's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim. If the Contractor fails to notify the Employer within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Employer shall be free to conduct the same on its own behalf. Unless the Contractor has so failed to notify the Employer within the twenty-eight (28) day period, the Employer shall make no admission that may be prejudicial to the defence of any such proceedings or claim. The Employer shall, at the Contractor's request, afford all available assistance to the Contractor in conducting such proceedings or claim, and shall be reimbursed by the Contractor for all reasonable expenses incurred in so doing.
		29.3	The Employer shall indemnify and hold harmless the Contractor and its employees, officers and Subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, which the Contractor may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the Employer.
30.	Limitation of Liability		
		30.1	Except in cases of criminal negligence or willful misconduct, (a) neither Party shall be liable to the other Party, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, which may be suffered by the other Party in connection with the Contract, provided that this exclusion shall not apply to any obligation of the Contractor to pay liquidated damages to the Employer and (b) the aggregate liability of the Contractor to the Employer, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to any obligation of the Contractor to indemnify the Employer with respect to patent infringement. (c) the aggregate liability of the Employer to the Contractor except for GCC sub-clause 29.3, whether under the Contract, in tort or

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			otherwise, at any point of time during the execution/performance of the Contract, shall not exceed the 'total Contract Price less payments already released to the Contractor'.
			G. Risk Distribution
31.	Transfer of Ownership		
		31.1	Ownership of the Plant and Equipment
			Ownership of the Plant and Equipment (including spare parts) procured in the country where the Site is located shall be transferred to the Employer when the Plant and Equipment are loaded on to the mode of transport to be used to convey the Plant and Equipment from the works to the site and upon endorsement of the despatch documents in favour of the Employer.
		31.2	Ownership of the Contractor's Equipment used by the Contractor and its Subcontractors in connection with the Contract shall remain with the Contractor or its Subcontractors.
		31.3	Disposal of Surplus Material "Ownership of any Plant and Equipment in excess of the requirements for the Facilities (i.e. surplus material) shall revert to the Contractor upon Completion of the Facilities and Guarantee Test or at such earlier time when the Employer and the Contractor agree that the Plant and Equipment in question are no longer required for the Facilities, provided quantity of any Plant and Equipment specifically stipulated in the Contract shall be the property of the Employer whether or not incorporated in the Facilities. The Contractor shall remove from the site such surplus material brought by him in pursuance of the Contract, subject to the Contractor producing the necessary clearance from the relevant authorities (Customs, GST etc.), if required by law, in respect of re-export or disposal of the surplus material locally. The liability for the payment of the applicable taxes/duties, if any, on the surplus material so re-exported and/or disposed locally shall be that of the Contractor. The Contractor shall also indemnify to keep the Employer harmless from any act of omission or negligence on the part of the Contractor in following the statutory requirements with regard to removal/disposal of surplus material. The Indemnity-cum-Undertaking Agreement shall be furnished by contractor as per proforma enclosed in Section-VII (Part 3 of 3 - Forms and Procedures). Further, in case the laws require the Employer to take prior permission of the relevant Authorities before handing over the surplus material to the Contractor, the same shall be obtained by the Contractor on behalf of the Employer.
		31.4	Notwithstanding the transfer of ownership of the Plant and Equipment, the responsibility for care and custody thereof together with the risk of loss or damage thereto shall remain with the Contractor pursuant to GCC Clause 32 (Care of Facilities) hereof until Completion of the Facilities or the part thereof in which such Plant and Equipment are incorporated.

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		31.5	In case of two/three contracts entered into between the Employer and the Contractor as per GCC Sub-Clause 3.6 or where the Employer hands over his equipment to the Contractor for executing the Contract, then the Contractor shall at the time of taking delivery of the Equipment through Bill of Lading or other despatch documents furnish Trust Receipt for Plant, Equipment and Materials and also execute an Indemnity-cum-Undertaking Agreement in favour of the Employer in the form acceptable to Employer for keeping the equipment in safe custody and to utilise the same exclusively for the purpose of the said Contract. Proforma for the Trust Receipt and Indemnity-cum-Undertaking Agreement is enclosed under Section-VII (Forms and Procedures). The Employer shall also issue a separate Authorisation Letter to the Contractor to enable him to take physical delivery of plant, equipment and materials from the Employer as per proforma enclosed under Section-VII (Forms and Procedures).
32.	Care of Facilities		
		32.1	The Contractor shall be responsible for the care and custody of the Facilities or any part thereof until the date of Completion of the Facilities pursuant to GCC Clause 24 (Completion of the Facilities) or, where the Contract provides for Completion of the Facilities in parts, until the date of Completion of the relevant part, and shall make good at its own cost any loss or damage that may occur to the Facilities or the relevant part thereof from any cause whatsoever during such period. The Contractor shall also be responsible for any loss or damage to the Facilities caused by the Contractor or its Subcontractors in the course of any work carried out, pursuant to GCC Clause 27 (Defect Liability). Notwithstanding the foregoing, the Contractor shall not be liable for any loss or damage to the Facilities or that part thereof caused by reason of any of the matters specified or referred to in paragraphs (a), (b) and (c) of GCC Sub-Clauses 32.2 and 38.1.
		32.2	If any loss or damage occurs to the Facilities or any part thereof or to the Contractor's temporary facilities by reason of (a) (insofar as they relate to the country where the Site is located) nuclear reaction, nuclear radiation, radioactive contamination, pressure wave caused by aircraft or other aerial objects, or any other occurrences that an experienced contractor could not reasonably foresee, or if reasonably foreseeable could not reasonably make provision for or insure against, insofar as such risks are not normally insurable on the insurance market and are mentioned in the general exclusions of the policy of insurance, including War Risks and Political Risks, taken out under GCC Clause 34 (Insurance) hereof (b) any use or occupation by the Employer or any third party (other than a Subcontractor) authorized by the Employer of any part of the Facilities (c) any use of or reliance upon any design, data or specification provided or designated by or on behalf of the Employer, or any such matter for which the Contractor has disclaimed responsibility herein, the Employer shall pay to the Contractor all sums payable in respect of the Facilities executed, notwithstanding that the same be lost, destroyed

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			or damaged, and will pay to the Contractor the replacement value of all temporary facilities and all parts thereof lost, destroyed or damaged. If the Employer requests the Contractor in writing to make good any loss or damage to the Facilities thereby occasioned, the Contractor shall make good the same at the cost of the Employer in accordance with GCC Clause 39 (Change in the Facilities). If the Employer does not request the Contractor in writing to make good any loss or damage to the Facilities thereby occasioned, the Employer shall either request a change in accordance with GCC Clause 39 (Change in the Facilities), excluding the performance of that part of the Facilities thereby lost, destroyed or damaged, or, where the loss or damage affects a substantial part of the Facilities, the Employer shall terminate the Contract pursuant to GCC Sub-Clause 42.1 (Termination for Employer's Convenience) hereof, except that the Contractor shall have no entitlement to profit under paragraph (e) of GCC Sub-Clause 42.1.3 in respect of any unexecuted Facilities as at the date of termination.
		32.3	The Contractor shall be liable for any loss of or damage to any Contractor's Equipment, or any other property of the Contractor used or intended to be used for purposes of the Facilities, except (i) as mentioned in GCC Sub-Clause 32.2 (with respect to the Contractor's temporary facilities), and (ii) where such loss or damage arises by reason of any of the matters specified in GCC Sub-Clauses 32.2(b) and (c) and 38.1.
		32.4	With respect to any loss or damage caused to the Facilities or any part thereof or to the Contractor's Equipment by reason of any of the matters specified in GCC Sub-Clause 38.1, the provisions of GCC Sub-Clause 38.3 shall apply.
33.	Loss of or Damage to Property; Accident or Injury to workers; Indemnification		
		33.1	Subject to GCC Sub-Clause 33.3, the Contractor shall indemnify and hold harmless the Employer and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, in respect of the death or injury of any person or loss of or damage to any property (other than the Facilities whether accepted or not), arising in connection with the supply and installation of the Facilities and by reason of the negligence of the Contractor or its Subcontractors, or their employees, officers or agents, except any injury, death or property damage caused by the negligence of the Employer, its contractors, employees, officers or agents.
		33.2	If any proceedings are brought or any claim is made against the Employer that might subject the Contractor to liability under GCC Sub-Clause 33.1, the Employer shall promptly give the Contractor a notice thereof and the Contractor may at its own expense and in the Employer's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim. If the Contractor fails to notify the Employer within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Employer shall be free to conduct the same on its own behalf. Unless the Contractor has so failed to notify the Employer within the twenty-eight (28) day period, the Employer shall make no admission that may be prejudicial to the defence of any such

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			proceedings or claim. The Employer shall, at the Contractor's request, afford all available assistance to the Contractor in conducting such proceedings or claim, and shall be reimbursed by the Contractor for all reasonable expenses incurred in so doing.
		33.3	The Employer shall indemnify and hold harmless the Contractor and its employees, officers and Subcontractors from any liability for loss of or damage to property of the Employer, other than the Facilities not yet taken over, that is caused by fire, explosion or any other perils, in excess of the amount recoverable from insurances procured under GCC Clause 34 (Insurances), provided that such fire, explosion or other perils were not caused by any act or failure of the Contractor.
		33.4	The party entitled to the benefit of an indemnity under this GCC Clause 33 shall take all reasonable measures to mitigate any loss or damage which has occurred. If the party fails to take such measures, the other party's liabilities shall be correspondingly reduced.
34.	Insurance		
		34.1	To the extent specified in Appendix 3 (Insurance Requirements) to the Contract Agreement, the Contractor shall at its expense take out and maintain in effect, or cause to be taken out and maintained in effect, during the performance of the Contract, the insurances set forth below in the sums and with the deductibles and other conditions specified in the said Appendix. The identity of the insurers and the form of the policies shall be subject to the approval of the Employer, who should not unreasonably withhold such approval. (a) Cargo Insurance During Transport Covering loss or damage occurring while in transit from the Contractor's or Subcontractor's works or stores until arrival at the Site, to the Plant and Equipment (including spare parts therefor) and to the Contractor's Equipment. (b) Installation All Risks Insurance Covering physical loss or damage to the Facilities at the Site, occurring prior to Completion of the Facilities, with extended maintenance coverage for the Contractor's liability in respect of any loss or damage occurring during the Defect Liability Period while the Contractor is on the Site for the purpose of performing its obligations during the Defect Liability Period. (c) Third Party Liability Insurance Covering bodily injury or death suffered by third parties (including the Employer's personnel) and loss of or damage to property occurring in connection with the supply and installation of the Facilities. (d) Automobile Liability Insurance Covering use of all vehicles used by the Contractor or its Subcontractors (whether or not owned by them) in connection

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			with the execution of the Contract. (e) Workers' Compensation In accordance with the statutory requirements applicable in any country where the Contract or any part thereof is executed. (f) Employer's Liability In accordance with the statutory requirements applicable in any country where the Contract or any part thereof is executed. (g) Other Insurances Such other insurances as may be specifically agreed upon by the parties hereto as listed in the said Appendix 3.
		34.2	The Employer shall be named as co-insured under all insurance policies taken out by the Contractor pursuant to GCC Sub-Clause 34.1, except for the Third Party Liability, Workers' Compensation and Employer's Liability Insurances, and the Contractor's Subcontractors shall be named as co-insureds under all insurance policies taken out by the Contractor pursuant to GCC Sub-Clause 34.1 except for the Cargo Insurance During Transport, Workers' Compensation and Employer's Liability Insurances. All insurer's rights of subrogation against such co-insureds for losses or claims arising out of the performance of the Contract shall be waived under such policies.
		34.3	The Contractor shall, in accordance with the provisions of Appendix 3 (Insurance Requirements) to the Contract Agreement, deliver to the Employer certificates of insurance (or copies of the insurance policies) as evidence that the required policies are in full force and effect. The certificates shall provide that no less than twenty-one (21) days' notice shall be given to the Employer by insurers prior to cancellation or material modification of a policy.
		34.4	The Contractor shall ensure that, where applicable, its Subcontractor(s) shall take out and maintain in effect adequate insurance policies for their personnel and vehicles and for work executed by them under the Contract, unless such Subcontractors are covered by the policies taken out by the Contractor.
		34.5	The Employer shall at its expense take out and maintain in effect during the performance of the Contract those insurances specified in Appendix 3 (Insurance Requirements) to the Contract Agreement.
		34.6	If the Contractor fails to take out and/or maintain in effect the insurances referred to in GCC Sub-Clause 34.1, the Employer may take out and maintain in effect any such insurances and may from time to time deduct from any amount due the Contractor under the Contract any premium that the Employer shall have paid to the insurer, or may otherwise recover such amount as a debt due from the Contractor. If the Employer fails to take out and/or maintain in effect the insurances referred to in GCC 34.5, the Contractor may take out and maintain in effect any such insurances and may from time to time deduct from any amount due the Employer under the Contract any premium that the Contractor shall have paid to the insurer, or may otherwise recover such amount as a debt due from the Employer. If the Contractor fails to or is unable to take out and

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			maintain in effect any such insurances, the Contractor shall nevertheless have no liability or responsibility towards the Employer, and the Contractor shall have full recourse against the Employer for any and all liabilities of the Employer herein.
		34.7	Unless otherwise provided in the Contract, the Contractor shall prepare and conduct all and any claims made under the policies effected by it pursuant to this GCC Clause 34, and all monies payable by any insurers shall be paid to the Contractor as per the procedure outlined in GCC Sub-Clause 34.8 below. The Employer shall give to the Contractor all such reasonable assistance as may be required by the Contractor. With respect to insurance claims in which the Employer's interest is involved, the Contractor shall not give any release or make any compromise with the insurer without the prior written consent of the Employer. With respect to insurance claims in which the Contractor's interest is involved, the Employer shall not give any release or make any compromise with the insurer without the prior written consent of the Contractor.
		34.8	(i) Wherever total damages/loss of equipment/material, would occur, the Contractor will be entitled to payment of all payments received from the underwriters except the following amounts: (a) The amount paid to the Contractor under the Contract in respect of equipment/material damaged/lost (excluding the pro-rata initial advance) but including the entire amount of escalation, if any, already paid to the Contractor. (b) Taxes and duties which have already been paid by the Employer. In the event the claim money settled, is less than the total of the amount in a & b above, then the entire claim money settled will be retained by the Employer and the Contractor will forthwith pay the Employer the short fall amount between the claim money and the total of amounts as per a & b mentioned above. Subsequent payments, if any, due under the Contract shall be regulated by the relevant terms of payment. (ii) In case of damage to any equipment/material during any stage, the Contractor upon rectification of the damaged equipment to the satisfaction of the Employer shall be paid to the extent of full claims settled by the underwriters.
35.	Unforeseen Conditions		
		35.1	If, during the execution of the Contract, the Contractor shall encounter on the Site any physical conditions (other than climatic conditions) or artificial obstructions that could not have been reasonably foreseen prior to the date of the Contract Agreement by an experienced contractor on the basis of reasonable examination of the data relating to the Facilities (including any data as to boring tests) provided by the Employer, and on the basis of information that it could have obtained from a visual inspection of the Site (if access thereto was available) or other data readily available to it relating to the Facilities, and if the Contractor determines that it will in consequence of such conditions or obstructions incur additional cost and expense or require additional time to perform its obligations under the Contract that would not have been required if such physical conditions or artificial obstructions had not been

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			encountered, the Contractor shall promptly, and before performing additional work or using additional Plant and Equipment or Contractor's Equipment, notify the Project Manager in writing of (a) the physical conditions or artificial obstructions on the Site that could not have been reasonably foreseen (b) the additional work and/or Plant and Equipment and/or Contractor's Equipment required, including the steps which the Contractor will or proposes to take to overcome such conditions or obstructions (c) the extent of the anticipated delay (d) the additional cost and expense that the Contractor is likely to incur. On receiving any notice from the Contractor under this GCC Sub-Clause 35.1, the Project Manager shall promptly consult with the Employer and Contractor and decide upon the actions to be taken to overcome the physical conditions or artificial obstructions encountered. Following such consultations, the Project Manager shall instruct the Contractor, with a copy to the Employer, of the actions to be taken.
		35.2	Any reasonable additional cost and expense incurred by the Contractor in following the instructions from the Project Manager to overcome such physical conditions or artificial obstructions referred to in GCC Sub-Clause 35.1 shall be paid by the Employer to the Contractor as an addition to the Contract Price.
		35.3	If the Contractor is delayed or impeded in the performance of the Contract because of any such physical conditions or artificial obstructions referred to in GCC Sub-Clause 35.1, the Time for Completion shall be extended in accordance with GCC Clause 40 (Extension of Time for Completion).
36.	Change in Laws and Regulations		
		36.1	If, after the date seven (7) days prior to the deadline set for Price Bid submission, in the country where the Site is located, any law, regulation, ordinance, order or by-law having the force of law is enacted, promulgated, abrogated or changed (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the costs and expenses of the Contractor and/or the Time for Completion, the Contract Price shall be correspondingly increased or decreased, and/or the Time for Completion shall be reasonably adjusted to the extent that the Contractor has thereby been affected in the performance of any of its obligations under the Contract. However, these adjustments shall not be applicable on procurement of raw materials, intermediary components, and intermediary services etc. by the Contractor. Notwithstanding the foregoing, such additional or reduced costs shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with the Appendix 2 to the Contract Agreement.
37.	Force Majeure		

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		37.1	"Force Majeure" shall mean any event beyond the reasonable control of the Employer or of the Contractor, as the case may be, and which is unavoidable notwithstanding the reasonable care of the party affected.
		37.2	If either party is prevented, hindered or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances thereof within fourteen (14) days after the occurrence of such event.
		37.3	The party who has given such notice shall be excused from the performance or punctual performance of its obligations under the Contract for so long as the relevant event of Force Majeure continues and to the extent that such party's performance is prevented, hindered or delayed. The Time for Completion shall be extended in accordance with GCC Clause 40 (Extension of Time for Completion).
		37.4	The party or parties affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect thereof upon its or their performance of the Contract and to fulfil its or their obligations under the Contract, but without prejudice to either party's right to terminate the Contract under GCC Sub-Clauses 37.6 and 38.5.
		37.5	No delay or non-performance by either party hereto caused by the occurrence of any event of Force Majeure shall (a) constitute a default or breach of the Contract (b) (subject to GCC Sub-Clauses 32.2, 38.3 and 38.4) give rise to any claim for damages or additional cost or expense occasioned thereby if and to the extent that such delay or non-performance is caused by the occurrence of an event of Force Majeure.
		37.6	If the performance of the Contract is substantially prevented, hindered or delayed for a single period of more than sixty (60) days or an aggregate period of more than one hundred and twenty (120) days on account of one or more events of Force Majeure during the currency of the Contract, the parties will attempt to develop a mutually satisfactory solution, failing which the dispute shall be resolved in accordance with GCC Clause 6.
		37.7	Notwithstanding GCC Sub-Clause 37.5, Force Majeure shall not apply to any obligation of the Employer to make payments to the Contractor herein.
38.	War Risks		
		38.1	"War Risks" shall mean any of the following events occurring or existing in or near the country (or countries) where the Site is located: (a) war, hostilities or warlike operations (whether a state of war is declared or not), invasion, act of foreign enemy and civil war (b) rebellion, revolution, insurrection, mutiny, usurpation of civil or military government, conspiracy, riot, civil commotion and terrorist acts, and

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			(c) any explosion or impact of any mine, bomb, shell, grenade or other projectile, missile, munitions or explosive of war.
		38.2	Notwithstanding anything contained in the Contract, the Contractor shall have no liability whatsoever for or with respect to (a) destruction of or damage to Facilities, Plant & Equipment, or any part thereof (b) destruction of or damage to property of the Employer or any third party (c) injury or loss of life if such destruction, damage, injury or loss of life is caused by any War Risks, and the Employer shall indemnify and hold the Contractor harmless from and against any and all claims, liabilities, actions, lawsuits, damages, costs, charges or expenses arising in consequence of or in connection with the same.
		38.3	If the Facilities or any Plant and Equipment or Contractor's Equipment or any other property of the Contractor used or intended to be used for the purposes of the Facilities shall sustain destruction or damage by reason of any War Risks, the Employer shall pay the Contractor for (a) any part of the Facilities or the Plant and Equipment so destroyed or damaged (to the extent not already paid for by the Employer) (b) replacing or making good any Contractor's Equipment or other property of the Contractor so destroyed or damaged so far as may be required by the Employer, and as may be necessary for completion of the Facilities, (c) replacing or making good any such destruction or damage to the Facilities or the Plant and Equipment or any part thereof. If the Employer does not require the Contractor to replace or make good any such destruction or damage to the Facilities, the Employer shall either request a change in accordance with GCC Clause 39 (Change in the Facilities), excluding the performance of that part of the Facilities thereby destroyed or damaged or, where the loss, destruction or damage affects a substantial part of the Facilities, shall terminate the Contract, pursuant to GCC Sub-Clause 42.1 (Termination for Employer's Convenience).
		38.4	Notwithstanding anything contained in the Contract, the Employer shall pay the Contractor for any increased costs or incidentals to the execution of the Contract that are in any way attributable to, consequent on, resulting from, or in any way connected with any War Risks, provided that the Contractor shall as soon as practicable notify the Employer in writing of any such increased cost.
		38.5	If during the performance of the Contract any War Risks shall occur that financially or otherwise materially affect the execution of the Contract by the Contractor, the Contractor shall use its reasonable efforts to execute the Contract with due and proper consideration given to the safety of its and its Subcontractors' personnel engaged in the work on the Facilities, provided, however, that if the execution of the work on the Facilities

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			becomes impossible or is substantially prevented for a single period of more than sixty (60) days or an aggregate period of more than one hundred and twenty (120) days on account of any War Risks, the parties will attempt to develop a mutually satisfactory solution, failing which the dispute will be resolved in accordance with GCC Clause 6.
		38.6	In the event of termination pursuant to GCC Sub-Clauses 38.3, the rights and obligations of the Employer and the Contractor shall be specified in GCC Sub-Clauses 42.1.2 and 42.1.3, except that the Contractor shall have no entitlement to profit under paragraph (e) of GCC Sub-Clause 42.1.3 in respect of any unexecuted Facilities as of the date of termination.
H. Change in Contract Elements			
39.	Change In The Facilities		
		39.1	Introducing a Change 39.1.1 The Employer shall have the right to propose, and subsequently require, that the Project Manager order the Contractor from time to time during the performance of the Contract to make any change, modification, addition or deletion to, in or from the Facilities (hereinafter called "Change"), provided that such Change falls within the general scope of the Facilities and does not constitute unrelated work and that it is technically practicable, taking into account both the state of advancement of the Facilities and the technical compatibility of the Change envisaged with the nature of the Facilities as specified in the Contract . 39.1.2 The Contractor may from time to time during its performance of the Contract propose to the Employer (with a copy to the Project Manager) any Change that the Contractor considers necessary or desirable to improve the quality, efficiency or safety of the Facilities. The Employer may at its discretion approve or reject any Change proposed by the Contractor. 39.1.3 Notwithstanding GCC Sub-Clauses 39.1.1 and 39.1.2, no change made necessary because of any default of the Contractor in the performance of its obligations under the Contract shall be deemed to be a Change, and such change shall not result in any adjustment of the Contract Price or the Time for Completion. 39.1.4 The procedure on how to proceed with and execute Changes is specified in GCC Sub-Clauses 39.2 and 39.3.
		39.2	Changes Originating from Employer 39.2.1 If the Employer proposes a Change pursuant to GCC Sub-Clause 39.1.1, it shall send to the Contractor a "Request for Change Proposal," requiring the Contractor to prepare and furnish to the Project Manager as soon as reasonably practicable a "Change Proposal," which shall include the following:

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			(a) brief description of the Change (b) effect on the Time for Completion (c) estimated cost of the Change (d) effect on Functional Guarantees (if any) (e) effect on any other provisions of the Contract. 39.2.2 The pricing of any change shall, as far as practicable, be calculated in accordance with the rates and prices included in the Contract. If the rates and prices of any change are not available in the Contract, the parties thereto shall agree on specific rates for the variation of the change. 39.2.3 If before or during the preparation of the Change Proposal it becomes apparent that the aggregate effect of compliance therewith and with all other Change Orders that have already become binding upon the Contractor under this GCC Clause 39 would be to increase or decrease the Contract Price as originally set forth in Article 2 (Contract Price) of the Contract Agreement by more than fifteen (15) percent, the Contractor may give a written notice of objection thereto prior to furnishing the Change Proposal as aforesaid. If the Employer accepts the Contractor's objection, the Employer and the Contractor shall agree on specific rates for valuation of the change. 39.2.4 Upon receipt of the Change Proposal, the Employer and the Contractor shall mutually agree upon all matters therein contained including agreement on rates if such rates are not available in the Contract or if the limit of 15% set forth in Clause 39.2.3 has been exceeded. Within fourteen (14) days after such agreement, the Employer shall, if it intends to proceed with the Change, issue the Contractor with a Change Order. If the Employer is unable to reach a decision within fourteen (14) days, it shall notify the Contractor with details of when the Contractor can expect a decision. If the Employer decides not to proceed with the Change for whatever reason, it shall, within the said period of fourteen (14) days, notify the Contractor accordingly. 39.2.5 If the Employer and the Contractor cannot reach agreement on the price for the Change, an equitable adjustment to the Time for Completion, or any other matters identified in the Change Proposal, the Employer may nevertheless instruct the Contractor to proceed with the Change by issue of a "Pending Agreement Change Order." Upon receipt of a Pending Agreement Change Order, the Contractor shall immediately proceed with effecting the Changes covered by such Order. The parties shall thereafter attempt to reach agreement on the outstanding issues under the Change Proposal. If the parties cannot reach agreement within sixty (60) days from the date of issue of the Pending Agreement Change Order, then the matter may be referred to the Expert Settlement Council (ESC) in accordance with the provisions of GCC Sub-Clause 6.4.1.

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
		39.3	Changes Originating from Contractor 39.3.1 If the Contractor proposes a Change pursuant to GCC Sub-Clause 39.1.2, the Contractor shall submit to the Project Manager a written "Application for Change Proposal," giving reasons for the proposed Change and including the information specified in GCC Sub-Clause 39.2.1. Upon receipt of the Application for Change Proposal, the parties shall follow the procedures outlined in GCC Sub-Clauses 39.2.4 and 39.2.5.
40.	Extension of Time for Completion		
		40.1	The Time(s) for Completion specified in the SCC shall be extended if the Contractor is delayed or impeded in the performance of any of its obligations under the Contract by reason of any of the following: (a) any Change in the Facilities as provided in GCC Clause 39 (Change in the Facilities) (b) any occurrence of Force Majeure as provided in GCC Clause 37 (Force Majeure), unforeseen conditions as provided in GCC Clause 35 (Unforeseen Conditions), or other occurrence of any of the matters specified or referred to in paragraphs (a), (b) and (c) of GCC Sub-Clause 32.2 (c) any suspension order given by the Employer under GCC Clause 41 (Suspension) hereof or reduction in the rate of progress pursuant to GCC Sub-Clause 41.2 or (d) any changes in laws and regulations as provided in GCC Clause 36 (Change in Laws and Regulations) or (e) any default or breach of the Contract by the Employer, specifically including failure to supply the items listed in Appendix 6 (Scope of Works and Supply by the Employer) to the Contract Agreement, or any activity, act or omission of any other contractors employed by the Employer or failure to give possession of site under GCC Clause 10.2. (f) any other matter specifically mentioned in the Contract; by such period as shall be fair and reasonable in all the circumstances and as shall fairly reflect the delay or impediment sustained by the Contractor.
		40.2	Except where otherwise specifically provided in the Contract, the Contractor shall submit to the Project Manager a notice of a claim for an extension of the Time for Completion, together with particulars of the event or circumstance justifying such extension as soon as reasonably practicable after the commencement of such event or circumstance. As soon as reasonably practicable after receipt of such notice and supporting particulars of the claim, the Employer and the Contractor shall agree upon the period of such extension. In the event that the Contractor does not accept the Employer's estimate of a fair and reasonable time extension, the Contractor shall be entitled to refer the matter to the Expert Settlement Council (ESC), pursuant to GCC Sub-

Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			Clause 6.4.1.
		40.3	The Contractor shall at all times use its reasonable efforts to minimize any delay in the performance of its obligations under the Contract.
		40.4	Documents for Consideration of Time Extension The following documents shall form the principal basis for consideration of Time Extension pursuant to GCC clause 40 with or without LD, levy of liquidated damages pursuant to GCC clause 26 and settlement of extra claims during the execution of contract: 1. The joint recordings in "Hindrance Register" and "Weekly Review Register". 2. Records of Technical Coordination Meetings. 3. Records of Contract Review meetings. 4. Written notices issued by the "Project Manager" or his authorized representative to Contractor in the relevant period.
41.	Suspension		
		41.1	The Employer/ Project Manager may, by notice to the Contractor, order the Contractor to suspend performance of any or all of its obligations under the Contract. Such notice shall specify the obligation of which performance is to be suspended, the effective date of the suspension and the reasons therefor. The Contractor shall thereupon suspend performance of such obligation (except those obligations necessary for the care or preservation of the Facilities) until ordered in writing to resume such performance by the Project Manager/ Employer. If, by virtue of a suspension order given by the Project Manager/Employer, other than by reason of the Contractor's default or breach of the Contract, the Contractor's performance of any of its obligations is suspended for an aggregate period of more than ninety (90) days, then at any time thereafter and provided that at that time such performance is still suspended, the Contractor may give a notice to the Project Manager requiring that the Employer shall, within twenty-eight (28) days of receipt of the notice, order the resumption of such performance or request and subsequently order a change in accordance with GCC Clause 39 (Change in the Facilities), excluding the performance of the suspended obligations from the Contract. If the Employer fails to do so within such period, the Contractor may, by a further notice to the Project Manager, elect to treat the suspension, where it affects a part only of the Facilities, as a deletion of such part in accordance with GCC Clause 39 (Change in the Facilities) or, where it affects the whole of the Facilities, as termination of the Contract under GCC Sub-Clause 42.1 (Termination for Employer's Convenience).
		41.2	If (a) the Employer has failed to pay the Contractor any sum due under the Contract within the specified period, has failed to approve any invoice or supporting documents without just cause pursuant to Appendix 1 (Terms and Procedures of Payment) to the Contract Agreement, or commits a substantial breach of the Contract, the

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			Contractor may give a notice to the Employer that requires payment of such sum, requires approval of such invoice or supporting documents, or specifies the breach and requires the Employer to remedy the same, as the case may be. If the Employer fails to pay such sum, fails to approve such invoice or supporting documents or give its reasons for withholding such approval, or fails to remedy the breach or take steps to remedy the breach within fourteen (14) days after receipt of the Contractor's notice or (b) the Contractor is unable to carry out any of its obligations under the Contract for any reason attributable to the Employer, including but not limited to the Employer's failure to provide possession of or access to the Site or other areas in accordance with GCC Sub-Clause 10.2, or failure to obtain any governmental permit necessary for the execution and/or completion of the Facilities; then the Contractor may by fourteen (14) days' notice to the Employer suspend performance of all or any of its obligations under the Contract, or reduce the rate of progress.
		41.3	If the Contractor's performance of its obligations is suspended or the rate of progress is reduced pursuant to this GCC Clause 41, then the Time for Completion shall be extended in accordance with GCC Sub-Clause 40.1, and any and all additional costs or expenses incurred by the Contractor as a result of such suspension or reduction shall be paid by the Employer to the Contractor in addition to the Contract Price, except in the case of suspension order or reduction in the rate of progress by reason of the Contractor's default or breach of the Contract. The Bank Guarantee Charges and Insurance Charges for the extended period shall be reimbursed at actuals based on the written request of Contractor. The reimbursement of BG charges shall be made on the basis of documentary evidence submitted by the Contractor (such as debit advice of Bank) along with a Certificate from the issuing Bank, as per the format enclosed in Section-VII (Forms & Procedures). Further, the reimbursement of Insurance charges shall also be made on the basis of documentary evidence submitted by the Contractor. In addition, the Contractor should obtain Insurance Policy directly from the Insurance Company and not through Brokers. The aforesaid reimbursement of Bank Guarantee Charges and Insurance Charges shall be inclusive of GST.
		41.4	During the period of suspension, the Contractor shall not remove from the Site any Plant and Equipment, any part of the Facilities or any Contractor's Equipment, without the prior written consent of the Employer.
42.	Termination		
		42.1	Termination for Employer's Convenience 42.1.1 The Employer may at any time terminate the Contract for any reason by giving the Contractor a notice of termination that refers to this GCC Sub-Clause 42.1. 42.1.2 Upon receipt of the notice of termination under GCC Sub-

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			Clause 42.1.1, the Contractor shall either immediately or upon the date specified in the notice of termination (a) cease all further work, except for such work as the Employer may specify in the notice of termination for the sole purpose of protecting that part of the Facilities already executed, or any work required to leave the Site in a clean and safe condition (b) terminate all subcontracts, except those to be assigned to the Employer pursuant to paragraph (d) (ii) below (c) remove all Contractor's Equipment from the Site, repatriate the Contractor's and its Subcontractors' personnel from the Site, remove from the Site any wreckage, rubbish and debris of any kind, and leave the whole of the Site in a clean and safe condition. (d) In addition, the Contractor, subject to the payment specified in GCC Sub-Clause 42.1.3, shall (i) deliver to the Employer the parts of the Facilities executed by the Contractor up to the date of termination (ii) to the extent legally possible, assign to the Employer all right, title and benefit of the Contractor to the Facilities and to the Plant and Equipment as at the date of termination, and, as may be required by the Employer, in any subcontracts concluded between the Contractor and its Subcontractors (iii) deliver to the Employer all non-proprietary drawings, specifications and other documents prepared by the Contractor or its Subcontractors as at the date of termination in connection with the Facilities. 42.1.3 In the event of termination of the Contract under GCC Sub-Clause 42.1.1, the Employer shall pay to the Contractor the following amounts: (a) the Contract Price, properly attributable to the parts of the Facilities executed by the Contractor as of the date of termination (b) the costs reasonably incurred by the Contractor in the removal of the Contractor's Equipment from the Site and in the repatriation of the Contractor's and its Subcontractors' personnel (c) any amounts to be paid by the Contractor to its Subcontractors in connection with the termination of any subcontracts, including any cancellation charges (d) costs incurred by the Contractor in protecting the Facilities and leaving the Site in a clean and safe condition pursuant to paragraph (a) of GCC Sub-Clause 42.1.2

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			(e) the cost of satisfying all other obligations, commitments and claims that the Contractor may in good faith have undertaken with third parties in connection with the Contract and that are not covered by paragraphs (a) through (d) above.
		42.2	Termination for Contractor's Default 42.2.1 The Employer, without prejudice to any other rights or remedies it may possess, may terminate the Contract forthwith in the following circumstances by giving a notice of termination and its reasons therefor to the Contractor, referring to this GCC Sub-Clause 42.2: (a) if the Contractor becomes bankrupt or insolvent, has a receiving order issued against it, compounds with its creditors, or, if the Contractor is a corporation, a resolution is passed or order is made for its winding up (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), a receiver is appointed over any part of its undertaking or assets, or if the Contractor takes or suffers any other analogous action in consequence of debt (b) if the Contractor assigns or transfers the Contract or any right or interest therein in violation of the provision of GCC Clause 43 (Assignment). (c) if the Contractor, in the judgement of the Employer has engaged in corrupt or fraudulent practices in competing for or in executing the Contract. For the purpose of this Sub-Clause : "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Employer and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition. (d) If the Contractor, sub-contracts any part of the works in violation of the provision of GCC Clause 19.4. 42.2.2 If the Contractor (a) has abandoned or repudiated the Contract (b) has without valid reason failed to commence work on the Facilities promptly or has suspended (other than pursuant to GCC Sub-Clause 41.2) the progress of Contract performance for more than twenty-eight (28) days after receiving a written instruction from the Employer to proceed

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			(c) persistently fails to execute the Contract in accordance with the Contract or persistently neglects to carry out its obligations under the Contract without just cause (d) refuses or is unable to provide sufficient materials, services or labour to execute and complete the Facilities in the manner specified in the program furnished under GCC Clause 18 (Program of Performance) at rates of progress that give reasonable assurance to the Employer that the Contractor can attain Completion of the Facilities by the Time for Completion as extended then the Employer may, without prejudice to any other rights it may possess under the Contract, give a notice to the Contractor stating the nature of the default and requiring the Contractor to remedy the same. If the Contractor fails to remedy or to take steps to remedy the same within fourteen (14) days of its receipt of such notice, then the Employer may terminate the Contract forthwith by giving a notice of termination to the Contractor that refers to this GCC Sub-Clause 42.2. 42.2.3 Upon receipt of the notice of termination under GCC Sub-Clauses 42.2.1 or 42.2.2, the Contractor shall, either immediately or upon such date as is specified in the notice of termination, (a) cease all further work, except for such work as the Employer may specify in the notice of termination for the sole purpose of protecting that part of the Facilities already executed, or any work required to leave the Site in a clean and safe condition (b) terminate all subcontracts, except those to be assigned to the Employer pursuant to paragraph (d) below (c) deliver to the Employer the parts of the Facilities executed by the Contractor up to the date of termination (d) to the extent legally possible, assign to the Employer all right, title and benefit of the Contractor to the Works and to the Plant and Equipment as at the date of termination, and, as may be required by the Employer, in any subcontracts concluded between the Contractor and its Subcontractors (e) deliver to the Employer all drawings, specifications and other documents prepared by the Contractor or its Subcontractors as at the date of termination in connection with the Facilities. 42.2.4 The Employer may enter upon the Site, expel the Contractor, and complete the Facilities itself or by employing any third party. The Employer may, to the exclusion of any right of the Contractor over the same, take over and use with the payment of a fair rental rate to the Contractor, with all the maintenance costs to the account of the Employer and with an indemnification by the Employer for all liability including damage or injury to persons arising out of the Employer's use of such equipment, any Contractor's Equipment owned by the

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			Contractor and on the Site in connection with the Facilities for such reasonable period as the Employer considers expedient for the supply and installation of the Facilities. Upon completion of the Facilities or at such earlier date as the Employer thinks appropriate, the Employer shall give notice to the Contractor that such Contractor's Equipment will be returned to the Contractor at or near the Site and shall return such Contractor's Equipment to the Contractor in accordance with such notice. The Contractor shall thereafter without delay and at its cost remove or arrange removal of the same from the Site. 42.2.5 Subject to GCC Sub-Clause 42.2.6, the Contractor shall be entitled to be paid the Contract Price attributable to the Facilities executed as at the date of termination, the value of any unused or partially used Plant and Equipment on the Site, and the costs, if any, incurred in protecting the Facilities and in leaving the Site in a clean and safe condition pursuant to paragraph (a) of GCC Sub-Clause 42.2.3. Any sums due to the Employer from the Contractor accruing prior to the date of termination shall be deducted from the amount to be paid to the Contractor under this Contract. 42.2.6 If the Employer completes the Facilities, the cost of completing the Facilities by the Employer shall be determined. If the sum that the Contractor is entitled to be paid, pursuant to GCC Sub-Clause 42.2.5, plus the reasonable costs incurred by the Employer in completing the Facilities, exceeds the Contract Price, the Contractor shall be liable for such excess. If such excess is greater than the sums due to the Contractor under GCC Sub-Clause 42.2.5, the Contractor shall pay the balance to the Employer, and if such excess is less than the sums due to the Contractor under GCC Sub-Clause 42.2.5, the Employer shall pay the balance to the Contractor. The Employer and the Contractor shall agree, in writing, on the computation described above and the manner in which any sums shall be paid.
		42.3	Termination by Contractor
			42.3.1 If (a) the Employer has failed to pay the Contractor any sum due under the Contract within the specified period, has failed to approve any invoice or supporting documents without just cause pursuant to Appendix 1 (Terms and Procedures of Payment) of the Contract Agreement, or commits a substantial breach of the Contract, the Contractor may give a notice to the Employer that requires payment of such sum, requires approval of such invoice or supporting documents, or specifies the breach and requires the Employer to remedy the same, as the case may be. If the Employer fails to pay such sum, fails to approve such invoice or supporting documents or give its reasons for

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			withholding such approval, fails to remedy the breach or take steps to remedy the breach within fourteen (14) days after receipt of the Contractor's notice, or (b) the Contractor is unable to carry out any of its obligations under the Contract for any reason attributable to the Employer, including but not limited to the Employer's failure to provide possession of or access to the Site or other areas or failure to obtain any governmental permit necessary for the execution and/or completion of the Facilities which the Employer is required to obtain as per provision of the Contract or as per relevant applicable laws of the country, then the Contractor may give a notice to the Employer thereof, and if the Employer has failed to pay the outstanding sum, to approve the invoice or supporting documents, to give its reasons for withholding such approval, or to remedy the breach within twenty-eight (28) days of such notice, or if the Contractor is still unable to carry out any of its obligations under the Contract for any reason attributable to the Employer within twenty-eight (28) days of the said notice, the Contractor may by a further notice to the Employer referring to this GCC Sub-Clause 42.3.1, forthwith terminate the Contract. 42.3.2 The Contractor may terminate the Contract forthwith by giving a notice to the Employer to that effect, referring to this GCC Sub-Clause 42.3.2, if the Employer becomes bankrupt or insolvent, has a receiving order issued against it, compounds with its creditors, or, being a corporation, if a resolution is passed or order is made for its winding up (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), a receiver is appointed over any part of its undertaking or assets, or if the Employer takes or suffers any other analogous action in consequence of debt. 42.3.3 If the Contract is terminated under GCC Sub-Clauses 42.3.1 or 42.3.2, then the Contractor shall immediately (a) cease all further work, except for such work as may be necessary for the purpose of protecting that part of the Facilities already executed, or any work required to leave the Site in a clean and safe condition (b) terminate all subcontracts, except those to be assigned to the Employer pursuant to paragraph (d)(ii) (c) remove all Contractor's Equipment from the Site and repatriate the Contractor's and its Subcontractor's personnel from the Site (d) In addition, the Contractor, subject to the payment specified in GCC Sub-Clause 42.3.4, shall (i) deliver to the Employer the parts of the Facilities executed by the Contractor up to the date of termination (ii) to the extent legally possible, assign to the Employer all

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			right, title and benefit of the Contractor to the Facilities and to the Plant and Equipment as of the date of termination, and, as may be required by the Employer, in any subcontracts concluded between the Contractor and its Subcontractors (iii) deliver to the Employer all drawings, specifications and other documents prepared by the Contractor or its Subcontractors as of the date of termination in connection with the Facilities. 42.3.4 If the Contract is terminated under GCC Sub-Clauses 42.3.1 or 42.3.2, the Employer shall pay to the Contractor all payments specified in GCC Sub-Clause 42.1.3 and reasonable compensation for all loss or damage sustained by the Contractor arising out of, in connection with or in consequence of such termination. 42.3.5 Termination by the Contractor pursuant to this GCC Sub-Clause 42.3 is without prejudice to any other rights or remedies of the Contractor that may be exercised in lieu of or in addition to rights conferred by GCC Sub-Clause 42.3.
		42.4	In this GCC Clause 42, the expression "Facilities executed" shall include all work executed, Installation Services provided, any or all Plant and Equipment acquired (or subject to a legally binding obligation to purchase) by the Contractor and used or intended to be used for the purpose of the Facilities, up to and including the date of termination.
		42.5	In this GCC Clause 42, in calculating any monies due from the Employer to the Contractor, account shall be taken of any sum previously paid by the Employer to the Contractor under the Contract, including any advance payment paid pursuant to Appendix 1 (Terms and Procedures of Payment) to the Contract Agreement.
43.	Assignment		
		43.1	The Contractor shall not, without the express prior written consent of the Employer, assign to any third party the Contract or any part thereof, or any right, benefit, obligation or interest therein or thereunder, except that the Contractor shall be entitled to assign either absolutely or by way of charge any monies due and payable to it or that may become due and payable to it under the Contract.
			I. Other Conditions
44.	Contractor Performance Feedback and Evaluation System		
			The Employer has in place an established 'Contractor Performance and Feedback System' against which the Contractor's performance during the execution of Contract shall be evaluated on a continuous basis at regular intervals on the following seven parameters: • Engineering & Quality Assurance Capability • Finance • Supply • Construction/ Installation

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			- Field Quality - Safety - Claims & Disputes The score-based feedback formats based on which Contractor's performance shall be evaluated is enclosed at Annexure-A. In case the performance of the Contractor is found unsatisfactory, the Contractor shall be considered ineligible for participating in future tenders for two years. On completion of the above ineligibility period, the Contractor would be required to submit a request to Employer/NVVN for participating in future tenders specifying the measures taken to improve their performance. The Contractor may also request for early revocation of suspension after completion of at least one (1) year of the suspension period. On receipt of such request, the performance of the Contractor shall be assessed/evaluated by Employer/NTPC and if the performance is found to be satisfactory, the Contractor shall be considered eligible for participation in future tenders.
45.	Fraud Prevention Policy		
			The contractor along with their associate / collaborator / subcontractors / sub-vendors / consultants / service providers shall strictly adhere to the Fraud Prevention policy of the Employer displayed on its tender website http://www.ntpctender.ntpc.co.in / http://www.nvvn.co.in. The Contractor along with their associate / collaborator / subcontractors / sub-vendors / consultants / service providers shall observe the highest standard of ethics and shall not indulge or allow anybody else working in their organization to indulge in fraudulent activities during execution of the contract. The contractor shall immediately apprise the Employer about any fraud or suspected fraud as soon as it comes to their notice.
46.	Debarment		
			The Employer has in place a Policy for Debarment from Business Dealings displayed on the website www.ntpc.co.in / ntpctender.ntpc.co.in / http://www.nvvn.co.in. The version of Policy presently followed by NTPC is as mentioned in Special Conditions of Contract (SCC) of the Bidding Documents. Business dealings may be withheld or banned with the Contractor on account of any Default by the Contractor under GCC Clause 42.2.1 & 42.2.2 or any of the grounds as detailed in the said Debarment Policy.
47	Integrity Pact		
			If the Employer has terminated the Contract pursuant to Section-3 of the Integrity Pact (IP), the Employer shall encash the Contract Performance Bank Guarantee, in accordance with Section-4 of the Integrity Pact.
48	Independent External monitors		
			Independent External Monitors The Nodal Officer for necessary coordination with Independent External Monitors shall be as under:

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)			
			(i)	Concerned Group Head in C&M	:	if the issue pertains awarding of Contract by C&M
			(ii)	Concerned Head of Department	:	if the issue pertains to other departments
			(iii)	Concerned Head of of Department	:	if the issue pertains post- award execution of Contract
49	Contractor's Labour Information Management System (CLIMS)					
		49.1	(a) The Contractor has to necessarily get itself registered in the Contractor's Labour Information Management System (CLIMS), which will be installed by the Employer. (b) The entry and exit of all contract labour to the plant premises will be through Gate Access Control System of above 'Contractor's Labour Information Management System'. (c) It will be responsibility of the Contractor to ensure timely exit of all labours from the plant premises after completion of job of that day. (d) The Contractor has to abide with all the statutory compliance applicable to its workers and employees and update the details of the same in the above system.			
50	No Claim for interest or damage					
		50.1	Interest on money due to the contractor: Contractor shall not be entitled to any interest or damage in case of any delay on the part of the Employer to pay the amount due upon measurement or as per Contract or otherwise. Contractor shall also not be entitled to interest upon any guarantee/ security/ retention money or payments in arrears or upon any balance which may on the final settlement of his account be due to him.			
		50.2	No claim for interest or damage: No claim for interest or damage will be entertained or be payable by the Employer in respect of any amount or balance which may be lying with the Employer or may become due upon settlement/adjudication of any dispute, difference or misunderstanding between the parties by way of arbitration or court proceedings or otherwise or in respect of any delay or omission on the part of the Employer in making intermediate or final payment or in respect of any amount/damage which may be claimed through arbitration or court proceedings or in any other respect whatsoever.			
51	Human Resources	51.1	The Contractor for the purpose of the Contract shall engage / employ adequate number of key personnel in all areas such as design, engineering, construction, installation, planning, scheduling and carrying out of all maintenance of his plant and equipment, safety and competent and skilled work force as directed by the Project Manager. The Project Manager will approve any proposed replacement of such key personnel including work force only if their qualifications, experience, competence and capabilities are substantially equal to or better than those personnel originally identified and approved by the Project Manager.			
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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
		51.2	The Project Manager may require the Contractor to remove from Site of Works or from any other area of Work related to the Contract, any member of the Contractor personnel or work force who (i) Persists in any misconduct or lack of care (ii) Performs his duties incompetently or negligently or otherwise carelessly (iii) Fails to conform with any provisions of the Contract or (iv) Persists in any conduct which is prejudicial to the safety, health or protection of the Work and environment.
		51.3	If appropriate, the Contractor shall appoint a suitable replacement within fourteen (14) days or within such period as may be agreed between the Project Manager and Contractor. The Contractor shall unless otherwise provided in the Contract, make his own arrangement for engagement of all staff and labor, local or otherwise and for their payment, housing, transport, lodging and welfare as may be required by law and or by industry practice. The Contractor shall provide the Project Manager a return in detail in such form and at such intervals as he may reasonably prescribe showing the staff and number of the several classes of labour and other staff from time to time employed by the Contractor at Site or in connection with the Work along with such information as the Project Manager may reasonably require.
		51.4	Labor laws and Regulations and compliance thereof 51.4.1 During the entire period of Contract, the Contractor and his Sub-Contractors shall, at all times abide by all existing labor enactments, rules made therein, regulations, notifications and bye-laws by the appropriate government, local authority or any other labor laws or notification that may be issued under any labor law prevailing as on the date seven (7) days prior to the date set for opening of the Techno-Commercial Bids, published by the State or Central Government or Local Authorities. An illustrative list of applicable acts, notifications, rules etc. in connection with the labor as applicable as mentioned subsequently at para 51.4.8 in GCC. This list is not in any way exhaustive and shall not absolve the Contractor from any of his liabilities or responsibilities in compliance with any other laws, regulations, notifications that may be in force during the tenure of Contract. 51.4.2 The Contractor and his Sub-Contractors shall indemnify the Employer, from any action taken against the Employer by any competent authority in connection with the enforcement of the applicable laws, regulations, notifications, on account of contravention of any of the provisions therein, including amendments thereto. If the Employer is caused to pay or otherwise made liable, such amounts as may be necessary for non-observance of the provisions stipulated in the laws, rules, notifications including amendments, if any on the part of the Contractor and/or his Sub-Contractors, the Project

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			Manager / Employer shall have the right to deduct any such money from any amount due to the Contractor including his performance security, under the Contract. The Employer shall also have the right to recover from the Contractor any sum required or estimated as required for making good any loss or damage suffered / likely to be suffered by the Employer, on this account. 51.4.3 If due to an enactment of any new Act or Statute and rules made thereunder or any modification to the Acts/ Statute or rules made thereunder, all after seven (7) days prior to the date set for opening of the Techno-Commercial Bids and as a consequence thereof, the Contractor has to incur additional cost or expenditure, the same will be reimbursed by the Employer to the Contractor, excepting those due to reasons attributable to the Contractor and those being already compensated by other provisions of the Contract, like Price Adjustment, Taxes and Duties etc. 51.4.4 It is specifically agreed that the Contractor and his Sub-Contractors shall obtain all the necessary registration, licenses, permits, authorizations etc. required under various enactments/ Regulations enforced from time to time, specifically registration as employer under Provident Fund Act and Contract Labor Regulation & Abolition Act, and the Employer shall not be liable for any violation by the Contractor in this regard. 51.4.5 The employees of the Contractor or his Sub-Contractor(s) shall in no case be treated as the employees of the Employer at any point of time. 51.4.6 The Contractor and his Sub-Contractors shall be liable to make all due payments to all their employees and ensure compliance with labor laws. If the Employer, is held liable as 'PRINCIPAL EMPLOYER' or otherwise to incur any expenditure or to make any contributions under any legislation of the Government or Court decision, in respect of the employees of the Contractor or his Sub-Contractors, then the Contractor would reimburse the amounts of such expenditure/contribution so made by the Employer. 51.4.7 In case the ESI act is not applicable to the area where the Work is executed, as evidenced by the Certificate/Letter submitted to this effect from the local authorities, the Contractor shall be liable to arrange and pay for the expenses towards the medical treatment in respect of all labor employed by him for the execution of the Contract. 51.4.8 The number and other relevant details of key personnel required to be engaged/ employed by the Contractor in all areas shall be finalized with the successful bidder during post bid discussions (if required). During the entire period of Contract, the Contractor and his Sub-Contractors shall, at all times abide by the following Acts/ Statutes related to Human Resources: 1. Factories Act, 1948; Contract Labor (Regulation &

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			Abolition) Act, 1970; 2. EPF & MP Act, 1952; 3. Building & Other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996; 4. ESI Act, 1948; 5. Minimum Wages Act, 1948; 6. Payment of Wages Act, 1936; 7. Payment of Bonus Act, 1965; 8. Payment of Gratuity Act, 1972; 9. Workmen's Compensation Act, 1923; 10. ID Act, 1947; 11. Maternity Benefit Act, 1961; 12. Inter-State Migrant Workmen (Regulation of Employment & Conditions of Service) Act, 1979; 13. Fatal Accidents Act, 1855 14. Model Welfare Code The above will deem to include all relevant/applicable rules made thereunder, regulations, notifications and bye laws of the State or Central Govt. or the local authority and any other labor law (including rules) regulations, bye laws as well as those that may be passed or notification that may be issued under any labor law present and in future either by State or Central Govt. or by local authority.
52	Materials obtained from Excavation		Materials of any kind obtained from excavation on the Site shall remain the property of the Employer and shall be disposed of as the Project Manager may direct.
53	Treasure, Trove, Fossils, etc		All fossils, coins, articles of value or antiquity and structures and other remains or things of geological or archaeological interest discovered on the Site shall be the absolute property of the Employer and the Contractor shall take reasonable precautions to prevent his workmen or any other person from removing or damaging any such article or thing, shall immediately upon discovery thereof and before removal acquaint the Project Manager with such discovery and carry out the Project Manager's directions as to the disposition of the same, at the cost of the Employer.
54	Protection of Trees		Trees shall be protected from damage during the course of the Works and earth level within at least one (1) meter of each such tree shall not be disturbed. Where necessary, such trees shall be protected by providing temporary fencing at the cost of the Employer.
55	Security Watch and Lighting		The Contractor shall provide and maintain at his own expense all lights, guards, fencing and watching when and where necessary or required by the Project Manager for the protection of the Works or for the safety and convenience of those employed on the Works or the public.
56	Prevention of Pollution		The Contractor shall make necessary arrangement to prevent pollution of the water in any adjacent water bodies including stream, springs, nallah, river and lakes etc. The Contractor shall be solely responsible and liable for all damage caused by any pollution that may take place during the execution of the Work.

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Clause No.			GENERAL CONDITIONS OF CONTRACT (GCC)
			58.2.3 In case the Contractor fails to provide the required proof of royalty payment with the RA bill then an amount based on the prevailing rates of the royalty shall be retained from the respective RA bill, as security against royalty, which shall be refunded to the Contractor on submission of proof of royalty payment. 58.2.4 The Contractor shall pay and indemnify the Employer against any default in payment of Royalties or Seigniorage Fee or Cess or other charges by the Contractor or the agency from which the Contractor purchases soil/earth, sand, stone/aggregates, metals, minerals or minor minerals. 58.2.5 In the event of there being a statutory increase in the rates of royalty charges/fresh levy of royalty on materials, the same shall be reimbursed to the Contractor upon submission of original challan by him of having made the payments at revised rates. In the event of there being a decrease in such rates, the same shall be recovered from the Contractor. The base date for calculating the increase or decrease shall be the rate as on seven (7) days prior to the deadline set for Price Bid submission. The total reimbursement (positive or negative) as specified above, to be paid or recovered, shall however be calculated on the quantity of materials actually considered while making the royalty payments to the concerned authorities, or the theoretical consumption of these materials (calculated on the basis of the volume of concrete or fill accepted for payment), whichever is less, and on the basis of documentary evidence of Govt. Notification. However, the Contractor will settle claims, if any, on account of over charge by the State Authorities.
59	Procedure for Contract Closing	59.1 59.2 59.3	The closing of the contract shall be effected after the warranty period/Defect Liability Period is successfully completed and the CPG of the Contractor is returned/ discharged. The thirteen (13) certificates (details as per Annexure-III to SCC), as per the proforma enclosed in Section VII (Forms and Procedures), shall be issued by the 'concerned departments of NVVN'/ 'Contractor', as applicable, and submitted to the concerned authority designated in NVVN for closing of Contracts. Both the Contractor and the Employer will make necessary efforts to complete the Contract Closing activities as per the timelines as mentioned at clause 59.2 above. It shall be the responsibility of the contractor to submit the drawings alongwith the reproducibles, QA documents, O&M Manuals, List of Spares, As Built drawings, deliverables, etc., as applicable, in a timely and sequential manner so that the contract closing activities are not delayed/impered. The Employer shall also use its best endeavors to expedite all activities leading to successful closure of the contract. The Employer will review and approve the documents submitted by the Contractor in a timely and expeditious manner and the approvals shall not be unreasonably withheld.

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ANNEXURE -A PERFORMANCE REPORT OF CONTRACTOR

GUIDELINES FOR FILLING THE FORMAT

- 1.0 The feedback shall be based on records, evidences and documents (hindrance register, DPR, monthly PRT MoM, contractor's MPR, etc). Due diligence shall be taken to capture the actual progress, hindrances, if any from the monthly progress report to be submitted by the concerned agency. As Daily Progress Report / Weekly Progress Report / Monthly Progress Report are key documents / inputs for Vendor Performance measurement. Non-submission of the aforesaid documents may also be reckoned as poor performance.
- 2.0 For measurement of contractor performance in various activities in supply, site execution etc, the Contractor shall submit quantified L-2 schedule within 3 months after scheduled completion of Basic Engg or 400 days from date of award, whichever is earlier. Based on the progress of detailed Engg, quantified L-2 shall be updated as and when required.
- 3.0 This vendor performance rating system is applicable for a particular package being executed by the report shall be prepared package wise and the screening committee may then take a final vendor. If the same vendor is executing multiple packages in a project or at number of NVVN/NVVN projects, the performance view for evaluating the overall performance of the vendor before initiating action for issuance of Notice for Withholding of business dealings with the concerned contractor, in case the performance is found unsatisfactory.

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FORMAT FOR ENGG & QA SCORE
(TO BE FILLED IN BY NVVN)

S.No.	Parameters	Max Score (A)	Act % age w.r.t. sch (B)	Marks obtained (C) = (A)x(B)
(i)	%age of “ Approval ” category drgs/ docs submitted within submission schedule.	30		
(ii)	%age of “ Information ” category drgs/ docs submitted within submission schedule.	20		
(iii)	%age of drgs/docs approved within approval schedule (in Cat-I/IV)*	20		
(iv)	%age of drgs/docs approved within approval schedule (in Cat-II/IVR)*	20		
(v)	%age of Sub-vendor proposal for items identified in “DR” category & submitted within agreed schedule (i.e. 3 months prior to schedule date of ordering identified in L2)**	10		
	TOTAL	100		

* For (iii) & (iv) above - If all drawings/documents due for approval are approved in Cat-I/IV within approval schedule, then marks allocated against (iii) & (iv) above shall be clubbed for calculation purpose.

** In case no “DR” proposal is submitted and orders are placed on already approved vendors, then full marks shall be given for calculation purpose against item (v).

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FORMAT FOR FINANCE SCORE
(TO BE FILLED IN BY NVVN ON MONTHLY BASIS DURING PRT MEETING)

S. no	Parameters	Max Score (A)	% Rating (B)	Marks Obtained (C) = (A) *(B)
(i)	Number of instances NVVN has to issue Comfort letters to sub-vendors for getting supplies.	25		
(ii)	Number of instances vendor has requested for advance against BG from NVVN (beyond contractual provision)	25		
(iii)	Number of instances of supply delay beyond 1 month after issuance of MDCC.	25		
(iv)	Number of instances of direct supply / diversion of materials / consumables by NVVN.	25		
	TOTAL	100		

*Performance to be captured by NVVN on monthly basis during PRT Meeting, based on details to be furnished by site P&S.

*(No instances = 100%

Up to 1 instance = 50%

more than 1 instances = 0%).

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FORMAT FOR SUPPLY SCORE
(TO BE FILLED IN BY NVVN CONTRACTS)

S. no	Parameters	Max Score (A)	Actual w.r.t. schedule (B)	% L2	Marks Obtained (C) = (A) *(B)
(i)	Ordering of Bought out items as per approved L2 network*				
	Major Bought out items	20			
	Minor Bought out items	5			
	Number of instances of cancellation / changes of BoI orders (No instances = 100% Up to 1 instances = 50% more than 1 instances = 0%).	10			
(ii)	Supply of Main Equipment per approved L2 network	60			
(iii)	Supply of ~~Mandatory spares~~ as per approved L2 network	5			
	TOTAL	100			

*If Major & Minor Bought out items are not separately identified in L-2 network then both shall be clubbed into single line item with Max score of 25.

Note: Overall % of actual progress vis-à-vis L2 schedule in Col (B) shall be arrived in the following manner:

- (i) Let there be n type of Items/systems identified in L2/Quantified L2 schedule i.e. E1, E2, E3 En.
- (ii) Let % progress for each type of Item/system vis-à-vis L2 schedule be %E1, %E2, %E3.....%En.
- (iii) Overall % in Col (B) = (%E1+ %E2+ %E3.....+%En)/n

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FORMAT FOR CONSTRUCTION/INSTALLATION SCORE
(TO BE FILLED IN BY NVVN)

S. no	Parameters	Max Score (A)	% of actual vis-à-vis L2 schedule (B)	Marks Obtained (C)=(A)*(B)
(i)	Physical progress i.e. Installation of equipment / item, Civil works (i.e. Excavation, RCC, Piling, etc), Structural Works (i.e. Structural Fabrication, Erection, etc) as per approved L2 network	95		
(ii)	Project Management Capability and resource Management by Vendor at site. (5 Negative marks per instance)			
	Number of instances of delay due to inadequate deployment of equipment and T&P, based on record maintained in hindrance register, monthly PRT MoM, contractor's MPR, etc.	(-)5		
	Number of instances of direct payment by NVVN to Contractor's sub-vendors to expedite supplies / services / the progress of work at site affected due to strike / delay in payments to labourers.	(-)5		
(iii)	Submission of Monthly Report in specified formats.	5		
	TOTAL	100		

Details of Area-wise performance is mentioned below:

Sr No.	Activities	Scope	L2 Finish Date	Actual Completed till L2 Finish	%age Comp
1	Excavation				
2	RCC				
3	Structural / Equipment Erection				
				Avg Comp %	

Note: For Physical Progress, overall % of actual progress vis-à-vis quantified L2 schedule in Col (B) shall be arrived in the following manner (Unit of measurement shall be as per approved BBU for respective activities):

(i) Let there be n category of works identified in L-2/Quantified L2 schedule i.e. W1, W2, W3 Wn.

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- (ii) Let % progress for each category of work vis-à-vis L2 schedule be %W1, %W2, %W3.....%Wn.
- (iii) Overall %in Col (B) = (%W1+ %W2+ %W3.....+%Wn)/n

Note:

- All incidences shall be relevant to the current performance evaluation cycle.
- In case of delay in front (including construction drawings for civil packages and other inputs, if any) release by NVVN, measurement of delay in execution by the contractor shall be normalized proportionally.
- Contractor will have to submit monthly progress report capturing actual physical progress viv-a-vis L2 schedule and delay in hand over of front by NVVN, if any. In case of front delay the same has to be jointly signed by NVVN engineer & Vendor.

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FORMAT FOR QUALITY SCORE
(TO BE FILLED IN BY NVVN)

S. no	Parameters	Max Score (A)	% Rating (B)	Marks Obtained (C)=(A) *(B)
(i)	Availability of Testing facilities (Available as per contractual requirement – 100% Not available – 0%)	25		
(ii)	Preventing recurrence of defects/complaints (up to 5 cases – 100%, Up to 10 cases – 40%, more than 10 cases – 0%)	25		
(iii)	Proper Storage & Preservation of Equipment/Material (Nil violation – 100%, Up to 1 case of violation – 40%, more than 1 cases of violation – 0%)	25		
(iv)	Deployment of Qualified Quality Officers/Manpower as per Contract (% deployment w.r.t. contractual requirement)	25		
	TOTAL	100		

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FORMAT FOR SAFETY SCORE

(TO BE FILLED IN BY NVVN)

S. no	Parameters	Max Score (A)	% Rating (B)	Marks Obtained (C)=(A) *(B)
(i)	Having safety policy and approved Safety Assurance Plan (available as per requirement – 100%, Not-available – 0%)	10		
(ii)	Violation of safety requirement as per Safety Assurance Plan. (0 violation = 100% Upto 3 violations = 50% more than 3 = 0%)	20		
(iii)	No. of incidence of Fatal accidents due to contractor's negligence (0 incidence = 100% 1 incidence = 50% more than 1 cases, or multiple fatalities in one instance = 0%)	50		
(iv)	No. of incidence of Non-Fatal accidents due to contractor's negligence (0 incidence = 100% Up to 5 incidence = 50% more than 5 = 0%)	10		
(v)	Deployment of Qualified Safety Officers as per contract (% deployment w.r.t. contractual requirement)	10		
	TOTAL	100		

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FORMAT FOR CLAIMS & DISPUTE SCORE

(TO BE FILLED IN BY NVVN)

S. no	Parameters	Max Score (A)	% Rating (B)	Marks Obtained (C)=(A) *(B)
(i)	No. of cases where Contractor stopped work on account of non-admittance/non settlement of claims (No case = 100% Upto 3 cases = 50% More than 3 cases = 0%)	70		
(ii)	No. of arbitration/legal cases resorted to by the Contractor (No case – 100%, otherwise 0%)	30		
	TOTAL	100		

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Overall Performance Evaluation

S. No.	Parameters	Max Score (A)	Score Obtained (B)	Weightage (C)	Max Weighted Score (D) = (A)*(C)	Weighted Score obtained (E) = (B)*(C)
(i)	Engineering & QA	100		0.20	20	
(ii)	Finance	100		0.20	20	
(iii)	Supply	100		0.20	20	
(iv)	Construction/Installation	100		0.20	20	
(v)	Quality	100		0.05	05	
(vi)	Safety	100		0.10	10	
(vii)	Claims & Disputes	100		0.05	05	
	Total			1.00	100	

Note: In case of Civil Contracts, score of Engineering & QA and Supply shall be NIL and weightage of Construction/Installation shall be 0.60.

Performance Rating

Total Weighted Score obtained	Performance Grade
Upto 50	Unsatisfactory
>50 to 70	Satisfactory
>70 to 80	Good
>80	Excellent

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SECTION – V

**SPECIAL CONDITIONS OF CONTRACT
(SCC)**

SECTION - V

SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract (SCC) shall supplement the General Conditions of Contract (GCC). Wherever there is a conflict, the provisions herein shall prevail over those in the GCC. The corresponding clause number of the GCC is indicated in parentheses.

Name of Package: DEVELOPMENT OF 17491 KW GRID CONNECTED ROOFTOP & GROUND MOUNTED SOLAR PROJECTS AT VARIOUS LOCATIONS OF CENTRAL ARMED FORCES AND DEPARTMENTS UNDER MINISTRY OF HOME AFFAIRS AND MINISTRY OF POWER - ZONE 5 (ASSAM, ARUNACHAL PRADESH, TRIPURA, MANIPUR, NAGALAND, MIZORAM, MEGHALAYA)

Bid Document No.: NVVN/ C&M /RE-314 /2024-25

Special Conditions (SCC) No.	GCC Clause Ref., if any	Special Conditions
1	Definitions (GCC Clause 1)	The Employer is: Name of Employer NTPC Vidyut Vyapar Nigam Limited Address of Employer NTPC Vidyut Vyapar Nigam Limited 5th Floor, Engineering Office Complex Plot No. A-8A, Sector-24,NOIDA (UP), India-201 301 The Project Manager is: Project Manager: Representative of Employer Time for Completion: 240 days from the date of Letter of Award. The terms 'Subcontractor' and 'Sub vendor' are interchangeable and they have the same meaning as defined under "Subcontractor" in GCC Clause No. 1. "Site" means the land/roof and other places upon which the Facilities are to be installed, and such other land or places as may be specified in the Contract as forming part of the Site. "Premise" means single or multiple buildings having one net-meter/net-billing/gross meter. "Entire Project" means all the premises in one or many locations specified in the contract. For avoidance of doubt, If there are multiple premises in one or many locations specified in the contract, then all the premises together shall constitute the project and shall be referred to as "Entire Project". "Pre-commissioning" is not applicable. "Commissioning" shall be as defined in Technical Specification. The same is reproduced here. "Commissioning" of the system shall refer to the date on which the System at each location / premise starts generating electric energy for continuous Five (05) hours using

BIDDING DOCUMENT NO.: NVVN/ C&M /RE-310 /2024-25 SECTION –V (SCC)	DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

Special Conditions (SCC) No.	GCC Clause Ref., if any	Special Conditions
		instruments and meters including Net metering/ net billing. “Completion of Facilities”/” Completion of facilities of Entire Project”/”Completion” means that the systems at all the premises/locations under the contract have been successfully commissioned, PG tests conducted and put in a tight and clean condition and punch points attended. “Installation Services” means all those services ancillary to the supply of the Plant and Equipment for the Facilities, to be provided by the Contractor under the Contract; e.g., transportation and provision of marine or other similar insurance, inspection, expediting, Site preparation works (including the provision and use of Contractor's Equipment and the supply of all construction materials required), installation, testing, commissioning, operations & maintenance required upto Completion of Facilities, the provision of operations and maintenance manuals, training of Employer's Personnel etc.
2	Contract Documents (GCC Clause 2.2)	The Contract will be signed in two originals and the Contractor shall be provided with one signed original and the remaining original will be retained by the Employer.
3	Contract Documents (GCC Clause 2.3)	The Contractor shall provide free of cost to the Employer all the engineering data, drawing and descriptive materials submitted with the bid, to form a part of the Contract immediately after Notification of Award.
4	Interpretation (GCC Clause 3) GCC 3.10	The word “Joint Venture or consortium” in GCC Clause 3.10 stands deleted.
5	Interpretation (GCC Clause 3) GCC 3.13	For the purpose of this contract, Country of Origin will be considered as India.
6	Scope of Facilities (GCC Clause 7) GCC 7.1	Add the following at the end of GCC CI 7.1: The scope of work also includes comprehensive Operation and Maintenance (O&M) of Solar Photo Voltaic Plant for a period of ten years from the date of completion of Facilities of entire project. However, as per NVVN requirement, the O&M period may be reduced, and the payment shall be given up to O&M period only.
7	Scope of Facilities GCC 7.3	Supply of Mandatory spares : Not Applicable Providing price of recommended spares covered under price Schedule No. 6: Not Applicable GCC Clause 7.3 – Not Applicable
8	Time for Commencement and Completion (GCC Clause 8) GCC 8.2	Time for Completion: 240 days from the date of NOA/LOA Further, Bidder is also to provide comprehensive Operation and Maintenance (O&M) of Solar Photo Voltaic Plant for a period of Ten years (10 Years) from the date of completion of Facility of entire project.

Special Conditions (SCC) No.	GCC Clause Ref., if any	Special Conditions
9	Employer's Responsibilities (GCC Clause 10) GCC Clause 10.5	Contractor shall provide sufficient, properly qualified operating and maintenance personnel; shall supply and make available all materials and facilities ; and shall perform all work and services of whatsoever nature, to properly carry out Commissioning and Guarantee Tests, all in accordance with the provisions of Technical Specification on or before the time specified in the program furnished by the Contractor under GCC Sub-Clause 18.2 (Program of Performance) hereof and in the manner thereupon specified or as otherwise agreed upon by the Employer and the Contractor.
10	Terms of Payment (GCC Clause 12.1)	Add the following at the end of GCC Cl 12.1: Brief extract of payment terms as specified in detail in Appendix -I to Form of Contract Agreement which shall be binding. A. Schedule No.1: Plant and Equipment (i) Five Percent (5 %) of the total Ex-Works price component as Initial Advance Payment (ii) Seventy Five Percent (75%) of Ex-works price component of the Contract price for each identified equipment on receipt of equipment at site on prorata basis and physical verification and certification by the Project Manager for the equipment received and stored at site. (iii) Ten Percent (10%) of Ex-works price Component of the contract price on successful Commissioning of the Premise (i.e net metering/net billing/behind the meter etc) on certification by the Project Manager. (iv) Ten Percent (10%) of Ex-works price component of the Contract price on Completion of Facilities of Entire Project and issuance of Completion Certificate by the project manager. In case the Contractor decides not to take advance payment, then advance amount shall be paid progressively on pro- rata basis along with the receipt payment. B. ~~Mandatory spares and Recommended Spares (When ordered) quoted on Ex-works (India) basis~~ C. Schedule No. 2: Local Transportation (i) Hundred Percent (100%) of Local Transportation charges (including inland transit insurance charges) for the plant and equipment and ~~mandatory spares~~ covered in Schedule-1 shall be paid to the Contractor pro-rata to the value of the equipment received at site and on production of invoices by the Contractor D. Schedule No. 3: Installation Services excluding operation and maintenance. (i) Ten Percent (10%) of the Installation Services Component of the Contract Price shall be paid to the Contractor, bearing interest at the rate of "[SBI 1-year MCLR as on 01st April of applicable year

Special Conditions (SCC) No.	GCC Clause Ref., if any	Special Conditions
		+ 150 bps] per annum” as advance payment (ii) Eighty Percent (80%) of the installation Services component of contract price shall be paid on pro-rata basis on completion of installation of equipments. (iii) Ten Percent (10%) of Ex-works price component of the Contract price on Completion of Facilities of Entire Project and issuance of Completion Certificate by the project manager. In case, the Contractor decides not to take interest bearing advance payment, the advance payment shall be proportionately adjusted in the balance payments excluding final payments. E. Schedule No. 3: Civil Works and Allied Works etc (i) Ten Percent (10 %) of the total Civil works Price component of the Contract Price will be paid to the Contractor, bearing interest at the rate of “[SBI 1-year MCLR as on 01st April of applicable year + 150 bps] per annum” as advance payment. (ii) Eighty Percent (80 %) of the total Civil Works Price Component of Contract Price shall be paid progressively on certification by the Project Manager (iii) Ten Percent (10%) of Ex-works price component of the Contract price on Completion of Facilities of Entire Project and issuance of Completion Certificate by the project manager. In case, the Contractor decides not to take interest bearing advance payment, the advance payment shall be proportionately adjusted in the balance payments excluding final payments Contractor shall provide relevant technical details, warrantee/guarantee along with sr. no. of models before release of final payment in a format that shall be given by Employer. F. Operation and Maintenance Charges (i) Operation and maintenance charges including all consumable, spares and equipment’s included in operation and maintenance charges shall be paid on pro-rata basis every three months on the certification of completion of work by Project Manager
11	Terms of Payment (GCC Clause 12.4)	Opening of Escrow Account: Not applicable

Special Conditions (SCC) No.	GCC Clause Ref., if any	Special Conditions
12	Terms of Payment (GCC Clause 12.5)	Add a new clause 12.5 to GCC Bidder shall raise only one invoice in a month for all the payments due/works done in previous month/period.
13	Securities (GCC clause 13) GCC 13.3.1	The Contractor shall, within twenty-eight (28) days of the Notification of Award, provide securities for the due performance of the Contract for Ten Percent (10%) of Contract Price of all the Contracts, with an initial validity up to 15 months after the Completion of Facilities of the entire solar project under the Contract. However, in case of delay in Completion of Facilities, the validity of all the contract performance securities shall be extended by the period of such delay. After the end of successful completion of period mentioned above, CPG shall be returned to agency provided agency has submitted CPG @10% of O&M Contract price and Security against Equipment Performance Guarantee during O&M Period The BG towards O&M Performance shall be submitted prior to return of the Contract Performance Guarantee (CPG) under the subject package. The above O&M Performance Security shall be initially valid upto 90 days after the end of Operation & Maintenance (O&M) period as specified in the Technical Specifications. The above security amount shall be payable to the Employer without any condition whatsoever. Security against Equipment Performance Guarantee during O&M Period: BG for O&M. The successful Bidder, to whom the work is awarded, shall provide security equal to $0.1 \times G \times R$ (Where G is Annual Generation corresponding to CUF applicable for that year and $R = \text{Rs.5.00 per kWh}$) in million INR for ten years as per contract.
14	Securities (GCC clause 13) GCC 13.3.3	Security Shall not be released on Pro rota basis
15	Securities (GCC clause 13) GCC 13.4	Security for Deed of Joint Undertaking – Not Applicable
16	Design And Engineering (GCC Clause 20.3) GCC 20.3.2	Within 07 (seven) days after receipt by the Project Manager of any document requiring the Project Manager's approval in accordance with GCC Sub-Clause 20.3.1, the Project Manager shall either return one copy thereof to the Contractor with its approval endorsed thereon or shall notify the Contractor in writing of its disapproval thereof and the reasons therefor and the modifications that the Project Manager proposes
17	Procurement (GCC Clause 21) GCC 21.2	Employer-Supplied Plant, Equipment, and Materials - Not Applicable/Deleted
18	Completion of the Facilities (GCC Clause 24)	Contractor shall provide the operating and maintenance personnel and the raw materials, utilities, facilities, services and all other items, as specified in the Technical Specifications, in preparation for

Special Conditions (SCC) No.	GCC Clause Ref., if any	Special Conditions		
	GCC 24.3	Commissioning.		
19	Completion of the Facilities (GCC Clause 24) GCC 24.8	The Contractor shall be responsible for the care and custody of the Facilities or the relevant part thereof, together with the risk of loss or damage thereto upto the completion of O&M period.		
20	Commissioning, Guarantee Tests and Operational Acceptance (GCC Clause 25) GCC 25.1.1 para 2	The Contractor shall supply the operating and maintenance personnel and all raw materials, utilities, facilities, services and all other items required for Commissioning of the Facilities.		
21	Completion Time Guarantee (GCC Clause 26) GCC 26.2	Applicable Rate for Liquidated Damages A) Liquidated Damages for delay in successful Completion of Facilities shall be as under: If the contractor fails to achieve the successful Completion of Facilities within the agreed work schedule, the Contractor shall pay to the Employer as liquidated damages and not as penalty, a sum calculated at the following rates: <table><tr><td>(0.5% divided by 7) per day of the contract value corresponding to the capacity not commissioned</td><td>for each day of delay in successfully achieving the Commissioning for the Premise (i.e net metering/net billing/behind the meter) as per the scope of work and work schedule defined in the Contract.</td></tr></table> B) Maximum Deduction for Liquidated damages for delay: The total amount of liquidated damages for delay under the contract will be subject to a maximum of five percent (5%) of the total Contract Price [total of First & Second Contract] excluding O&M	(0.5% divided by 7) per day of the contract value corresponding to the capacity not commissioned	for each day of delay in successfully achieving the Commissioning for the Premise (i.e net metering/net billing/behind the meter) as per the scope of work and work schedule defined in the Contract.
(0.5% divided by 7) per day of the contract value corresponding to the capacity not commissioned	for each day of delay in successfully achieving the Commissioning for the Premise (i.e net metering/net billing/behind the meter) as per the scope of work and work schedule defined in the Contract.			
22	Defect Liability GCC Clause 27.2	Defect Liability Period shall be as per guarantees and warranties mentioned in Technical Specification for Solar Modules, Inverter and Solar Generation Meters and/or any other item for which guarantee/warranty is specifically mentioned in Technical Specification. For all other items/equipments in schedule C of Technical specification, the Defect Liability Period shall be twelve (12) months from the date of Completion of Facilities of Entire Project. If during the Defect Liability Period any defect should be found in the design, engineering, materials and workmanship of the Plant and Equipment supplied or of the work executed by the Contractor, the Contractor shall promptly, in consultation and agreement with the Employer regarding appropriate remedying of the defects, and at its cost, repair, replace or otherwise make good (as the Contractor shall, at its discretion, determine) such defect as well as any damage to the Facilities caused by such defect.		
23	Functional Guarantees GCC 28.0	The words “Appendix-8 (Functional Guarantee)” appearing in the GCC Clause 28 and any other places in the bidding documents shall be read in conjunction with Technical Specifications, Section-VI of Bidding Documents.		

Special Conditions (SCC) No.	GCC Clause Ref., if any	Special Conditions
24	Functional Guarantees GCC 28.1	Add the following at the end of Clause 28.1 The Contractor shall attain the functional guarantees for each termination/generation solar meter as given in Technical Specification after/before Commissioning of each premise and before the attainment of Completion of Facilities of Entire Project.
25	Functional Guarantees GCC 28.2	Add the following at the end of GCC CI 28.2: LD on account of non-achievement of functional Guarantees shall be as mentioned in Technical Specification (SCHEDULE D: PERFORMANCE TEST AND LIQUIDATED DAMAGES) LD Calculation for shortfall in generation shall be as mentioned in technical Specification (SCHEDULE D: PERFORMANCE TEST AND LIQUIDATED DAMAGES)
26	Care of Facilities GCC 32.1	The Contractor shall be responsible for the care and custody of the Facilities or any part thereof until the date of Completion of O&M period and shall make good at its own cost any loss or damage that may occur to the Facilities or the relevant part thereof from any cause whatsoever during such period. The Contractor shall also be responsible referred to in paragraphs (a), (b) and (c) of GCC Sub-Clauses 32.2 and 38.1.
27	Loss of or Damage to Property; Accident or Injury to workers; Indemnification (GCC Clause 33) GCC Clause 33.3 & Insurance (GCC Clause 34) GCC 34.1 (h) new clause	The Contractor shall further take Fire and peril insurance policy covering the risk of fire, damage, theft of material/ equipment/ properties after completion of the work(s) throughout the O&M period on replacement cost basis . During O&M period, Insurance is to be taken in the name of NVVN from any reputed agency with Employer's consent or from any nationalized agency.
28	Change In The Facilities GCC 39.2	Variation of +/-25% is allowed in the contract.
29	GCC 47 and 48	Integrity Pact and Independent External Monitors are applicable
30	General	The instruments such as Power of Attorney etc which are presently specified to be furnished on non-judicial stamp paper of appropriate/requisite value, shall be stamped as per Indian Stamp Act.
31	GCC 6.4.2.2 (Conciliation Committees of Independent Experts)	The Panel of Conciliation Committees of Independent Experts (CCIE) is displayed in the website https://ntpc.tender.ntpc.co.in
32	GCC 46 (Debarment)	The version of Policy for Debarment from Business dealings presently followed by NTPC is <u>Rev.04</u>

Special Conditions (SCC) No.	GCC Clause Ref., if any	Special Conditions
33	New Clause	Anti-Bribery and Anti-Corruption (ABAC) Policy: The Contractor and its employees along with its Associate/ Collaborator/ Sub- Contractors / Sub-Vendors / Consultants / Service Providers and all other persons associated with Employer in the performance of Contract shall strictly adhere to Employer's Anti-Bribery and Anti-Corruption (ABAC) Policy displayed on website https://ntpc.tender.ntpc.co.in/ under section 'policy docs'. The Contractor and its employees along with its Associate/ Collaborator/ Sub- Contractors / Sub-Vendors / Consultants / Service Providers and all other persons associated with Employer in the performance of Contract shall comply with all applicable laws and regulations relating to anti-corruption and anti-bribery and the ABAC Policy of Employer.
34		<u>ANNEXURES TO SCC</u> 1. ANNEXURE-I: LIST OF BANKS NTPC's Letter dated 03.09.2014 to SBI 2. ANNEXURE-II: NOT APPLICABLE 3. ANNEXURE-III: DETAILS OF CERTIFICATES REGARDING CONTRACT CLOSING 4. Annexure-IV: DoE Order regarding Rule 144 (xi) of the General Financial Rules (GFRs)

**LIST OF BANKS ACCEPTABLE FOR SUBMISSION
OF BANK GUARANTEE FOR ADVANCE PAYMENTS, PERFORMANCE SECURITIES AND SECURITIES
FOR DEED OF JOINT UNDERTAKING**

SCHEDULED COMMERCIAL BANKS

A. STATE BANK OF INDIA

B. NATIONALISED BANKS

- 1 Bank of Baroda
- 2 Bank of India
- 3 Bank of Maharashtra
- 4 Canara Bank
- 5 Central Bank of India
- 6 Indian Overseas Bank
- 7 Indian Bank
- 8 Punjab National Bank
- 9 Union Bank of India
- 10 Punjab & Sind Bank
- 11 UCO Bank

C. SCHEDULED PRIVATE BANKS (INDIAN BANKS)

- 1 Axis Bank Ltd
- 2 Bandhan Bank Limited
- 3 CSB Bank
- 4 City Union Bank
- 5 DCB Bank Ltd
- 6 Dhanlaxmi Bank Ltd
- 7 Federal Bank Ltd
- 8 HDFC Bank Ltd
- 9 ICICI Bank Ltd
- 10 IndusInd Bank Ltd
- 11 IDFC FIRST Bank Limited
- 12 Jammu & Kashmir Bank Ltd
- 13 Karnataka Bank Ltd
- 14 Karur Vysya Bank Ltd
- 15 Kotak Mahindra Bank
- 16 Lakshmi Vilas Bank Ltd
- 17 Nainital Bank Ltd
- 18 RBL Bank Limited
- 19 South Indian Bank Ltd
- 20 Tamilnad Mercantile Bank Ltd
- 21 Yes Bank Ltd
- 22 IDBI Bank Ltd.

D. SCHEDULED PRIVATE BANKS (FOREIGN BANKS)

- 1 AB Bank Ltd
- 2 Abu Dhabi Commercial Bank PJSC
- 3 American Express Banking Corporation

ANNEXURE-I TO SPECIAL CONDITIONS OF CONTRACT

- 4 Australia & Newzealand Banking Group Limited
- 5 Barclays Bank Plc
- 6 Bank of America
- 7 Bank of Bahrain & Kuwait B.S.C.
- 8 Bank of Ceylon
- 9 Bank of China Limited
- 10 Bank of Nova Scotia
- 11 BNP Paribas
- 12 Citi Bank NA
- 13 Cooperatieve Rabobank UA
- 14 Crédit Agricole Corporate and Investment Bank
- 15 Credit Suisse AG
- 16 CTBC Bank Co Ltd
- 17 DBS Bank India Ltd
- 18 Deutsche Bank A.G.
- 19 Doha Bank Q.P.S.C
- 20 Emirates NBD Bank (PJSC)
- 21 First Abu Dhabi Bank PJSC
- 22 FirstRand Bank Ltd
- 23 HSBC Ltd
- 24 Industrial & Commercial Bank of China Ltd
- 25 Industrial Bank of Korea
- 26 JP Morgan Chase Bank, National Association
- 27 JSC VTB Bank
- 28 KEB Hana Bank
- 29 Kookmin Bank
- 30 Krung Thai Bank Public Company Ltd
- 31 Mashreq Bank PSC
- 32 Mizuho Bank Ltd
- 33 MUFG Bank, Ltd
- 34 NatWest Markets Plc
- 35 PT Bank Maybank Indonesia TBK
- 36 Qatar National Bank (Q.P.S.C.)
- 37 Sberbank
- 38 SBM Bank (India) Ltd
- 39 Shinhan Bank
- 40 Societe Generale
- 41 Sonali Bank Ltd
- 42 Standard Chartered Bank
- 43 Sumitomo Mitsui Banking Corporation
- 44 United Overseas Bank Ltd
- 45 Westpac Banking Corporation
- 46 Woori Bank

Note - Any Addition/ Deletion/ Modification in Bank list shall be as per changes in Second Schedule List by RBI from time to time.

*** Bidder to take note of NTPC letter ref. NTPC/FC/CS/BG/01 dated 03.09.2014 and SBI letter ref. CAG-I/AMT-1/2014-15/370 dated 04.09.2014 attached herewith this Annexure-I to SCC.**

BIDDING DOCUMENT NO.: NVVN/ C&M /RE-310 /2024-25	DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP ANNEXURE-I TO SECTION -V (SCC)



एन टी पी सी लिमिटेड
(भारत सरकार का उद्यम)

NTPC Limited
(A Govt. of India Enterprise)

केन्द्रीय कार्यालय/Corporate Centre

Date : 03rd September 2014

Ref. No.: NTPC/FC/CS/BG/01

Deputy General Manager,
State Bank of India,
CAG Branch,
12 th floor, Jawahar Vyapar Bhavan, 1, Tolstoy Marg,
New Delhi 110 001

Kind Atten: Sh. Sandeep Mishra

Sub: Format of the Bank Guarantee (BG) issued by State Bank of India – reg.

Dear Sir,

NTPC Limited is India's largest Power Company and a 'Maharatna PSU' with a significant presence in the entire value chain of power generation business. The procurement process of NTPC requires its participating Bidders to submit Bank Guarantees (BGs) as Bid security/other securities in a fixed format provided by NTPC.

It has been observed recently that BGs issued by various branches of State Bank of India are inserting the following additional clause.

QUOTE

Notwithstanding anything contrary contained in any law for the time being in force or banking practice, this guarantee shall not be assignable or transferable by the beneficiary. Notice or invocation by any person such as assignee, transferee of agent of beneficiary shall not be entertained by the bank. Any invocation of guarantee can be made only by the beneficiary directly.

UNQUOTE

The inclusion of the aforesaid clause in the BGs restricts the rights of NTPC under the BG and it may not be possible for NTPC to accept the aforesaid clause in the BGs submitted to us by our Bidders. It may also be mentioned that incorporation of the above additional clause in the BG results in the BG being returned by NTPC and consequently rejection of the bids of parties that have submitted such BGs.

In view of the above, it is requested that please take up at appropriate levels so that suitable instructions are issued to all your branches not to incorporate any such additional clause and henceforth BGs may be issued strictly as per NTPC format only.

Kindly acknowledge the receipt of this letter

Yours faithfully,

(K.P.Gupta)
General Manager (Finance)

Copy for Kind information: ED(CC&M) for kind info of u.s.

एन टी पी सी भवन स्कोप कॉम्प्लेक्स, 7, इंस्टीट्यूशनल एरिया, लोधी रोड, नई दिल्ली-110003 टेल/Tel.: 24360100, फैक्स/Fax: 011-24361018
NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodhi Road, New Delhi-110003, वेबसाइट/Website: www.ntpc.co.in



भारतीय स्टेट बैंक
State Bank of India

कॉरपोरेट लेखा समूह शाखा, जवाहर व्यापार भवन,
11-12 वां तल, 1, टॉलस्टोय मार्ग, नई दिल्ली-110 001

Corporate Accounts Group Branch, Jawahar Vyapar Bhawan,
11th & 12th Floor, 1, Tolstoy Marg, New Delhi-110 001

Tel. : 23374525, 23374505, 23374541 (AMT-1), 23353022 (DGM & COO), 23701043, 23359506 (A & A), 23352995 (CS), 23352968 (IB)
Fax : 23353101 (Sectt.), 23352793 (CS), 23353029 (IB)

Shri K.P. Gupta,
General Manager (Finance),
NTPC Limited
Scope Complex, 7, Institutional Area,
Lodhi Road,
New Delhi: 110 003.

CAG-I/AMT-1/2014-15/370

04.09.2014

Dear Sir,

Format of the Bank Guarantee (BG) issued by State Bank of India

We refer to your letter dated 3rd September 2014 wherein you have requested for excluding bidders/vendors of NTPC from insertion of additional Clause restraining assignment/transferability of BG.

Looking at our relationship with NTPC, as a very special case, we have since obtained waiver from our Authorities for excluding NTPC from insertion of the referred clause for BGs issued in your favour.

We are taking steps to issue suitable instructions to our offices for exclusion of this clause for BGs issued in favour of NTPC. In case any bidder or vendor submits to you a Bank Guarantee issued by any of our Branches containing the additional clause as mentioned above, request you to please bring it to our notice and advise us so that we can take-up with the concerned Branch for excluding it.

This is for your information and necessary action please.

Yours faithfully,


(Sandeep Mishra)

Deputy General Manager &
Relationship Manager, AMT-1

CONTRACT CLOSING

CERTIFICATE NO.	CERTIFICATE DESCRIPTION	RESPONSIBILITY	LIMITING DATES FOR ISSUANCE OF CERTIFICATE@
CCP-01	Certificate of Final Amendment to the Contract	Corporate Contract Services	7 Months from #
CCP-02	Drawing Receipt Certificate	Corporate Engineering	2 Months from #
CCP-03	QA Documents Receipt Certificate	CQA&I	2 Months from #
CCP-04	O&M Manual Receipt Certificate	Corporate Engineering	4 Months from #
CCP-05	Scope Completion Certificate	Site Erection	8 Months from #
CCP-06	Liquidated Damages for Delay Certificate		
(a)	For cases where LD for delay is settled by Corporate Contracts	Corporate Contract Services	7 Months from #
(b)	For cases where LD for delay is settled by the Regions/ Site	Concerned Site/ Regional offices	7 Months from #
CCP-07	Shortfall in Equipment Performance Certificate	- Corporate OS : Site Performance Test- Cat-I - Regional OS: Site Performance Test- Cat-II - Site : Site Performance Test- Cat-III - CQA&I : Shop Test	5 Months from Performance and Guarantee (PG) Tests
CCP-08	"Material Reconciliation" Certificate	Site Erection & Site Materials Mgmt.	6 Months from #
CCP-09	"Payment Reconciliation" Certificate : Indian Contractor	Site Finance	6 Months from #
CCP-10	Certificate regarding Labour Payments and Statutory Requirements to be furnished by Contractor.	Contractor	9 Months from #
CCP-11	"No Demand Certificate" by Contractor	Contractor	6 Months from PG Tests/ \$
CCP-12	Certificate for Completion of Warranty Period	Site Erection/ O&M*	14 Months from Trial Operation/ Completion of Facilities

BIDDING DOCUMENT NO.: NVVN/ C&M /RE-310 /2024-25	DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP ANNEXURE-I TO SECTION –V (SCC)	

CERTIFICATE NO.	CERTIFICATE DESCRIPTION	RESPONSIBILITY	LIMITING DATES FOR ISSUANCE OF CERTIFICATE@
CCP-13	Certificate for Return of BGs/ Indemnity Bonds etc.	Site Finance/ Corporate Finance	All BGs except CPG: 5 Month from Trial Operation / Completion of Facilities CPG: 15 Months from Trial Operation/ Completion of Facilities

BIDDING DOCUMENT NO.: NVVN/ C&M /RE-310 /2024-25	DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP ANNEXURE-I TO SECTION –V (SCC)	

ANNEXURE-IV to SCC

F. No. DPE/7(4)/2017-Fin.
Government of India
Ministry of Finance
Department of Public Enterprises

Block No. 14, CGO Complex,
Lodi Road, New Delhi-110003
Dated the 24th February, 2023

To,

Chief Executives of all CPSEs

Subject:- Restrictions under Rule 144(xi) of the General Financial Rules
(GFRs), 2017 - regarding

Sir/Madam,

The undersigned is directed to reiterate the instructions as contained in
Department of Expenditure O.M. No. 7/10/2021-PPD(1) dated 23rd February, 2023
(copy enclosed) to all CPSEs for their information and strict compliance.

Encl : As stated


(Kailash Bhandari)
Deputy Director
Tel : 2436-6247

Copy to :- Shri Kanwalpreet, Director (PPD), Department of Expenditure, Room No.
264-C, North Block, New Delhi.

No.F.7/10/2021-PPD (1)
Government of India
Ministry of Finance
Department of Expenditure
Procurement Policy Division

264-C, North Block, New Delhi.
23.02.2023.

Order (Public Procurement No. 4)

Subject: Restrictions under Rule 144(xi) of the General Financial Rules (GFRs), 2017.

Attention is invited to Order (Public Procurement No. 1) issued vide F.6/18/2019-PPD dated 23.07.2020, Order (Public Procurement No. 2) issued vide F.6/18/2019-PPD dated 23.07.2020, Order (Public Procurement No. 3) issued vide F.6/18/2019-PPD dated 24.07.2020, Office Memorandum (OM) No. F.18/37/2020-PPD dated 08.02.2021, OM No. F.12/1/2021-PPD(Pt.) dated 02.03.2021 and OM No. F.7/10/2021-PPD dated 08.06.2021. In this regard, the following is hereby ordered under Rule 144(xi) (as amended vide OM No. F.7/10/2021-PPD dated 23.02.2023) on the grounds stated therein, in supersession to all of the above mentioned Orders/ clarifications:

Requirement of registration:

2. Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority, specified in **Annexure I**.

3. Any bidder (including an Indian bidder) who has a Specified Transfer of Technology (ToT) arrangement with an entity from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority, specified in **Annexure I**.

4. The requirement of registration for cases covered by paragraph 2 above has been applicable since 23.07.2020. The requirement of registration for bidders covered by paragraph 3 above will be applicable for all procurements where tenders are issued/ published after 01.04.2023.

5. In tenders issued after 23.07.2020 or 01.04.2023, as the case may be, the provisions of requirement of registration of bidders and of other relevant provisions of this Order shall be incorporated in the tender conditions.

Applicability:

6. Apart from Ministries/ Departments, attached and subordinate bodies, notwithstanding anything contained in Rule 1 of the GFRs 2017, the Order shall also be applicable

- a) to all Autonomous Bodies;
- b) to all public sector banks and public sector financial institutions;
- c) to all Central Public Sector Enterprises;
- d) to all procurement in Public Private Partnership projects receiving financial support from the Government or public sector enterprises/ undertakings; and
- e) Union Territories, National Capital Territory of Delhi and all agencies/ undertakings thereof.

7. This order will not be applicable for cases falling under **Annexure II**.

Definitions:

8. “*Bidder*” for the purpose of the Order (including the term ‘tenderer’, ‘consultant’ ‘vendor’ or ‘service provider’ in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency, branch or office controlled by such person, participating in a procurement process.

9. “*Tender*” for the purpose of the Order will include other forms of procurement, except where the context requires otherwise.

10. “*Transfer of Technology*” means dissemination and transfer of all forms of commercially usable knowledge such as transfer of know-how, skills, technical expertise, designs, processes and procedures, trade secrets, which enables the acquirer of such technology to perform activities using the transferred technology independently. (Matters of interpretation of this term shall be referred to the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade, and the interpretation of the Committee shall be final.)

11. “*Specified Transfer of Technology*” means a transfer of technology in the sectors and/ or technologies, specified in paragraph 15, occurring on or after 23.07.2020.

12. “*Bidder (or entity) from a country which shares a land border with India*” for the purpose of the Order means

- (a) An entity incorporated, established or registered in such a country; or
- (b) A subsidiary of an entity incorporated, established or registered in such a country; or
- (c) An entity substantially controlled through entities incorporated, established or registered in such a country; or
- (d) An entity whose beneficial owner is situated in such a country; or
- (e) An Indian (or other) agent of such an entity; or
- (f) A natural person who is a citizen of such a country; or

(g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

13. *Beneficial owner* for the purposes of Para 12 (d) will be as under:

(i) In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person(s), has a controlling ownership interest or who exercises control through other means.

Explanation:-

- a. "Controlling ownership interest" means ownership of, or entitlement to, more than twenty-five per cent of shares or capital or profits of the company;
- b. "Control" shall include the right to appoint the majority of the directors or to control the management or policy decisions, including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;

(ii) In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

(iii) In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

(iv) Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

(v) In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

14. "*Agent*" for the purpose of the Order is a person employed to do any act for another, or to represent another in dealings with third persons.

[Note:

- i. A person who procures and supplies finished goods from an entity from a country which shares a land border with India will, regardless of the nature of his legal or commercial relationship with the producer of the goods, be deemed to be an Agent for the purpose of this Order.
- ii. However, a bidder who only procures raw material, components etc. from an entity from a country which shares a land border with India and then manufactures or converts them into other goods will not be treated as an Agent.]

Sensitive Sectors/ Technologies (relevant only for the provisions on ToT arrangements):

15. (i) Certain sectors and technologies have been identified as sensitive from the national security point of view. The sectors listed in Schedule I to this Order are considered Category-I sensitive sectors. The sectors listed in Schedule II to this Order are considered Category-II sensitive sectors. The technologies listed in Schedule III are considered sensitive technologies.

(ii) For Category-I sensitive sectors, bidders with ToT arrangement in any technology with an entity from a country which shares a land border with India shall require registration.

(iii) For Category-II sensitive sectors, bidders with ToT arrangement in the sensitive technologies listed in Schedule III, with an entity from a country which shares a land border with India shall require registration.

(iv) In Category-II sensitive sectors, the Secretary (or an officer not below the rank of Joint Secretary to Government of India, so authorized by the Secretary) of the Ministry/ Department of the Government of India is empowered, after due consideration, to waive the requirement of registration for a particular item/ application or a class of items/ applications from the requirement of registration, even if included in Schedule III. The Ministry/ Department concerned shall intimate the Department for Promotion of Industry and Internal Trade (DPIIT) and National Security Council Secretariat (NSCS) of their decision to waive the requirement of registration. Ministries/ Departments of the Government of India are not required to consult the DPIIT/ NSCS before deciding and are only required to intimate the decision to DPIIT/ NSCS. If any point is raised by DPIIT/ NSCS, it should be considered in future procurements; ongoing procurement for which the waiver was granted need not be interrupted or altered.

16. Based on security considerations, a Ministry/ Department in a Category II sensitive sector or other Ministries/ Departments may recommend to DPIIT inclusion of any other technology in the list of sensitive technologies, either generally or for their Ministry/ Department.

Sub-contracting in works contracts

17. In works contracts, including turnkey contracts, contractors shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority. The definition of "contractor from a country which shares a land border with India" shall be as in paragraph 12 above. This shall not apply to sub-contracts already awarded on or before 23.07.2020.

[Note: Procurement of raw material, components, etc. does not constitute sub-contracting.]

Certificate regarding compliance

18. An undertaking shall be taken from bidders in the tender documents (**Annexure III**) that the extant guidelines for participation in the tenders (which should include conditions for implementation of this Order) have been complied with. If such certificate given by a bidder whose bid is accepted is found to be false, this would be a ground for debarment and further legal action in accordance with law.

Validity of registration

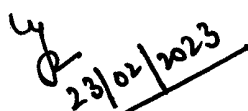
19. In respect of tenders, registration should be valid at the time of submission of bids and at the time of acceptance of bids. In respect of supply otherwise than by tender, registration should be valid at the time of placement of order. If the bidder was validly registered at the time of acceptance / placement of order, registration shall not be a relevant consideration during contract execution.

Government e-Marketplace (GeM)

20. GeM shall remove non-compliant entities from GeM unless/ until they are registered in accordance with this Order.

Model Clauses/ Certificates

21. Model Clauses and Model Certificates which may be inserted in tenders/ obtained from Bidders are given at Annexure-III. While adhering to the substance of the Order, procuring entities are free to appropriately modify the wording of these clauses based on their past experience, local needs etc.


(Kanwalpreet)
Director(PPD)

Tel.No. 2309 3811; email: kanwal.irss@gov.in

To

1. Secretaries of all Ministries/ Departments of Government of India for information and necessary action. They are also requested to inform these provisions to all procuring entities.
2. Secretary, Department of Public Enterprises with a request to immediately reiterate these orders in respect to public enterprises.
3. Secretary, Department of Financial Services with a request to immediately reiterate these orders in respect to public sector and public sector financial institutions.
4. Secretary DPIIT with a request to take action as provided under Annexure I.
5. Chief Secretaries/ Administrators of Union Territories/ National Capital Territory of Delhi.
6. CEO/ GeM with a request to ensure implementation of this order on GeM.

Schedule I

List of Category-I Sensitive sectors:

Sr.No.	Sector
(i)	Atomic Energy
(ii)	Broadcasting/ Print and Digital Media
(iii)	Defence
(iv)	Space
(v)	Telecommunications

Schedule II**List of Category-II Sensitive sectors:**

Sr.No.	Sector
(i)	Power and Energy (including exploration/ generation/ transmission/ distribution/ pipeline)
(ii)	Banking and Finance including Insurance
(iii)	Civil Aviation
(iv)	Construction of ports and dams & river valley projects
(v)	Electronics and Microelectronics
(vi)	Meteorology and Ocean Observation
(vii)	Mining and extraction (including deep sea projects)
(viii)	Railways
(ix)	Pharmaceuticals & Medical Devices
(x)	Agriculture
(xi)	Health
(xii)	Urban Transportation

List of Sensitive Technologies:

Sr.No.	Sensitive Technologies
(i)	Additive Manufacturing (e.g. 3D Printing)
(ii)	Any equipment having electronic programmable components or autonomous systems (e.g. SCADA systems)
(iii)	Any technology used for uploading and streaming of data including broadcasting, satellite communication etc.
(iv)	Chemical Technologies
(v)	Biotechnologies including Genetic Engineering and Biological Technologies
(vi)	Information and Communication Technologies
(vii)	Software

Competent Authority and Procedure for Registration

- A. The Competent Authority for the purpose of registration under this order shall be/ continue to be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT)*. [This Committee was already constituted under Order (Public Procurement) No.1].
- B. The Registration Committee shall have the following members*:
- i. An officer, not below the rank of Joint Secretary, designated for this purpose by DPIIT, who shall be the Chairman;
 - ii. Officers (ordinarily not below the rank of Joint Secretary) representing the Ministry of Home Affairs, Ministry of External Affairs, and of those Departments whose sectors are covered by applications under consideration;
 - iii. Any other officer whose presence is deemed necessary by the Chairman of the Committee.
 - iv. With effect from 01.04.2023, an officer (ordinarily not below the rank of Joint Secretary) representing the National Security Council Secretariat.
- C. DPIIT shall lay down the method of application, format etc. for such bidders as covered by the Order.
- D. On receipt of an application seeking registration from a bidder covered by Para 2 and 3 of this order, the Competent Authority shall first seek political and security clearances from the Ministry of External Affairs and Ministry of Home Affairs, as per guidelines issued from time to time. Registration shall not be given unless political and security clearance have both been received.
- E. The Ministry of External Affairs and Ministry of Home Affairs may issue guidelines for internal use regarding the procedure for scrutiny of such applications by them.
- F. The decision of the Competent Authority, to register such bidder may be for all kinds of tenders or for a specified type(s) of goods or services, and may be for a specified or unspecified duration of time, as deemed fit. The decision of the Competent Authority shall be final.
- G. Registration granted by the Competent Authority of the Government of India shall be valid not only for procurement by the Central Government and its bodies specified in para 6 of this order, but also for procurement by State Governments and their agencies/ public enterprises etc. No fresh registration at the State level shall be required.
- H. The Competent Authority is empowered to cancel the registration already granted if it determines that there is sufficient cause. Such cancellation by itself, however, will

not affect the execution of contracts already awarded. Pending cancellation, it may also suspend the registration of a bidder, and the bidder shall not be eligible to bid in any further tenders during the period of suspension.

- I. For national security reasons, the Competent Authority shall not be required to give reasons for rejection/cancellation of registration of a bidder.

[*Note:

(i) In respect of application of the Order to procurement by/ under State Governments, all functions assigned to DPIIT shall be carried out by the State Government concerned through a specific department or authority designated by it. The composition of the Registration Committee shall be as decided by the State Government. However, the requirement of political and security clearance as per para D shall remain and no registration shall be granted without such clearance.

(ii) Registration granted by State Governments shall be valid only for procurement by the State Government and its agencies/ public enterprises etc. and shall not be valid for procurement in other states or by the Government of India and their agencies/ public enterprises etc.]

Special Cases

- A. In projects which receive international funding with the approval of the Department of Economic Affairs (DEA), Ministry of Finance, the procurement guidelines applicable to the project shall normally be followed, notwithstanding anything contained in this order and without reference to the Competent Authority. Exceptions to this shall be decided in consultation with DEA.
- B. This order shall not apply to procurement by Indian missions and by offices of government agencies/ undertakings located outside India.
- C. This order will not apply to bidders (or entities) 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. Updated lists of countries to which lines of credit have been extended or in which development projects are undertaken are given on the website of the Ministry of External Affairs.
- D. Procurement of spare parts and other essential service support like Annual Maintenance Contract (AMC)/ Comprehensive Maintenance Contract (CMC), including consumables for closed systems, from Original Equipment Manufacturers (OEMs) or their authorized agents, shall be exempted from the requirement of registration.

Model Clause/ Certificate/ Undertaking to be inserted in tenders etc.

[While adhering to the substance of the Order, procuring entities and GeM are free to appropriately modify the wording of the clause/ certificate based on their past experience, local needs etc.

The conditions relating to specified ToT (as shown in italics) should be incorporated only in the tenders which attract the restrictions due to specified ToT.]

A. Model Clauses for Tenders (including tenders issued manually or any electronic portal including GeM):

I. Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority. *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, shall also require to be registered with the same competent authority.*

II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

III. "Bidder (or entity) from a country which shares a land border with India" for the purpose of this Order means: -

- (a) An entity incorporated, established or registered in such a country; or
- (b) A subsidiary of an entity incorporated, established or registered in such a country; or
- (c) An entity substantially controlled through entities incorporated, established or registered in such a country; or
- (d) An entity whose beneficial owner is situated in such a country; or
- (e) An Indian (or other) agent of such an entity; or
- (f) A natural person who is a citizen of such a country; or
- (g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

IV. The beneficial owner for the purpose of (iii) above will be as under:

1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation—

a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;

b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;

2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

VI. [To be inserted in tenders for Works contracts, including Turnkey contracts] The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

VII. The registration shall be valid at the time of submission of bid and at the time of acceptance of bid.

VIII. If the bidder was validly registered at the time of acceptance / placement of order, registration shall not be a relevant consideration during contract execution

Model Certificate for Tenders:

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

Model Certificate for Tenders for Works involving possibility of sub-contracting:

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any

work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

Model additional certificate by Bidders in the cases of specified ToT:

"I have read the clause regarding restrictions on procurement from a bidder having Transfer of Technology (ToT) arrangement. I certify that this bidder does not have any ToT arrangement requiring registration with the competent authority."

OR

"I have read the clause regarding restrictions on procurement from a bidder having Transfer of Technology (ToT) arrangement. I certify that this bidder has valid registration to participate in this procurement."

B. Model Certificate for GeM (to be taken by the GeM from seller during registration on GeM. GeM should also obtain this certificate from all existing bidders as soon as possible):

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this vendor/ bidder is not from such a country and does not have any specified Transfer of Technology (ToT) from such a country or, if from such a country or if having specified ToT from such a country has been registered with the Competent Authority. I hereby certify that this vendor/ bidder fulfills all requirements in this regard and is eligible to be considered for procurement on GeM. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

No.F.20/33/2022-PPD
Government of India
Ministry of Finance
Department of Expenditure
Procurement Policy Division

513, Lok Nayak Bhavan,
Khan Market, New Delhi,
25.05.2023

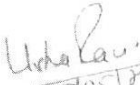
OFFICE MEMORANDUM

Subject: Exemption for sourcing of Solar PV Modules from the provisions contained in the Department of Expenditure's Orders regarding restriction under Rule 144 (xi) of General Financial Rules, 2017-reg.

The undersigned is directed to refer Ministry of New & Renewable Energy (MNRE) OM No. 283/60/2020-GRID SOLAR-Part(3) dated 22.05.2023 vide which MNRE has requested for inclusion of Solar PV Modules in the list of items mentioned in DoE's OM of even number dated 04.08.2022. (copy enclosed)

2. In this context, it has now been decided that procurement of Solar PV Modules by Central Public Sector Enterprises (CPSEs), required for their business activities involving setting up of renewable energy projects, has also been exempted from the provisions of Department of Expenditure's OM No. 6/18/2020-PPD dated 23.07.2020 under Rule 144 (xi) of the GFRs, 2017 (amended vide OM No. 07/10/2021-PPD(1) dated 23.02.2023), upto 31.12.2024.

3. This is issued with the approval of Finance Secretary.


25/05/2023
(Usha Rani)

Under Secretary(Procurement Policy)
Tel.24621304
email: usha.rani64@gov.in

To

Sh. Bhupinder Singh Bhalla,
Secretary,
Ministry of New & Renewable Energy,
Room No.102, Block No.14, C.G.O. Complex,
Lodhi Road, New Delhi - 110 003.
Tel.: 24361481, 24362772; email: secy-mnre@nic.in

Copy to: Secretary Department of Public Enterprises with a request to reiterate the above instructions to CPSEs.

No F 20/33/2022-PPD
Government of India
Ministry of Finance
Department of Expenditure
Procurement Policy Division

264-C, North Block, New Delhi.
4th August, 2022.

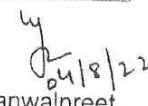
OFFICE MEMORANDUM

Subject: Granting of exemption from the applicability of Department of Expenditure (DoE) OM No. 6/18/2019-PPD dated 23.07.2020 w.r.t. restriction under Rule 144 (xi) of General Financial Rules (GFRs), 2017.

The undersigned is directed to refer Ministry of New & Renewable Energy (MNRE) OM F.No.283/60/2020-GRID SOLAR-Part(3) dated 25.07.2022 and to the deliberations of the Committee of Secretaries, and to convey that it has been decided to grant exemption to Central Public Sector Enterprises (CPSEs) from the provisions of Department of Expenditure's OM No. 6/18/2020-PPD dated 23.07.2020 under Rule 144 (xi) of the GFRs, 2017, upto 31.12.2024, for the following items, required for their business activities involving setting up of renewable energy projects:

SN	Items
1.	Solar PV Cells, Glass, Wafers, EVA, Backsheet, Frames.
2.	Inverters
3.	Trackers
4.	Battery Energy Storage System Components [Cells, Battery Packs, Power Conditioning System]

2. This is issued with the approval of competent authority.


Kanwalpreet
Director (Procurement Policy)
Tel.: 23093811
email: kanwal.irss@gov.in

To
Shri Indu Shekhar Chaturvedi, Secretary,
Ministry of New & Renewable Energy,
Room No.102, Block No.14, C.G.O. Complex, Lodhi Road,
New Delhi - 110 003.
Tel.: 24361481, 24362772; email: secy-mnre@nic.in

SCOPE OF WORK AND TECHNICAL SPECIFICATIONS



NTPC Vidyut Vyapar Nigam Limited
(A wholly owned subsidiary of NTPC Ltd.)

Index

Sl. No.	Description	Reference
1.	Project Specific details	Annexure-A
2.	Location & site details	Annexure-A1
3.	Scope of work	Schedule-A
4.	O&M Guidelines	Schedule-B
5.	Technical specifications	Schedule-C
6.	PERFORMANCE GUARANTEE TESTs	Schedule-D
7.	Quality Certification, Standards and Testing for Grid-Connected Solar PV Systems/Power Plants	Appendix-1
8.	Sample Project Completion Report for Grid-Connected Rooftop	Appendix-2
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PART-A

SCOPE OF WORK AND TECHNICAL SPECIFICATIONS



NTPC Vidyut Vyapar Nigam Limited
(A wholly owned subsidiary of NTPC
Ltd.)

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PART-A

Annexure-A

Particulars	Description
Capacity of Rooftop/Ground Mounted	Roof Top Solar Capacity is 13.511 MWac and Ground Mounted Solar Capacity is 3.980 MWac as mentioned in Annexure 1
Commissioning	Commissioning of the system shall refer to the date on which the System at each location / premise starts generating electric energy for Five continuous (05) hours using instruments and meters including Net metering/ net billing/behind the meter (in case of NEEPCO Generating Stations the commissioning of the system shall refer to the date on which the System at each location / premise starts generating electric energy for Five continuous (05) hours using instruments and meters including replacement of existing energy meters with bi directional meters).
Contract period for Completion of facilities	08 Months
O&M Period	10 Years from the date of Completion of Facilities. However, as per NVVN requirement, the O&M period may be reduced, and the payment shall be given up to O&M period only.
Location/Site Details	
Location(s)	Refer Annexure-A1 hereafter
Electrical Interconnection Details	
Evacuation Voltage	As per State solar policy/SERC/DERC/Discom
Power for Construction	Construction power will be provided at one point of each location. Necessary arrangement including cabling, metering, etc. to draw power at required locations shall be done by bidder within the quoted price. The energy consumed shall be chargeable as per discom rates/ Cost of Generation at NEEPCO generating stations.
Water	Water shall be provided free of cost for construction and periodical cleaning of modules at one point of each location. Additional connection points may also be allowed subject to feasibility. However necessary arrangement including pipe laying, pumping, metering, etc. to draw water at required locations shall be done by bidder within the quoted price.
Access to Roofs	Bidder has to make permanent MS ladders at buildings wherever access to the Rooftops is not available
Requirement of Site survey	Not mandatory
Supply of mandatory/Recommended spares	Nil
Time schedule	As mentioned in Technical Specification
Deviation limit	-/+ 25%
Performance Parameters / Guarantees	
Minimum values of PR	75%.
GHI Values	Shall be as per PV Syst Software 7.4.5 version or latest version using Meteonorm 8.1 data.

Calculation of penalty in case of Shortfall of PR	In case of shortfall in PR, tariff factor is ₹ 6.00 /kWh and shall be calculated as stated at sl. No i in schedule -D.
calculation of penalty in case of shortfall of equipment performance during O&M period	In case of shortfall in annual CUF, tariff factor is ₹ 6.00 /kWh and shall be calculated as stated at sl. No ii in schedule -D.
Special conditions	The capacity at a location has been arrived based on preliminary assessment of data received from customers and shall be allocated to the vendor. However, if the capacity range changes during detailed engineering, then also same rate for the allocated capacity range shall be applicable.
	In case total O&M Cost for 10 years is less than 13.5% of EPC Price (Supply, transportation and Installation service (including Civil and Safety), the difference shall be retained from payment under Schedule 1 and 10% of it shall be released every year.
	In case, total Cost for Installation Services (A) and Civil and Allied Services (B) is less than 10% of Schedule-1 Price for Roof Top Solar Projects, the shortfall shall be retained from payment under Schedule -1 and shall be released upon completion of facility.
	In case, total Cost for Installation Services (A) and Civil and Allied Services (B) is less than 20% of Schedule-1 Price for Ground Mounted Solar Projects, the shortfall shall be retained from payment under Schedule -1 and shall be released upon completion of facility.
	In case, cost for the Transportation including the Transit Insurance (schedule 2) is above 4% of the ex-works price of main equipment (Schedule-1), the amount by which it is higher shall be retained and shall be paid upon Commissioning of the Premise.
	Remote Metering Facility to be provided as per Technical Specifications.
	The Bidder shall take Fire and peril insurance policy from the reputed/nationalised agency covering the risk of damage, theft of material/ equipment/ properties after completion of the work(s) throughout the O&M period on replacement cost basis.
	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.
Any query	Bidders are advised to visit the site and collect all necessary information required for installation of solar PV plants, before submission of their bids. No additional claim shall be entertained in this regard. For site visit Pl. coordination, the below mentioned: Sh. Sanjay Singh Email: sanjaysinghnvvn@ntpc.co.in Mob:+91-7982255096

ANNEXURE-A1

Minimum DC/AC ratio shall be 1.1:1 for Roof Top Solar PV Projects and Minimum Desired Annual CUF shall be 15%. For Ground Mounted Solar PV Projects, the Minimum DC/AC ratio shall be 1.3:1 and Minimum Annual Desired CUF shall be 19%. Further the bidder is free to install extra DC Capacity to achieve Annual Desired CUF.

Name Of Department	Location	State / UT	Sanctioned Load (kVA)	Tentative shadow free Roof Top area in sq. m2	No. of Buildings	Tentative Final feasible Capacity in Kw	Name of Nodal Officer/Contact Number	Ground Mounted Solar PV Project (in MW)
NEEPCO	AgGBPS, R.C. Nagar, Agartala	Tripura	N/A	10368	70	1226	Nirup Sarma ,70053715629435339716	500
NEEPCO	101 MW Tripura Gas Based Power Station, Monarchak	Tripura	N/A	17500	22	778	Pankaj Datta Choudhury, 9862585337	700
NEEPCO	291 MW, Assam Gas Based Power Station, AG BPS, Bokuloni, Dist: Dibrugarh (Assam)	Assam	N/A	5923	3	725	Jayanta Deka, 9859372294	
BSF	SHQ BSF Camp Gokulnagar ,PO- Bishalgarh, Distt- Sepahijala, Tripura- 799102	TRIPURA	200	2263	4	650	Sh Kuldeep , Asstt Comdt(Elect), kuldeep_hoon@yahoo.com, 8386951441	
CRPF	GC, CRPF, Langjing, imphal, manipur, 795113	Manipur	1250	4943	Residential Buildings	618	Shri Madan kumar DIG Email- diggcimp@crpf.gov.in	
BSF	COMMANDANT 200 BN BSF, Dhanakgre, Tura	Meghalaya	100	3233	6	411	Sh. Rajesh Ahirwar, AC (Elect)M/ No. 9783366759, Mail : rajeshaaee17@bsf.ni	

							c.in	
BSF	19 BN BSF ALAMGAN J	Assam	500	11216	49	400	DC,19 BN BSF MOB NO.94355 45936	
BSF	BSF Campus Nalkata, N/Tripura, Manu.	TRIPURA	120	3395	7	400	Kuldeep Singh , Dy Comman dant , comdt179 @bsf.nic.i n 95328357 27	
BSF	Commanda nt,109 Bn BSF	TRIPURA	200	3979	10	357	Sh Dinesh Kumar, 2IC (Adm) , Comdt10 9@bsf.nic .in 94104116 39	
NEEPC O	DHPS, NEEPCO, Doyang 350	Nagaland	N/A	2800	7	350	S. Patton, 70055226 02	
BSF	FTR HQ BSF Salbagan, Distt- West Tripura, Tripura - 799012	TRIPURA	650	8881	10	339	Sh Sunil Kumar Singh, Deputy Comman dant (Electrical) , sunilkuma rsinghbsf 172@gm ail.com, 70234279 81	
NEEPC O	Panyor Lower Hydro Power Station, Yazali, Dist: Keel Panyor, Power House at Hoj, Dist Papum Pare	Arunachal Pradesh	N/A	2471	15	309	Munin Choudhur y, 94353397 77	

BSF	DIG Sector Headquarters Udaipur(Bagma) , Post-Khupilong, Distt-Gomati, State - Tripura Pin-799114	TRIPURA	150	880	02 Nos	300	Sh: Vikas Sheoran, Dy commandant ,shqupr@bsf.nic.in, 03821271531	
SSB	Rangia	Assam	400 KVA	3992.12	8	288	Sh. S. Banik, AE. 9101632997	
CRPF	The Digp,GC,C RPF,Dayapur,Udharband,Cachar,Silchar,AS SAM,pin-788030	Assam	850	40541	97	280	SH.Shahnawaz khan DIGP,mob-9435506773,9401141729.E-mail-gcccrpfslr@gmail.com	
CRPF	O/O DIGP,Group center CRPF,Adarani tea Estate Tripura,Agartala799012	Tripura	1200	3860	16	279	SH Mohd Imran Mallick DIG 9485025644 E-mail - digpgcagt535@gmail.com	
ITBP	Kimin	Arunachal Pradesh	630	3950	8	260	Comdt. 10th Bn, ITBP 7006095732	
BSF	BN HQ, 100 BnBewagre (Tura) Meghalaya	Meghalaya	190	2128	4	250	Sh. Rajiv Singh AC (Elect) M/No. 8320811937, Mail : raj070.rajiv@gmail.com	
SSB	15th Bn Kajalgaon	Assam	281	6173	23	225		
SSB	SHQ, SSB Bongaigaon	Assam	250	2087.3	2	200		
BSF	ADP Geetanagar , Mother Taresa Road, Guwahati. Assam - 781021	Assam	150 KVA	206	2	200	Sh. R D Singh, AC (Elect), M/No. 7042980185, Mail : singh4964@bsf.nic	

							.in	
BSF	43 Bn BSF SHQ BSF Camp Gokulnagar ,PO- Bishalgarh, Distt- Sepahijala, Tripura- 799102	TRIPURA	60	658	1	200	Sh Kuldeep , Asstt Comdt(El ect), kuldeep_ hoon@ya hoo.com, 83869514 41	
BSF	SHQ BSF Mawpat, Shillong	Meghalay a	500	3291	4	190	Sh. Rajesh Ahirwar, AC (Elect), M/No. 97833667 59, Mail : rajshaee 17@bsf.ni c.in	
SSB	6th 8n, SSB, Raniguli (Kokrajhar)	Assam	237	7740.00.	39	190		
CRPF	O/O the Igp Tripura sector HQ ,CRPF,ush abazar,agg artala,west tripura	Tripura	200	1439	10	180	Shri R Duidang DIG(Prov & Accts) 0381- 2955064 E-mail- tpashqs@ crpf.gov.i n	
BSF	192 Bn BSF,,Amba ssa, Distt- Dhalai (Tripura)	TRIPURA	339	2775	6	175	Naresh Kumar Sharma, 2IC (Ops) , nareshsh arma1974 @bsf.nic.i n 75840975 29	
BSF	38 Bn BSF, Sakawrtuic hhun, Aizawl ,Mizoram	Mizoram	60	720	12	169	Sh. Indresh Kumar Yadav, 2IC Mob No. 96503503 36 E-mail ID- comdt38b nbsf@yah oo.co.in	

SSB	1st Bn, SSB Sonapur	Assam	363	1310	4	164		
CRPF	HQR-30 BN CRPF,CHARIDUAR,SONTPUR,ASSAM	Assam	202.35	2279	7	162	T.BHAGAD SINGH(D/C) mob-8638174939/9531205243, E-mail-30bn@crpf.gov.in	
SSB	54th Bn Bijni	Assam	200	2530	17	160		
BSF	29 BN BSF, KOIRENGE I, IMPHAL, MANIPUR PIN-795002	MANIPUR	187.75 KVA	3774	4	159	SH K S PILANIA MOB NO. 8079028545, MAIL ID- kamalpilania@gmail.com	
BSF	HQ 104 BN BSF, Khasimangal PO-Teliamura, Distt-Khowai (Tripura), Pin Code-799205	TRIPURA	480	9078	14	150	Neeraj Singh Jamwal, Commandant, comdt104@bsf.nic.in 9436460537	
BSF	31 BN BS PANBARI, DHUBRI ASSAM-783339	Assam	178	6254	6	142	SH K N THAKUR DC. 31 B BSF MOB-8787622763 EMAIL-kavindranath407@bsf.nic.in	
ITBP	Itanagr	Arunachal Pradesh	141.18	18742.99	32	141	Sh. Deepak Sandhuja, Dig(Engr) 9868100064	
ITBP	Tezu	Arunachal Pradesh	132	2640	11	132	Comdt. 25th Bn ITBP 9074969498	
SSB	Salonibari	Assam	263 KVA	696867	9	118	Sh.Paveen Kumar, 21C 9006403385	

BSF	Commandant 96 Bn BSF , Bagafa Campus PO Santir Bazar, Tripura (South) Pin-799144	TRIPURA	500	2852	7	110	Sh: Rashpal Singh , 2IC(Adm), Comdt96 bn@gmail .com, 94397366 35	
ITBP	Lohitpur	Arunachal Pradesh	100	2755.5	10	100	Comdt. ATS 78954250 79	
BSF	Ftr HQ BSF M&C Masimpur, Silchar	Assam	350	1274	2	100	Sh. Abhishek Gupta Assistant command ant(Elect)/ AE, 79870392 82, E-Mail ID- abhishekg uptabsf@ gmail.com	
SSB	Tezpur	Assam	315 KVA	732	15	92	Jitender Konwar 78962560 98	
ITBP	Dibrugarh	Assam	250	1426.9	13	91	Dy. Insp General, SH(Dibru garh) 96347601 03	
SSB	Sonapur (Guwahati)	Assam	500 KVA	700	1	88	Sh. T.J Singh, EE. 81023493 67	
ITBP	Dhirang	Arunachal Pradesh	82.35	11054.24	23	82	Comdt. 4th Bn, ITBP 98977379 27	
NEEPC O	Kameng Hydro Power Station 81, Kimi, Arunachal Pradesh	Arunachal Pradesh	N/A	0	0	0	Harihar Medhi, 70052457 80	
SSB	31st Bn Gossaigao n, (Kokrajhar)	Assam	100	4673.00.	6	80	—	
ITBP	Lohitpur	Arunachal Pradesh	150	1440	25	73	Comdt. 9th Bn, ITBP 78954250 79	
SSB	Derang	Arunachal Pradesh	70 KW	820	2	70	Sh.Ajay Kumar Sinha ,	

							Dy comdt 72982411 08	
ITBP	Aalo	Arunachal Pradesh	70	2100	26	70	Comdt. 20th, Bn ITBP 70049702 44	
BSF	SHQ BSF Camp Khasiaman gal Teliamura	TRIPURA	150	1621	2	68	Sh V P Singh, Asstt Comdt(El ect), vpeesingh @gmail.c om, 94646658 97	
ITBP	Basa	Arunachal Pradesh	65	3150	7	65	Comdt. 49th Bn ITBP 94588030 41	
SSB	Debendra nagar (Tezpur)	Assam	130 Kw	2113	5	65	Sh.Rajes h Kumar Gupta Comdt 98756770 51	
SSB	54th Bn Howly	Assam	81	2488.17	15	65		
BSF	170 Bn BSF Dholchera	Assam	20	216	1	64	OP Saklani, CO(2IC), 75480273 77, omprakas h104@bsf .nic.in	
BSF	CHEDEMA, KOHIMA,N AGALAND	NAGALA ND	65	900	2	64	SH. SP SINGH ,DC ,MOB NO.03702 280931, MAIL ID- Comdt03 7@bsf.nic .in	
NEEPC O	Corporate office building, NEEPCO, Shillong.	Meghalay a	500 KVA	500	1	63	Hemen Das,9436 118115	
BSF	16 Bn BSF Patharkand i Karimganj	Assam	80	3009	2	60	Arun Kr Sharma, CO(DC), 94637258 79, comdt016 @bsf.nic.i n	
ITBP	Yupia	Arunachal Pradesh	59.06	3978	10	59	Comdt. 30th Bn ITBP 85913453 50	

CRPF	143 BNCRPF, Lamphelpat, Imphal West, Manipur, pin-795004	Manipur	69	3715	Residential	53	Shri Lalkhokam Lhoujem, Commandant no.94360 34670 E-mail- col43bn@crpf.gov.in	
RGI	DCO, Assam	Assam	264.7	610		51	DR. NIJORA SHARMA 9859132060 7002216391	
SSB	Tawang	Arunachal Pradesh	50 KW	2114	1	50	Bhupender singh Assistant Comdt (comn) 9821951257	
BSF	134 Bn BSF Masimpur	Assam	80	2172	4	47	Kailash Singh Negi, CO(2IC) comdt134@bsf.nic.in	
ITBP	Lingdum	Sikkim	600	357	6	45	Sh. D.K Bhateria Comdt. 9716004338	
ITBP	Gangtok	Sikkim	600	357	6	45	Sh. Sunil Kumar DIG 875544440	
SSB	Geyzing Sikkim	Sikkim	25 KVA Commercial and 63 KVA Domestic	4723	28	40	Sh.Ajit Mohan Comdt 9752882975	
BSF	163 BN BSF Dawngzawl, Serchhip (Mizoram)	Mizoram	100	912	4	38	Sh Amar Singh Narwal, 2IC Mob - 8199002157 Email - 163bnbsf@gmail.com	
BSF	BN HQ 50 BN BSF Prahari Nagar	Meghalaya	250	3850	6	37	Sh. Rajiv Singh AC (Elect), M/No. 83208119 37, Mail : raj070.raj	

							v@gmail.co	
BSF	SHQ BSF Aizawl Durthlang North	Mizoram	85	2553	5	30	Sh Pramod Kumar Chauhan, Comdt (Adm) Mob : 96825600 46	
ITBP	Kimin	Arunachal Pradesh	340	2600	25	30	Sh. Tej Bahadur AC(Engr) 70060957 32	
CRPF	CIAT SCHOOL CRPF ,SILCHAR	Assam	189 kw	—	Semi permanen t Huts	29	Shri Rahul Bharadwa j,Assistant Comman dant m no.96825 8118 mailid- bldgciatisl r@gmail.c om	
BSF	04 BN BSF, Mawpat, Shillong	Meghalay a	250	183	3	26	Sh. Arvind Singh Tolia, AC (Elect)	
RGI	DCO, Manipur	Manipur	25	0	1	25	- -	
RGI	DCO, Nagaland	Nagaland	398	165	1	25	Viyovol Chaya 96121602 20	
ITBP	Ziro	Arunachal Pradesh	23.5	578	11	24	Comdt. 60th Bn ITBP 70237576 72	
BSF	SHQ BSF Tura & 181 BN HQ, Dobasipara , West Grao Hills	Meghalay a	250	3133	5	23	Sh. Rajiv Singh AC (Elect), M/No. 83208119 37, Mail : raj070.raji v@gmail. com	
BSF	139 BN BSF , Sephenjuri, Karimganj (Assam)	Assam	200	2398	3	20	Sanjay Singhania , Dy Comman dant , Comdt13 9@bsf.nic .in 96540466 69	

RG1	DCO, Mizoram	Mizoram	53.5	100	1	20	Sandip Kumar Panja 03892336 844/ 97485133 59	
ITBP	Likhabali	Arunachal Pradesh	19	1000	1	19	2(LKBL) 8517926500	
BSF	BSF Campus Panisagar, N/Tripura, Dharmanag ar	TRIPURA	400	3491	8	16	Bhakt Darshan Shah, 2IC Comdt19 9@bsf.nic .in 76021060 04	
CEA	NERPC, Dong Madan, Lapalang, East Khasi Hills, Shillong, Meghalaya 793006	Meghalay a	60.35	100	1	13	Sh. Abhijeet Agrawal, 98712669 51	
NEEPC O	Pare Hydro Power Station (110 MW), Arunachal Pradesh	Arunachal Pradesh	N/A	N/A	N/A	0	Hari Shankar Nath, 84130692 25	2780

S. No.	Activities/Milestones for Solar Plants	Period from Issuance of LoA (Days)	
		Start	Finish
1.	Site Mobilization, Site office opening & Preparatory works	0	30
2.	Basic Engineering and approval from NVVN - Solar plant Layout - MMS design - SLD - Data sheet - Modules, Inverters and Transformers (if required) - Safety plan	20	40
3.	Detailed Engineering and Approval from NVVN	40	50
4.	Approvals for connectivity	0	60
Solar Plant Works –DC Side			
5.	Supply of Module Mounting Structures	60	80
6.	Foundations & Installation of Module Mounting Structures	80	110
7.	Supply of SPV Modules	70	100
8.	Installation of SPV Modules	90	120
9.	Supply of DC Cables	70	100
10.	Laying of DC Cables	100	120
Solar Plant Works –AC Side			
11.	Supply of inverters	80	110
12.	Installation of inverters	120	135
13.	Supply of AC cables	80	110
14.	Installation of AC cables	125	150
15.	Supply of transformer (If required) & other electrical equipment	90	120
16.	Installation of transformer (If required) & other electrical equipment	150	170
Miscellaneous works			
17.	Supply of miscellaneous items viz. Lightning arrestor, Earthing system, Remote monitoring system, Module washing system, etc.	120	150
18.	Erection of miscellaneous items viz. Lightning arrestor, Earthing system, Remote monitoring system, Module washing system, etc.	150	170
19.	Testing of Equipment and Readiness of System	170	180
Commissioning and Completion of Facilities			
20.	Metering & Commissioning of the system	180	210
21.	Trial Run, PG test and Completion of Facilities	210	240

SCHEDULE A

1. SCOPE OF WORK

The Solar Photo Voltaic (PV) installation on Rooftop of various/multiple buildings and Ground Mounted Solar Projects to be installed of various government agencies in the States of Tripura, Assam, Arunachal Pradesh, Mizoram, Meghalaya, Manipal Nagaland as mentioned in Annexure-A of Section-VI. Further any other Government Buildings/Areas in these states may be given for installation of Solar Plants and it shall be carried out in such a way that the generation is maximized on each building suitable for installation of Solar PV power plants. The tentative Roof Top Solar Capacity is 13.511 MW and Ground Mounted Solar PV Project is 3.98 MW. 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.

- C. 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.
- D. 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.
- E. 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. The bidder shall be responsible for commissioning the project along with Net metering/Net Billing/ Group Net Metering/Behind the meter as per State Regulations.
- F. Commissioning of the system shall refer to the date on which the System at each location / premise starts generating electric energy for Five continuous (05) hours using instruments and meters including Net metering/ net billing/behind the meter (in case of NEEPCO Generating Stations the commissioning of the system shall refer to the date on which the System at each location / premise starts generating electric energy for Five continuous (05) hours using instruments and meters including replacement of existing energy meters with bi directional meters)
- G. 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.
- H. Bidder also to provide comprehensive Operation and Maintenance (O&M) of the plants for a period of 10 years from the date of Completion of Facilities. "Completion of Facilities" means that the Facilities at all the premises under the contract have been successfully commissioned and put in a tight and clean condition, and that all work in respect of scope of work has been completed and punch points attended; and Commissioning of all Premises/ locations including PG test under the Contract has been attained as per Technical Specifications.
- I. 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 at evacuation point/delivery point 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.
- J. Bidder shall ensure that Project is Remote Monitoring System ("RMS") enabled. Bidder shall also provide API for the RMS system and shall be used for billing and monitoring. The data from such RMS enabled Projects would be monitored or analyzed remotely by NVVN and Procurer. 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 an open protocol basis with external data loggers as may be installed by NVVN or Procurer. The Bidder shall ensure that the connectivity of the Project RMS with the Procurer and NVVN office is always uninterrupted during O&M period and shall make all necessary arrangements for the same. Procurer 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.

- K. 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.
- L. Any fee related to registration of project / NOC / net metering/group net metering/Behind the meter/Net Billing from any of the state departments shall be borne by the bidder.
- M. 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.
- N. Life-Line: The bidder shall provide suitable lifeline arrangement on the roof as per requirement, to enable the 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 NVVN as mentioned in Bid Document. All safety PPEs like safety shoes, helmet, belt, lifeline, fall arrester etc. are to be provided by the bidder within the quoted price.
- O. 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.
- P. Walkway: As per site requirement, the bidder must install and maintain G.I. walkway with anti-skid holes on the roof with toe guard 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 damage to roof sheet can be avoided.
- Q. 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.
- R. 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.
- S. 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. The insurance shall be for the replacement value of the project to ensure guaranteed minimum generation.
- T. 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 some of the items as stated in schedule C. 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.

2. **PROJECT INSPECTION**

The project progress will be monitored by NVVN and the projects will be inspected for quality at any time during erection, commissioning or after the completion of the project either by officer(s) from NVVN or any agency/ experts designated / authorised by NVVN from time to time. NVVN shall depute a technical person(s) from its list of empaneled experts/ agencies updated from time to time for inspection, Third party verification, monitoring of system installed to oversee, the implementation as per required standards and also to visit the manufacturer's facilities to check the quality of products as well as to visit the system integrators to assess their technical capabilities as and when required. The cost of Inspection to be carried out by NVVN shall be borne by NVVN. The cost of re-inspection, if any shall be borne by Bidder. The projects shall be inspected at any time during erection, commissioning or after the completion of the project.

SCHEDULE-B

OPERATION & MAINTENANCE (O & M) GUIDELINES TO BE MANDATORILY FOLLOWED BY BIDDERS

- 1) The bidder shall be responsible for all the required activities for successful operation and maintenance of the Rooftop Solar PV system for a period of 10 years from the date of Completion of Facilities of the entire package.
- 2) O&M of Solar Power Plant shall be compliant with grid requirements to achieve committed energy generation.
- 3) Deputation of qualified and experienced engineer/ technicians throughout the O&M period at project site.
- 4) The modules shall be cleaned with a periodic interval of 15 days or earlier as per actual site conditions.
- 5) Periodic checks of the Modules, PCUs and BoS shall be carried out as a part of routine preventive and breakdown maintenance.
- 6) Immediate replacement of defective Modules, Invertors/PCUs and other equipment as and when required. Supply of all spares, consumables and fixtures as required. Such stock shall be maintained for equipment and materials as per the manufacturer's / supplier's recommendations.
- 7) All the testing and metering instruments required for Testing, Commissioning and O&M shall be calibrated or have valid calibration certificate.
- 8) 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.
- 9) Co-ordination with owner / DISCOM / CEIG as per the requirement for Joint Metering Report (JMR). The bidder's site representative shall take a joint meter reading in the presence of rooftop owner monthly. The bidder shall furnish the previous month's generation data (JMR) to NVVN positively by 1st week of every month.
- 10) Online Performance Monitoring, controlling, troubleshooting, maintaining logs & records. A maintenance record register is to be maintained by the operator with effect from Commissioning to record the regular maintenance work carried out as well as any preventive and breakdown maintenance along with the date of maintenance, reasons for the breakdown, duration of the breakdown, steps taken to attend the breakdown, etc.
- 11) The bidder shall send the periodic plant output details to NVVN for ensuring the CUF. The periodic output report shall also include grid outage authenticated by customer and also monthly CUF and cumulative running CUF for the year.
- 12) In case of any fault in the system, the bidder has to ensure a response time of 24 hours and maximum expected turnaround time of 72 hours (under special circumstances, additional time limit may be considered).

3. SUBMISSION OF PROJECT COMPLETION REPORT (PCR)

- 3.1. The bidder shall submit the Project Completion Report (both in editable soft copy and signed hard copy) after commissioning of the project as per the Scope of RFS to NVVN as per the Format provided by NVVN.

SCHEDULE - C

TECHNICAL SPECIFICATIONS

1. Solar PV modules

- i. The PV modules shall be purchased from class-I local supplier. Bidder shall comply with MNRE Notification dated 29.04.2024 regarding Approved Models and Manufacturers of Solar Photovoltaic Modules (Requirement for Compulsory Registration) Order, 2019 and its amendments issued time to time.
- ii. The PV modules used must qualify to the latest edition of IEC standards or equivalent BIS standards, i.e. IEC 61215/IS14286, IEC 61853-Part I/IS 16170-Part I, IEC 61730 Part-1 &Part 2 and IEC 62804 (PID). For the PV modules to be used in a highly corrosive atmosphere throughout their lifetime, they must qualify to IEC 61701/IS 61701.
- iii. The temperature co-efficient power of the PV module shall be equal to or better than - 0.40%/°C.
- iv. Solar PV modules of minimum capacity 540 Wp to be used.
- v. The PV Module efficiency should be minimum 21%.
- vi. Solar PV module shall have valid BIS registration.
- vii. All electrical parameters at STC shall have to be provided.
- viii. The PV modules shall be equipped with IP 65 or better protection level junction box with required numbers of bypass diodes of appropriate rating and appropriately sized output power cable of symmetric length with MC4 or equivalent solar connectors.
- ix. Solar 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 10 years and 80% at the end of 25 years.
If module(s) fail(s) to exhibit such power output in the prescribed time span, the Contractor will either deliver additional PV Module(s) to compensate the missing power output for complete period of 25 years with no change in area of land / rooftop used or replace the PV Module(s) with no change in area of land/rooftop used at Owner's sole option.
- x. The bidder should get a material warranty from the manufacturer for the Solar Module(s) to be free from the defects and/or failures specified below for a period not less than **ten (10)** years from the date of date of purchase which shall not be before the date of LOA.
 - a) Defects and/or failures due to manufacturing.
 - b) Defects and/or failures due to quality of materials.
 - c) Nonconformity to specifications due to faulty manufacturing and/or inspection processes. If the solar Module(s) fails to conform to this warranty, the manufacturer will repair or replace the solar module(s), at the Owners sole option.
- xi. PV modules must be tested and approved by one of the NABL accredited and BIS approved test centers.
- xii. Modules deployed must use a RF identification tag laminated inside the glass. The following information must be mentioned in the RFID used on each module:
 - a) Name of the manufacturer of the PV module
 - b) Name of the manufacturer of Solar Cells.
 - c) Month & year of the manufacture (separate for solar cells and modules)
 - d) Country of origin (separately for solar cells and module)
 - e) I-V curve for the module Wattage, I_m , V_m and FF for the module
 - f) Unique Serial No and Model No of the module
 - g) Date and year of obtaining IEC PV module qualification certificate.
 - h) Name of the test lab issuing IEC certificate.
 - i) Other relevant information on traceability of solar cells and module as per ISO 9001 and ISO 14001.
 - j) Nominal wattage +3%
 - k) Brand Name, if applicable.
- xiii. Unique Serial No, Model No, Name of Manufacturer, Manufacturing year, Make in India logo and module wattage details should be displayed inside the laminated glass.
- xiv. The modules shall be fitted with water syphoning arrangement wherever necessary to prevent water stagnation on the bottom modules.
- xv. The PV cells in a crystalline silicon module shall be protected by encapsulation between front glass and back sheet/back glass. The glass shall be made of high transmissivity and front surface shall give high encapsulation gain.
- xvi. Bidder shall submit Self-certified Electro- Luminescence (EL) Test reports of all the Crystalline Silicon based PV Modules being offered to NVVN.

2. Inverter/PCU

- i. Inverters/PCU should be purchased from Class I supplier and shall comply with applicable IEC/equivalent BIS standard for efficiency measurements and environmental tests as per standard codes IEC 61683/IS 61683, IS 16221 (Part 2), IS 16169 and IEC 60068-2(1,2,14,30) /Equivalent BIS Std.
- ii. Maximum Power Point Tracker (MPPT) shall be integrated in the inverter/PCU to maximize energy drawn from the array. Charge controller (if any) / MPPT units environmental testing should qualify IEC 60068-2(1, 2, 14, 30)/Equivalent BIS standard. The junction boxes/enclosures should be IP 65 or better (for outdoor)/ IP 54 or better (indoor) and as per IEC 529 Specifications.
- iii. All inverters/PCUs shall be IEC 61000 compliant for electromagnetic compatibility, harmonics, Surge, etc. PCU/inverter should also be DG set interactive. The PCU should also have provision of charge controller in case of systems. The PCU shall have a minimum comprehensive warranty of 10 years.
- iv. The PCU/ inverter shall have an overloading capacity of minimum 20%.
- v. Typical technical features of the inverter shall be as follows-
 - a) Switching devices: IGBT/MOSFET
 - b) Control: Microprocessor/DSP
 - c) Nominal AC output voltage and frequency: as per CEA/State regulations
 - d) Output frequency: 50 Hz
 - e) Grid Frequency Synchronization range: as per CEA/State Regulations
 - f) Ambient temperature considered: -20°C to 60°C
 - g) Humidity: 95 % non-condensing
 - h) Protection of Enclosure: IP-54 (Minimum) for indoor and IP-65(Minimum) for outdoor.
 - i) Grid Frequency Tolerance range: as per CEA/State regulations
 - j) Grid Voltage tolerance: as per CEA/State Regulations
 - k) No-load losses: Less than 1% of rated power
 - l) Inverter efficiency (Min.): >93% (In case of 10 kW or above with in-built galvanic isolation)
Inverter efficiency (Min.): >97% (In case of 10 kW or above without inbuilt galvanic isolation)
Inverter efficiency (Min.): > 90% (In case of less than 10 kW)
 - m) THD: < 3%
 - n) PF: > 0.9 (lag or lead)
 - o) Should not inject DC power more than 0.5% of full rated output at the interconnection point and comply to IEEE 519.
 - p) The PCU / inverter shall have a minimum comprehensive warranty of **10 years from the date of purchase which shall not be before the date of LOA.**
 - q) The PCU/Inverter shall be capable of controlling power factor dynamically. PCU/inverter should be equipped with components required to support reactive power The output power factor of inverter should be suitable for all voltage ranges or sink of reactive power, inverter should have internal protection arrangement against any sustain fault in feeder line and against the lightning on feeder.
- vi. The output power factor of inverter should be suitable for all voltage ranges or sink of reactive power, inverter should have internal protection arrangement against any sustain fault in feeder line and against the lightning on feeder.
- vii. All the Inverters should contain the following clear and indelible Marking Label & Warning Label as per IS16221 Part II, clause 5. The equipment shall, as a minimum, be permanently marked with:
 - a) The name or trademark of the manufacturer or supplier;
 - b) A model number, name or other means to identify the equipment,
 - c) A serial number, code or other marking allowing identification of manufacturing location and the manufacturing batch or date within a three-month time period.
 - d) Input voltage, type of voltage (a.c. or d.c.), frequency, and maximum continuous current for each input.
 - e) Output voltage, type of voltage (a.c. or d.c.), frequency, maximum continuous current, and for a.c. outputs, either the power or power factor for each output.
 - f) The Ingress Protection (IP) rating

- viii. Marking shall be located adjacent to each fuse or fuse holder, or on the fuse holder, or in another location provided that it is obvious to which fuse the marking applies, giving the fuse current rating and voltage rating for fuses that may be changed at the installed site.
 - ix. In case the consumer is having a 3- ϕ connection, 3- ϕ inverter shall be provided by the bidder as per the consumer's requirement and regulations of the State.
 - x. Inverter/PCU shall be capable of complete automatic operation including wake-up, synchronization & shutdown.
 - xi. The Inverter should have a provision of remote monitoring of inverter data through sim card. Required website/mobile app platform, where NVVN and the user (Consumer) can access the data, should be provided/explained to NVVN and consumer while installation. Additionally, if inverter has the facility of in-built wi-fi module, that should also be explained to the consumer. On demand, Inverter should also have provision to feed the data to the remote monitoring server using relevant API/ protocols. All the inverter data should be available for monitoring by giving web access. Charges for internet and website/mobile app platform shall be borne by the bidder throughout the contract period.
 - xii. Integration of PV system with Grid & Grid Islanding:
 - a) The output power from SPV would be fed to the inverters/PCU which converts DC produced by SPV array to AC and feeds it into the main electricity grid after synchronization.
 - b) In the event of a power failure on the electric grid, it is required that any independent power-producing inverters attached to the grid turn off in a short period of time. This prevents the DC-to-AC inverters from continuing to feed power into small sections of the grid, known as "islands." Powered islands present a risk to workers who may expect the area to be unpowered, and they may also damage grid-tied equipment. The Rooftop PV system shall be equipped with islanding protection. In addition to disconnection from the grid (due to islanding protection) disconnection due to under and over voltage conditions shall also be provided, if not available in inverter.
 - c) MCB/MCCB or a manual isolation switch, besides automatic disconnection to grid, would have to be provided at utility end to isolate the grid connection by the utility personnel to carry out any maintenance. This switch shall be locked by the utility personnel.
 - xiii. PCU front panel shall be provided with display (LCD or equivalent) to monitor the following:
 - A. DC power input
 - B. DC input voltage
 - C. DC current
 - D. AC output power
 - E. AC voltage (all the 3 phases)
 - F. AC current (all the 3 phases)
 - xiv. Protection required in Inverter (minimum)
 - A. Input side disconnection switch
 - B. Earth leakage /Ground fault monitoring
 - C. DC reverse polarity protection
 - D. DC over voltage / current limitation protection
 - E. AC short circuit/Earth fault protection
 - F. AC over voltage / current limitation protection
 - G. DC and AC side surge protection (MOV)in built
 - H. Anti- islanding protection
 - xv. The PCU shall have arrangement for adjusting DC input current and should trip against sustainable fault downstream and shall not start till the fault is rectified.
 - xvi. The PCU shall be able to withstand an unbalanced load conforming to IEC standard and relevant electricity condition. The PCU shall include appropriate self-protective and self-diagnostic features to protect itself and the PV array from damage in the event of PCU component failure or from parameters – beyond the PCU's safe operating range due to internal or external causes.
 - xvii. PCU shall go to shutdown/standby mode, with its contacts open, under the following conditions before attempting an automatic restart after an appropriate time delay.
 - xviii. When the power available from the PV array is insufficient to supply the losses of the PCU, the PCU shall go to standby/shutdown mode.
 - xix. The PCU control shall prevent excessive cycling of shut down during insufficient solar irradiance.
- 3. Module Mounting Structure (MMS)**
- i. Supply, installation, erection, and acceptance of module mounting structure (MMS) with all necessary accessories, auxiliaries and spare part shall be in the scope of the work.
 - ii. The design calculations shall be supplemented with neat sketch and reference to various clauses of technical specification and Indian standards. For MMS design analysis and determination of forces, where

computer program (preferably STAAD) is used, the contractor shall submit a write-up on computer program used and its input and output data for review and approval of NVVN. It may be ensured that the design has been certified by a recognized Lab/ Institution/chartered Engineer in this regard and submit wind loading calculation sheet to NVVN.

- iii. Module mounting structures can be made from three types of materials. They are Hot Dip Galvanized Iron, Aluminium and Hot Dip Galvanized Mild Steel (MS). However, MS will be preferred for raised structure.
- iv. MMS Steel shall be as per latest IS 2062:2011 and galvanization of the mounting structure shall be in compliance of latest IS 4759. MMS Aluminium shall be as per AA6063 T6. For Aluminium structures, necessary protection towards rusting need to be provided either by coating or anodization.
- v. All bolts, nuts, fasteners shall be of stainless steel of grade SS 304 or hot dip galvanized, panel mounting clamps shall be of aluminium and must sustain the adverse climatic conditions. Structural material shall be corrosion resistant and electrolytically compatible with the materials used in the module frame, its fasteners, nuts and bolts.
- vi. Structural material shall be corrosion resistant and electrolytically compatible with the materials used in the module frame and associated fasteners, nuts & bolts.
- vii. The upper edge of the module must be covered with wind shield so as to avoid build air ingress below the module. Slight clearance must be provided on both edges (upper & lower) to allow air for cooling.
- viii. Suitable fastening arrangements such as grouting and calming should be provided to secure the installation against the specific wind speed. The bidder shall be fully responsible for any damage to SPV System caused due to high wind velocity within guarantee period as per technical specification.
- ix. The structures shall be designed to allow easy replacement, repairing and cleaning of any module. The array structure shall be so designed that it will occupy minimum space without sacrificing the output from the SPV panels. Necessary testing provision for MMS to be made available at site.
- x. Adequate spacing shall be provided between two panel frames and rows of panels to facilitate personnel protection, ease of installation, replacement, cleaning of panels and electrical maintenance.
- xi. The structure shall be designed to withstand operating environmental conditions for a period of minimum 25 years.
- xii. Module Mounting Structures shall be designed to withstand the extreme weather conditions in the area (as per National Building Code 2016).
- xiii. The Mounting structure shall be designed to withstand the wind speed of 180 km/hour or cyclonic winds in coastal area. Further structure in coastal areas shall be painted with marine paint.
- xiv. Aluminum frames should be avoided for installations in coastal areas.
- xv. **No welding is allowed on the mounting structure.**
- xvi. The Bidder is responsible for the waterproofing of the roof disturbed/ pierced for installation of Project throughout the Project installation period and Comprehensive O&M period. The Bidder should immediately take necessary action to repair any damage to the waterproofing.
- xvii. The Rooftop Structures maybe classified in 3 broad categories.

a) Ballast structure

- i. For flat RCC Roofs, the mounting structure must be Non-invasive ballast type and any sort of penetration of roof to be avoided.
- ii. The minimum clearance of the structure from the roof level should allow ventilation for cooling, also ease of cleaning and maintenance of panels as well as cleaning of terrace.
- iii. The structures should be suitably loaded with reinforced concrete blocks of appropriate weight with Nominal Mix 1:1.5:3 with 20mm nominal size having compressive strength of 25MPa after 28 days of curing.

b) Structure with Anchor fastener

- i. For inclined/ Dome type RCC Roofs, the mounting structure shall be fixed on the roof with proper fasteners/bolts along with chemical grouting and sealing.
- ii. The roof should remain waterproof after erection of the structure.

c) Metallic roof structure

- i. The structure design should be as per the slope of the metallic roof.
- ii. Minimum thickness of the structural members shall be 2mm
- iii. Fixing of module mounting structures shall not cause any damage to the roof. The roof should remain waterproof.
- iv. Proper walk way and life line shall be provided.
- v. The inclination angle of structure can be done in two ways:

- A. With same tilt angle based on the slope of roof to get the maximum output.

- B. The base of structure should be connected on the Purlin of roof with the proper fastening arrangement.

4. Metering

- i. A Roof Top Solar (RTS) Photo Voltaic (PV) system shall consist of following energy meters:
- a) Net meter: To record import and export units and shall be as per DISCOM specifications.
- b) Generation Solar meter(s): To keep record for total generation of the plant at each termination. The solar meter shall be having warranty for a minimum period of **10 years** from the date of purchase which shall not be before the date of LOA. In case solar meter is supplied by DISCOM and is not having warrantee of 10 years, Bidder has to bear the cost of its replacement in case of any defect.
- c) The installation of meters including CTs & PTs, wherever applicable, shall be carried out by the bidder as per the terms, conditions and procedures laid down by the concerned SERC/DISCOMs.
- d) In case access to the generation solar meter is not available for remote metering, another energy meter shall be provided for remote metering. PI refer to cl. 12 vii in this regard for remote data monitoring.

5. Array Junction Boxes:

- i. The junction boxes are to be provided in the PV array for termination of connecting cables. The Junction Boxes (JBs) shall be made of GRP/FRP/Powder Coated aluminum /cast aluminum alloy with full dust, water & vermin proof arrangement. All wires/cables must be terminated through cable lugs. The JB's shall be such that input & output termination can be made through suitable cable glands. Suitable markings shall be provided on the bus-bars for easy identification and cable ferrules will be fitted at the cable termination points for identification.
- ii. Copper bus bars/terminal blocks housed in the junction box with suitable termination threads Conforming to IP 65 or better standard and IEC 62208 Hinged door with EPDM rubber gasket to prevent water entry, Single /double compression cable glands should be provided.
- iii. Polyamide glands and MC4 Connectors may also be provided. The rating of the junction box shall be suitable with adequate safety factor to interconnect the Solar PV array.
- iv. Suitable markings shall be provided on the bus bar for easy identification and the cable ferrules must be fitted at the cable termination points for identification.
- v. Junction boxes shall be mounted on the MMS such that they are easily accessible and are protected from direct sunlight and harsh weather.

6. DC Distribution Box (DCDB):

- i. May not be required for small plants, if suitable arrangement is available in the inverter.
- ii. DC Distribution Box are to be provided to receive the DC output from the PV array field.
- iii. DCDBs shall be dust & vermin proof conform having IP 65 or better protection, as per site conditions.
- iv. The bus bars are made of EC grade copper of required size. Suitable capacity MCBs/MCCB shall be provided for controlling the DC power output to the inverter along with necessary surge arrestors. MCB shall be used for currents up to 63 Amperes, and MCCB shall be used for currents greater than 63 Amperes

7. AC Distribution Box (ACDB):

- i. AC Distribution Panel Board (DPB) shall control the AC power from inverter, and should have necessary surge arrestors, if required. There is interconnection from ACDB to mains at LT Bus bar while in grid tied mode.
- ii. All switches and the circuit breakers, connectors should conform to IEC 60947:2019, part I, II and III/ IS 60947 part I, II and III.
- iii. The isolators, cabling work should be undertaken as part of the project.
- iv. All the Panels shall be metal clad, totally enclosed, rigid, floor mounted, air -insulated, cubical type suitable for operation on 1- ϕ /3- ϕ , 415 or 230 volts, 50 Hz (or voltage levels as per CEA/State regulations).
- v. The panels shall be designed for minimum expected ambient temperature of 45 degree Celsius, 80 percent humidity and dusty weather.
- vi. All indoor panels will have protection of IP 54 or better, as per site conditions. All outdoor panels will have protection of IP 65 or better, as per site conditions.
- vii. Should conform to Indian Electricity Act and CEA safety regulations (till last amendment).
- viii. All the 415 or 230 volts (or voltage levels as per CEA/State regulations) AC devices / equipment like bus support insulators, circuit breakers, SPDs, Voltage Transformers (VTs) etc., mounted inside the switchgear shall be suitable for continuous operation and satisfactory performance under the following supply conditions.
 - a) Variation in supply voltage: as per CEA/State regulations
 - b) Variation in supply frequency: as per CEA/State regulations

- ix. The inverter output shall have the necessary rated AC surge arrestors, if required and MCB/ MCCB. RCCB shall be used for successful operation of the PV system, if inverter does not have required earth fault/residual current protection.
- x. CODE AND STANDARDS:-

IS	Details
IEC 60947/ IS13947	Low-voltage switchgear and control gear
IS 2705	Current Transformers
IS 3043	Code of practice for earthing.
IS 3072	Code of practice for installation and maintenance of Switchgear
IS 3156	Voltage Transformers
IS 3202	Code of practice for climate proofing of electrical equipment.
IS 3231	Electrical relays for power system protection.
IS 13703 /IEC 60269	HRC Cartridge fuses
IS 10118 (4 parts)	Code of practice for selection, installation and maintenance of switchgear and control gear.
IEC 60255	Electrical Relays

8. Protections

The system should be provided with all necessary protections like earthing, Lightning, and Surge Protection as per CEA Safety regulations 2023 as described below.

i. Earthing Protection

- a) The earthing shall be done in accordance with latest Standards. This specification is intended to outline the requirement of earthing for Solar Array (DC Side) and AC power block side of Solar PV Plant. It is not the intent of the specification to specify all details of design and construction since the bidder has full responsibility for engineering and implementation of earthing system meeting the functional requirement. Any additional equipment, material, services which are not mentioned herein but are required for installation , testing and commissioning of earthing system for safe and satisfactory operation of plant shall be included under scope of the bidder.
- b) Each array structure of the PV yard, Low Tension (LT) power system, earthing grid for switchyard, all electrical equipment, inverter, all junction boxes, etc. shall be grounded properly as per IS 3043-2018.

- c) Metallic frame of all electrical equipment shall be earthed by two separate and distinct connections to earthing system, each of 100% capacity.

ii. **Lightning Protection**

- a) The SPV power plants shall be provided with lightning & over voltage protection, if required. The main aim in this protection shall be to reduce the overvoltage to a tolerable value before it reaches the PV or other sub system components. The source of over voltage can be lightning, atmosphere disturbances etc.
- b) The entire space occupying the SPV array shall be suitably protected against Lightning by deploying required number of Lightning Arrestors (LAs). Lightning protection should be provided as per NFC17-102:2011/IEC 62305 standard.
- c) Lightning Mast / conductor, placed at strategic locations, shall be used to protect the arrays against lightning protection.
- d) The protection against induced high-voltages shall be provided by the use of Metal Oxide Varistors (MOVs)/Franklin Rod type LA/Early streamer type LA.

iii. **Surge Protection**

- a) Internal surge protection, wherever required, shall be provided.
- b) It will consist of three SPD type-II/MOV type surge arrestors connected from +ve and -ve terminals to earth.

9. **CABLES**

- i. All cables should be of the latest edition of IEC/equivalent BIS Standards (ISI marked) along with IEC 60227/IS 694, IEC 60502/IS 1554 standards.
- ii. Cables should be flexible and should have good resistance to heat, cold, water, oil, abrasion etc.
- iii. Armored cable should be used and overall PVC type 'A' pressure extruded insulation or XLPE insulation should be there for UV protection
- iv. Cables should have Multi Strand, annealed high conductivity copper conductor on DC side and copper/FRLS type Aluminum conductor on AC side. For DC cabling, multi-core cables shall not be used.
- v. Cables should have operating temperature range of -10°C to +80°C and voltage rating of 660/1000 V.
- vi. Sizes of cables between array interconnections, array to junction boxes, junction boxes to Inverter etc. shall be so selected to keep the voltage drop less than 2.0 % (DC Cable losses).
- vii. The size of each type of AC cable selected shall be based on minimum voltage drop. However, the maximum drop shall be limited to 2.0 %
- viii. The electric cables for DC systems for rated voltage of 1500 V shall conform to BIS 17293:2020.
- ix. All cable/wires are to be routed in a RPVC pipe/ GI cable tray and suitably tagged and marked with proper manner by good quality ferule or by other means so that the cable is easily identified.
- x. All cable trays including covers to be provided.
- xi. The Cable should be so selected that it should be compatible up to the life of the solar PV panels i.e. 25 years.

10. **DRAWINGS & MANUALS:**

- i. Operation & Maintenance manual/user manual, Engineering and Electrical Drawings shall be supplied along with the power plant.
- ii. The manual shall include complete system details such as array lay out, schematic of the system, inverter details, working principle etc.
- iii. The Manual should also include all the Dos & Don'ts of Power Plant along with Graphical Representation with indication of proper methodology for cleaning, Operation and Maintenance etc.
- iv. Step by step maintenance and troubleshooting procedures shall also be given in the manuals.
- v. Bidders should also educate the consumers during their O&M period.

11. **TRANSFORMERS (if required)**

- i. Dry type appropriate kVA, of transformer Step up along with all protections, switchgears, Vacuum circuit breakers, cables etc. along with required civil work. Dry Type Transformer shall be constructed in accordance to IS: 2026, IS: 11171, Indian Electricity Act 2003, BEE Guideline & CEA notifications and equivalent to any other international standard. Transformers shall be complete & functional in all respects. The other important construction particulars shall be as below.

- a) The transformers shall be housed in metal protective housing, having a

- degree of ingress protection. The enclosure shall be provided with suitable hardware (as required).
- b) The conductors shall be of electrolytic grade copper free from scales & burrs.
- c) Dry Type Transformer windings shall be of class F insulation or better.
- d) The core shall be constructed from non-ageing, cold rolled, grain oriented silicon steellaminations.
- e) The maximum losses for dry type transformer shall not be more than the values specified in latest energy conservation building code (ECBC) of BEE.
- f) The fittings/accessories, including protection/monitoring device generally required for satisfactory operation of the transformer, are to be provided.
- g) Suitable rain shed arrangement shall be provided to keep transformer under that arrangement.
- h) Painting shall be as per employer's requirement (will be finalized during detailed engineering)
- i) Type and routine test shall be conducted as per IS11171.

- ii. In case the bidder/contractor has conducted such specified type test(s) within last ten years as on the date of techno commercial bid opening, he may submit the type test reports to the owner for waiver of conductance of such type test(s). These reports should be for the test conducted on the equipment similar to those proposed to be supplied under this contract and test(s) should have been either conducted at an independent laboratory or should have been witnessed by Owner. In case the bidder is not able to submit report of the type test(s) conducted within last ten years from the date of bid opening, or in case the type test report(s) are not found to be meeting the specification requirements the bidder shall conduct all such tests under this contract at no additional cost to the employer at an independent laboratory or in presence of the Owner's representative and submit the test reports.

12. Data Monitoring:

- i. Remote monitoring of the generation of Solar Power shall be done through appropriate app which shall be provided by bidder. Provision for mobile app-based display shall be made for all the data display with a provision to interact with NVVN and Procurer and other stakeholders.
- ii. Remote Monitoring and data acquisition through Remote Monitoring System software with latest software/hardware configuration and service connectivity for online / real time data monitoring/control complete to be supplied and Comprehensive O&M/control to be ensured by the supplier. Provision for interfacing these data on any other Agency server and portal in future shall be kept. The Contractor must ensure the yearly availability and connectivity of the RMS system to be at least 99%.
- iii. Measurement of Solar PV parameters at Inverter level: These Inverter parameters shall have provision of data logging through Mod Bus (RS-485) protocol.
- iv. Solar Irradiance: An integrating Pyranometer (Class II or better) shall be provided, with the sensor mounted on a Horizontal plane at a shadow free suitable location near solar arrays at one of the Roof Top within premises.
- v. Temperature: Temperature probes for recording the PV Cell temperature shall be provided at one of the modules at shadow free area at one of the Roof Top within premises.
- vi. Regarding the generated power consumption, priority needs to be given for internal consumption first and thereafter any excess power can be exported to the distribution licensee network.
- vii. **The bidder is also required to fetch the real time generation data from the solar meter for remote metering, billing and monitoring. In case the solar meter is not accessible due to DISCOM restrictions, the bidder shall install an additional meter just before the solar meter which shall be suitable for remote metering on open protocol, within the quoted price. Bidder shall also provide API for the Remote metering system which shall be used for billing and monitoring.**

13. Miscellaneous:

- i. Connectivity: The maximum capacity for interconnection with the grid at a specific voltage level shall be as specified in the DERC/SERC regulation for Grid connectivity and norms of DISCOM and amended from time to time. The Bidder must take approval/NOC from the concerned DISCOM for the connectivity, technical feasibility, and synchronization of Project with DISCOM network and submit the same to NVVN before Commissioning Project. Reverse power relay shall be provided by Bidder (if necessary), as per the DISCOM's requirement.

- ii. Safety measures: Electrical safety of the installation(s) including connectivity with the grid must be taken into account and all the safety rules & regulations applicable as per Electricity Act, 2003 and CEA Safety Regulation 2023 etc. or its latest amendments must be followed.
- iii. Danger boards, Caution Boards should be provided as and where necessary as per IE Act /IE rules as amended up to date.
- iv. Shadow analysis: The shadow analysis report with the instrument such as Solar Pathfinder or professional shadow analysis software of each site should be provided and the system shall be installed only in shadow free space. Lower performance of the system due to shadow effect shall be liable for penalty for lower performance.
- v. Firefighting system – Portable fire extinguishers/sand buckets shall be provided wherever required as per norms.
- vi. Bidder should dispose off the packing material, surplus items, unused materials, waste etc. generated during construction, as per applicable Rules and standards. Concrete wastes and dead mortar if any are to be removed and the area is to be cleaned immediately.
- vii. The bidder shall take fully responsible for safety of manpower, materials and premises. The contractor shall take special care for safe working at height, electrical safety of the installation(s) including connectivity with the grid and follow all the safety rules & regulations applicable as per Electricity Act, 2003, CEA guidelines and other applicable standard practices.
- viii. The bidder shall provide a display board mentioning the details of the project.
- ix. Even if the plant is transferred by NVVN to NVVN's end consumer/ owner of the premises, all obligations of the successful bidder related to O&M of the plant up to 10 years shall remain the same as per the terms and conditions of the contract.
- x. Stickers as per NVVN requirements e.g. instructions/ guidelines/ danger mark.

SCHEDULE D

i. PERFORMANCE GUARANTEE TEST FOR ROOFTOP SOLAR PV

The Performance Guarantee (PG) Test shall be carried out after successful commissioning of the system. PG Test shall be carried out on any rooftop location by measuring Performance Ratio (PR) and comparing to the Guaranteed PR of 75%. The test shall be repeated for each location having inverter of having different make or type of control. In case there are more than one rooftop having similar inverter, the test rooftop shall be decided based on mutual consent. Further, the PG test shall be conducted once for every 200 kW or its part thereof in the premise. The mathematical formula for calculating PR is given below:

$$\text{PR (\%)} = \frac{\text{AC Yield (KWh)} \times 100}{\text{Installed Capacity (kWp)} \times \text{Global Inclined Insolation (kWh/m}^2\text{)}}$$

- For the purpose of measuring Global Inclined Insolation (GII), another pyranometer shall be installed on returnable basis, mounted at the plane of the module, at free of cost.
- Measuring instruments to record on site data will include a pair of pyranometers (horizontal and inclined with sensitivity of $7\mu\text{V}/(\text{W}/\text{m}^2)$, temperature sensor, signal converter.
- The Bidder will be responsible to conduct the PG test only after achieving the physical completion and synchronization of the plant and complying the relevant requirements from utility.
- The PG test will be conducted for durations in which irradiance level is greater than $750 \text{ W}/\text{m}^2$ and the test will continue until a total horizontal radiation of $5 \text{ kWh}/\text{m}^2$ has been achieved.
- The PR values shall be computed based on actual energy generated at solar meters.
- If failed to achieve the guaranteed performance levels, the bidder will at its own cost rectify all the defects identified during the test and take necessary steps/efforts to pass the PR test within the stipulated time span. Subsequent to rectification the PR will be restarted.
- During PG test, if there is a grid outage, those time slots will not be considered. If the values are again below the guaranteed performance levels, bidder will be liable to pay Liquidated Damages (LD) to NVVN, which shall be calculated as below:

Short fall in $\text{PR}(\%) = \Delta\text{PR} = \text{Target PR} - \text{Achieved PR}$

Shortfall in Generation $= \Delta E = (\Delta\text{PR}/\text{Achieved PR}) \times \text{measured Generation}$

• Yearly shortfall in Generation $(\Delta E \text{ Yearly}) = \Delta E \times (\text{Annual GHI}/5)$

Applicable Liquidated Damages (LD) $= N \times R \times \Delta E \text{ yearly}$

Where R= tariff factor i.e. ₹6.0 / kWh (For illustration only. Actual amount is as per annexure A)

$N=11.37$

A Sample Calculation for 40 kW Capacity of Plant Rooftop solar PV

Capacity of the plant=40 kW

Global Horizontal Insolation of Site (GY)=1977 kWhr/m²-year

Measured Global Horizontal Insolation- GHITEST=5 kWhr/m²

Measured Global Inclined Insolation- GIITEST=5.213 kWhr/m²

Capacity of the plant where PG test be conducted=40 kW

Metered Generation corresponding to radiation >750 W/m²=152 kWhr

Measured PR= $152 \times 100 / (40 \times 5.213) = 72.89\%$

Shortfall in PR= $75\% - 72.89\% = 2.11\%$

Shortfall in Generation for test period= $(2.11/72.89) \times 152 = 4.40 \text{ kWhr}$

Yearly Shortfall in Generation= $4.40 \times (1977/5) = 1739.78 \text{ kWhr}$

Applicable LD= $N \times R \times \Delta E \text{ yearly} = 11.37 \times 6 \times 1739.78 = \text{INR } 118687.80$

h. The cap on LD for not achieving the desired and guaranteed PR of 75% shall be 25% of the contract value awarded excluding the O&M Cost.

ii. Equipment performance guarantee

a. Further the Bidder is liable to maintain the minimum guaranteed Annual CUF measured at Delivery Point for the 10 operational years, failing which the Bidder is liable to pay the LD for shortfall in generation. The LD shall be equal to shortfall in energy corresponding to energy equivalent to modified guaranteed Annual CUF multiplied by the Tariff factor i.e. $\text{INR } \Delta E \times \text{Tariff factor}$, where ΔE is yearly shortfall in energy corresponding to energy equivalent to modified guaranteed Annual CUF and Tariff factor (as mentioned in Annexure-A of 'Scope of Work and Technical specifications'). The LD shall be recovered from O&M BG and thereafter from O&M payment. The cap on LD for shortfall in generation shall be 10% of the Annual Energy corresponding to guaranteed CUF for that year multiplied by Tariff Factor. In the case of invocation of the O&M BG due to shortfall in generation, the bidder shall resubmit a BG of originally envisaged value immediately.

b. The modified guaranteed annual CUF shall be calculated based on the shortfall in energy during PG Test, if any.

c. For determining the Annual CUF, the annual module degradation shall be taken as 0.7% cumulative from 2nd operational year. The duration for which the Generation was interrupted due to non-availability of Grid during solar hours or any other reasons not attributable to Bidder shall not be taken into account for calculation of Annual CUF.

d. Let us understand with the illustrative example already given at Schedule 4, Clause(i),

i. Case 1: If there is no shortfall in generation during PG test:

The capacity of Solar plant considered is 40 kW and the desired minimum annual CUF is 16% for 1st year of O&M i.e. generation (G) of 56102.40 kWhr.

Further, for the 2nd operational year, considering the module degradation of 0.7% per annum, the annual target generation for 2nd operational year shall be equal to $=56102.40 \times (1-0.007)$ i.e. 55709.68 kWhr.

Further for the 3rd operational year, considering the module degradation of 0.7% per annum, the annual target generation for 3rd operational year shall be equal to $= 56102.40 \times (1-2 \times (0.007))$ i.e. 55316.97 kWhr.

This will continue till the end of 10th operational year.

ii. Case 2: If there is shortfall in generation during PG test:

The capacity of Solar plant considered is 40 kW and the desired minimum annual CUF is 16% for 1st year of O&M i.e. generation (G) of 56102.40 kWhr. Now if the shortfall in annual energy during PG test is 1739.8 kWhr, then the modified annual energy generation (G1) target for 1st year shall be 54362.6 kWhr. The modified guaranteed annual CUF for the 1st year shall be equal to $54362.6 \times 100 / (8766 \times 40) = 15.50\%$.

Further, for the 2nd operational year, considering the module degradation of 0.7% per annum, the annual target generation for 2nd operational year shall be equal to $=54362.6 \times (1-0.007)$ i.e. 53982.06.

Further for the 3rd operational year, considering the module degradation of 0.7% per annum, the annual target generation for 3rd operational year shall be equal to $= 54362.6 \times (1-2 \times (0.007))$ i.e. 53604.19.

This will continue till the end of 10th operational year.

Quality Certification, Standards and Testing for Grid-Connected Solar PV Systems/Power Plants

Solar PV Modules/Panels	
IEC 61215 and IS 14286	Design Qualification and Type Approval for Crystalline Silicon Terrestrial Photovoltaic (PV) Modules
IEC 61701:2011	Salt Mist Corrosion Testing of Photovoltaic (PV) Modules
IEC 61853- 1:2011 / IS 16170-1:2014	Photovoltaic (PV) module performance testing and energy rating –: Irradiance and temperature performance measurements, and power Rating.
IEC 62716	Photovoltaic (PV) Modules – Ammonia (NH ₃) Corrosion Testing (as per the site condition like dairies, toilets etc)
IEC 61730-1,2	Photovoltaic (PV) Module Safety Qualification – Part 1: Requirements for Construction, Part 2: Requirements for Testing
IEC 62804	Photovoltaic (PV) modules – Test method for detection of potential induced degradation. IEC 62804-1: Part 1: Crystalline Silicon
Solar PV Inverters	
IEC 62109 or IS : 16221	Safety of power converters for use in photovoltaic power systems – Part 1: General requirements, and Safety of power converters for use in photovoltaic power systems Part 2: Particular requirements for inverters. Safety compliance (Protection degree IP 65 or better for outdoor mounting, IP 54 or better for indoor mounting)
IS/IEC 61683 latest (as applicable)	Photovoltaic Systems – Power conditioners: Procedure for Measuring Efficiency (10%, 25%, 50%, 75% & 90-100% Loading Conditions)
IEC 60068-2 /IEC 62093 (as applicable)	Environmental Testing of PV System – Power Conditioners and Inverters
IEC 62116:2014/ IS16169	Utility-interconnected photovoltaic inverters - Test procedure of islanding prevention measures

Sample Project Completion Report for Grid-Connected Rooftop			
Financial year :			
Approval No.:			
Proposal Title :			
Installed by agency :			
Project initiated by :			
Title of the Project :		Capacity	
Category of the organization / beneficiary:		Name of the contact person:	
Address of contact person :			
State :		District/City :	
Mobile:		Email :	
Telephone No. :		Website :	
Other info			
Electricity Distribution CompanyName :			
Electricity consumer account no. as per electricity bill :		as on Date :	
Technology Description & System Design /Specification			
(Compliance to BIS/IEC Standards is mandatory)			
1. Module			
Capacity/Power of each PV Module(Wp) :	1.		1. Nos: 2. Nos:
Cumulative Capacity of Modules (KWp):			
Solar cell technology :			
Module efficiency (in Percentage) :			
2. Inverters			
Type of inverter :			
Make of inverter :			
Capacity/Power of each PCU/inverters (VA) :	Capacity / Power Nos.		
Capacity/Power of PCU / inverters(KVA) :			
Inverter efficiency (Full load) :			
(in percentage)			

3. Metering Arrangement			
Any other details:			
Make and Type of Meter :			
Metering Details:			
4.. Other informations			
Units of electricity generated by the solar plant as per meter (in KWh):			
Monitoring Mechanism :			
No. of personnel to be trained inO&M			
Grid connectivity level			
Grid connectivity level phase :		Grid connectivity level Voltage :	

The following to be included in Project Completion Report:

1. Warranty period of panels, inverters, and meters.
2. Module ALMM reference no. in latest MNRE List.
3. Inverter supplier certificate for Class 1 Supplier.
4. PR test report.
5. Discom connectivity certificate/approval.
6. Layout of Panel.

INSPECTION AND MAINTENANCE SCHEDULE

Component	Activity	Description	Interval	By
Module Mounting structure	Inspection	Check whether the MMS are properly in tightened position and check for corrosion.	Quarterly	Site in charge
PV Module	Cleaning	Clean any bird droppings/dark spots on module	Immediately	Site in charge
	Cleaning	Clean PV modules with plain water or mild dishwashing detergent. Do not use brushes, any types of solvents, abrasives, or harshdetergents.	As per the site conditions and at least once a week	Site in charge
	Inspection (for plants > 100 kWp)	Use infrared camera to inspect for hot spots;bypass diode failure	Annual	Site in charge
PV Array	Inspection	Check the PV modules and rack for any damage. Note down location and serial number of damagedmodules.	Annual	Site in charge
	Inspection	Determine if any new objects, such as vegetation growth, are causing shading of thearray and move them if possible.	Quarterly	Site in charge
	Vermin Removal	Remove bird nests or vermin from array and rack area.	Quarterly	Site in charge
Junction Boxes	Inspection	Inspect electrical boxes for corrosion or intrusionof water or insects. Seal boxes if required. Check position of switches and breakers. Check operation of all protection devices.	Annual	Site in charge

Component	Activity	Description	Interval	By
Wiring	Inspection	Inspect cabling for signs of cracks, defects, loose connections, overheating, arcing, short or open circuits and ground faults.	Annual	Site in charge
Spare Parts	Management	Manage inventory of spare parts. to ensure that the amount of power being generated is typical of the conditions. Inspect Inverter housing or shelter for physical Maintenance, if required.	As needed	Site in charge
Inverter	Service	Clean or replace any airfilters.	As needed	Site in charge
Instruments	Validation	Spot-check monitoring instruments (pyranometer etc.) with standard instruments to ensure that they are operational and within specifications.	Annual	Site in charge
Transformer	Inspection	Inspect transformer oil level, temperature gauges, breather, silica gel, meter, connections etc.	Annual	Site in charge
Tracker (if present)	Inspection	Inspect gears, gear boxes, bearings as required.	Annual	Site in charge
	Service	Lubricate tracker mounting bearings, gearbox as required.	Bi-annual	Site in charge
Plant	Monitoring	Daily Operation and Performance Monitoring	Daily	Site in charge
Log Book	Documentation	Document all O&M activities in a workbook available to all service personnel	Continuous	Site in charge

APPENDIX 4

Monthly O & M Report

Month and year:

Name of the Bidder:

LOA No:

Project Capacity:

Address of the site:

Part A

Component	Activity	Description	Date	Signature of contractor	Signature of custodian of building	*Remarks
PV Module	Cleaning	Immediately clean any bird droppings/ dark spots on module.				
	Cleaning	Clean PV modules with plain water or mild dishwashing detergent.				
	Inspection (for plants > 100kWp)	Infrared camera inspection for hot spots; bypass diode failure.				
PV Array	Inspection	Check the PV modules and rack for any damage.				
	Inspection	If any new objects, such as vegetation growth etc., are causing shading of the array. Remove if any.				
	Vermin Removal	Remove bird nests or vermin from array and rack area.				
Junction Boxes	Inspection	- Inspect electrical boxes for corrosion, intrusion of water or vermin. - Check position of switches and breakers. - Check status of all protection devices.				

Component	Activity	Description	Date	Signature of contractor	Signature of custodian of building	*Remarks
Wiring	Inspection	Inspect cabling for signs of cracks, defects, loose connections, corrosion, overheating, arcing, short or open circuits, and ground faults				
Inverter	Inspection	• Observe instantaneous operational indicators on the faceplate. • Inspect Inverter housing or shelter for any physical				
Inverter	Service	Clean or replace any air filters.				
Instruments	Validation	Verify monitoring instruments (pyranometer etc.) with standard instruments to verify their operation within tolerance limits.				
Transformer	Inspection	Inspect transformer oil level, temperature gauges, breather, silica gel, meter, connections etc.				
Plant	Monitoring	Daily Operation and Performance Monitoring.				
Spare Parts	Management	Manage inventory of spareparts.				
Log Book	Documentation	Maintain daily log records.				
Tracker (if any)	Inspection	Inspect gears, gear boxes, bearings, motors.				
	Service	Lubricate bearings, gear as required.				

Total generation for the month in kWh:

Cumulative generation since commissioning in kWh:

CUF for month in %:

Cumulative CUF since commissioning in %:Date:

Signature of the Authorized signatory of the custodian of the premise

Signature of the Authorized signatory of the Contractor

ADDITIONAL REQUIREMENTS FOR GROUND MOUNTED SOLAR PROJECTS

PART B1

1. The scope of work covers the following activities and services in respect of all the equipment & works specified and covered under the specifications and read in conjunction with "Scope of Supply & services" elaborated elsewhere. The scope of supply shall include design, engineering, manufacture, testing at works, dispatch, transportation, transit insurance, receipt, unloading, and storage of all equipment/ materials, statutory approvals from state/central govt. bodies if required, not limited to, those mentioned in the following:
 - a) Solar Panels
 - i. Adequate Capacity of Solar PV Modules of suitable rating so as to achieve the CUF specified in annexure-1A, part A but in no case, DC capacity shall be less than 130% of the rated AC inverter capacity
 - ii. The designed array capacity at STC shall be suitably determined to meet the proposed guaranteed generation output at the point of interconnection by the contractor in his bid. The contractor shall take care of first year degradation also by installing additional DC capacity as the CUF calculations will not factor the first year degradation of the modules.
 - b) Module Mounting Structures (MMS)
 - c) Inverters/ Power Conditioning Units of suitable rating along with MPPT Mechanism (Applicable as per Design)
 - d) String Monitoring Unit (SMU) along with Mounting Structure (Applicable as per Design)
 - e) Array Junction Boxes, Distribution Boxes and Fuse Boxes: MCBS/ Isolators, Surge Arrestors with String Monitoring Capabilities and with proper Lugs, Glands, Ferrules, Terminations and Mounting Structures
 - f) Solar Cables along with Lugs, Glands, Ferrules, Straight/ Y-Connectors and other materials required for proper Cable Termination at both the ends.
 - g) Step-up oil Transformers as mentioned in Technical Specification (Inverter Duty) as per Inverter Manufacturer/design requirements.

TECHNICAL REQUIREMENTS

Sr. No.	TRANSFORMER	INVERTER TRANSFORMER
i)	VA Rating & Quantity	As per system requirement
ii)	Voltage Ratio (KV)	System voltage/Inverter Voltage
iii)	Duty, Service & Application	Continuous Solar Inverter application and converter duty (Outdoor)
iv)	Winding	Two /three winding
v)	Frequency	50 Hz
vi)	Nos. of Phase	THREE
vii)	Vector Group & Neutral earthing	As per Inverter manufacturer recommendation
viii)	Cooling	As per system requirement such as KNAN/ONAN
ix)	Tap Changer	As per system requirement OCTC +/- 10% (min.)
x)	Impedance at75°C	
	a) Principal Tap	As per system requirement & as per Inverter manufacturer recommendation.
	b) Other Taps	
xi)	Permissible Temperature rise over an ambient of 50 deg C (irrespective of tap)(without altitude correction)	
	a) Top Oil	50 deg.C
	b) Winding	55 deg.C

xii)	SC withstand time (thermal)	2 sec.
xiii)	Fault Level & Bushing CT	As per system requirement
xiv)	Termination	Through cable box (IP55).
xv)	Bushing rating, Insulation class (Winding & bushing)	As per relevant IS/IEC
xvi)	Noise level	AS PER NEMA TR-1
xvii)	Loading Capability	Continuous operation at rated MVA on any tap with voltage variation of +/-10%, also transformer shall be capable of being loaded in accordance with IS: 6600/ IEC60076-7.
xviii)	Flux density	Not to exceed 1.9 Wb/sq.m. at any tap position with +/-10% voltage variation from voltage corresponding to the tap. Transformer shall also withstand following over fluxing conditions due to combined voltage and frequency fluctuations: a) 110% for continuous rating. b) 125% for at least one minute. c) 140% for at least five seconds. Bidder shall furnish over fluxing char. up to 150%
xix)	Constructional Feature	As per CBIP,IS 2026
xx)	Indicative Minimum Fittings	WTI, OTI, Buchholtz, PRV, top & bottom filter valve, sampling, drain valve, MOG. Rainhood/Snowhood as applicable
xxi)	Winding	Electrolytic grade copper free from scales & burrs.
xxii)	Core	M4 grade or better
xxiii)	Bushing	11 kV shall be oil communicating type with porcelain insulator. LV Bushing $\leq$ 3.6 kV, epoxy type bushing allowed as alternate to porcelain type LV bushing palms shall be silver/tin plated.
xxiv)	Gasket	weather proof, hot oil resistant, nitrile rubber based gasket

Note:-

- Inverter Transformer shall have copper/Aluminum Shield winding between LV & HV windings. Each LV winding must be capable of handling **non-sinusoidal voltage with voltage gradient as per relevant applicable standards and Inverter manufacturer recommendation**. Also each shield winding shall be taken out to tank with two separate connection from shield to bushing with proper support with 2 nos. relevant voltage (as per system requirement) shield bushings and same shall be brought down along with support insulator from tank & copper flat up to the bottom of the tank for independent grounding.
- Harmonic Factor and dc bias component as per Inverter manufacturer recommendation must be taken into account while designing the transformer.
- The adverse effect on life of transformer due to cloud intermittency and solar generation loading cycle must be compensated through suitable design (as applicable).

- The thermal design of Inverter Transformer needs to consider the temperature dependent performance of the Inverter. It is to in accordance with Inverter output and under worst condition it should not limit Inverter output.
- For multi winding transformer, it is recommended to have close coupling and equal impedances on each of LV winding to HV winding and to have high enough impedance (8% min. based on one LV winding rating) between two LV windings in order to decouple these windings.
- Single Line Diagram (SLD) will be finalized during detailed engineering however the kVA rating of any LV winding inverter transformer shall not be less than total kVA capacity of Inverters connected to respective LV winding.
- CODES AND STANDARDS

Transformers	IS:2026, IS:6600, IEC:60076
Bushings	IS:2099, IEC:60137, IS 3347 ,IS 12676
Insulating oil	IEC 61099/IS16081
Bushing CTs	IS:2705
Indian Electricity Act 2003, BEE Guideline & CEA notifications	

- Painting shall be as per owner's requirement. Firewall, soak pit, Fire protection system associated with Inverter transformer shall be followed as per statutory requirement.
 - Type and routine test shall be conducted as per latest IS 2026. In case the bidder/contractor has conducted such specified type test(s) within last ten years as on the date of bid opening, he may submit the type test reports to the owner for waiver of conductance of such type test(s). These reports should be for the test conducted on the equipment same to those proposed to be supplied under this contract and test(s) should have been either conducted at an independent laboratory or should have been witnessed by client. In case the bidder is not able to submit report of the type test(s) conducted within last ten years from the date of bid opening, or in case the type test report(s) are not found to be meeting the specification requirements the bidder shall conduct all such tests under this contract at no additional cost to the employer and submit the test reports for approval
- h) Indoor/ Outdoor 415V/6.6/11/33 KV Switchgear Panels including Vacuum Circuit Breakers, Current transformers, Voltage Transformers, Relays and other Accessories for complete Protection at the Plant evacuation point.
- i) Auxiliary Transformers of adequate rating for Plant internal consumption, as per design and as per system requirement.
- j) AC Distribution Panels with sufficient number of output Feeders required for Auxiliary Power Distribution
- k) DC and AC Power Cables of appropriate sizes with Cable Termination Kits
- l) LT Power and Control Cables including end Terminations and other required accessories for both AC & DC Power
- m) Cable from Solar Array Field to 415V/ 6.6/11/33 KV Switchgear Panel at Plant Switchyard along with Insulators, Cable Termination Kits, Earth Electrodes and other associated accessories
- n) Design & Construction of Transmission Line/ Cable from Plant take off point to the designated evacuation point.
- o) Materials and accessories, which are required for satisfactory and trouble-free operation and

Maintenance of the above equipment like Module Cleaning System, Supply of Spares for all Equipment, Supply of Tools and Tackles etc.

2. The scope of Civil design and Construction work shall include all works required for the Project and should be performed specifically with respect to following (but not limited to):
 - a) Conducting Geotechnical Investigation and Topographical Survey of the Plant Area
 - b) Earthwork for Site Grading, Cutting, Filling, Levelling & Compaction of Land, as required
 - c) Construction and Erection of Barbed wire fencing around the PV Array Field
 - d) Construction of Main control /inverter room along with necessary facilities.(IF REQUIRED)
 - e) Construction of Water Drainage system & Sewage Network (IF REQUIRED)
 - f) Underground cabling trench (IF REQUIRED)
3. All the drawings, SLD's, layouts submitted by bidder shall be vetted by recognized 3rd party institutions/NITs/IITs/NISE/charted engineers/any governments recognized institutions. Write-ups for justification of design & drawing calculations shall also be provided if required. Declaration shall be provided by 3rd party agency & successful bidder on their respective letter heads that the all the design & drawing which ever they are submitting for approval it is as per the relevant clauses of the bid document.
4. Seeking any Approval and clearances required from Government departments, wherever applicable and the cost associated for registration/security deposit/any other charges if any shall be borne by Bidder.
5. HT SWITCHGEAR: CODES AND STANDARDS
 - 5.1. The bidder shall make proper arrangements for evacuation of power at existing electrical system of NEEPCO. Further bidder shall take utmost care while designing that any fault in the solar plant side should not interfere the existing electrical system of NEEPCO and vice versa. The SLD and its rating shall be finalised during detailed engineering and hence bidder is advised to have site visit. All standards, specification and codes of practices referred to herein shall be the latest editions including all applicable official amendments and revisions as on date of opening of Techno commercial bid. In case of conflict between this specification and those (IS Codes, Standards etc.) referred to herein, the former shall prevail. All work shall be carried out as per the following standards and codes

Sl No	IS Code	Name Of Equipment
a)	IS: 722	AC electricity meters.
b)	IS: 996	Single phase small AC and universal electrical motors.
c)	IS: 1248	Direct Acting indicating analogue electrical measuring instruments and Accessories.
d)	IS/IEC: 60947	Degree of protection provided by enclosures for low voltage switchgear and control gear.
e)	IS: 2544	Porcelain post insulators for systems with nominal voltages greater than 1000 Volts.
f)	IS: 2705	Current transformers.
g)	IS: 3156	Voltage Transformers
h)	IS: 6005	Code of practice for phosphating of iron and steel.
i)	IS: 5082	Specification for wrought aluminium and aluminium alloy bars, rods, tubes and selections for electrical purposes.
j)	IEC: 61850	Communication Standard for Numerical relays
k)	IEC: 61131-3	Automation Standard for Numerical relays
l)	IS: 9046	AC contactors for voltages above 1000 volts and upto and including 11000 Volts.

m)	IS: 13703	Low voltage fuses
n)	IS: 9385	HV fuses
o)	IS: 9431	Specification for indoor post insulators of organic material for system with nominal voltages greater than 1000 volts upto and including 300 kV
p)	IS: 9921	A.C. disconnectors (isolators) and Earthing switches for voltages above 1000 V
q)	IS: 11353	Guide for uniform system of marking and identification of conductors and apparatus terminals.
r)	IS: 13118	Specification for high voltage AC circuit breakers.
s)	IEC: 60099-4	Metal oxide surge arrestor without gap for AC system
t)	IEC: 62271-1	High-voltage switchgear and controlgear – Part 1: Common specifications for alternating current switchgear and controlgear
u)	IS/IEC: 62271-100	High voltage alternating current circuit breakers.
v)	IS/IEC: 62271-200	High voltage metal enclosed switchgear and control gear.
w)	IEC: 60947-7-1	Terminal blocks for copper conductors
x)	IS :513 (2008)	Cold Rolled Low Carbon Steel Sheets and Strips

5.2. TECHNICAL PARAMETERS

A. SYSTEM PARAMETERS		
a)	Nominal System voltage	6.6Kv/11kV/33kV or as per system
b)	Highest System voltage	6.9/12kV/36kV or as per system
c)	Rated Frequency	50Hz
d)	Number of phases/ poles	Three
e)	System neutral earthing	Solidly Earthed
f)	One minute power frequency withstand voltage(Without altitude correction)	
	- for Type tests	As per system requirement
	- for Routine tests	as per system
g)	1.2/50 microsecond Impulse withstand voltage (without altitude correction)	As per system requirement

h)	Minimum system fault level	As per system requirement
i)	Short time rating for bus bars, circuit breakers, current transformers and switchgear assembly.	As per system requirement
j)	Dynamic withstand rating	2.5 times of system fault current
k)	- Space heaters	240 V AC single phase with neutral solidly earthed
l)	Minimum/Maximum ambient air temperature	-20/50 deg. C
m)	Internal Arc testing	As per system fault current
n)	Insulation co-ordination shall be done as per IEC 60071-2 with respect to the altitude and ambient conditions of site.	

B. BUS BARS

a)	Continuous current rating at maximum ambient:	As Per Requirement
b)	Temper Rise allowed above maximum ambient	As per IEC 62271-1, 2017

C. SWGR. CUBICLE CONSTRUCTIONAL REQUIREMENTS

a)	Colour finish	
	Exterior	RAL9002 (Main body) RAL 5012 (Extreme end covers)
b)	Cable entry	
	Power Cables	Bottom
	Control Cables	Bottom
c)	Earthing conductor	Galvanized steel strip
d)	Service Continuity of swgrs (LSC2B-PM)	as per IS/IEC 62271-200

D. CIRCUIT BREAKERS

a)	The circuit breakers current rating shall be selected from the load current at an ambient temperature range.	
b)	Short circuit breaker Current	
	a) A.C. component	as per system requirement
	b) D.C. component	As per IS: 13118 or IEC-62271
c)	Short Circuit making current	2.5 times of system fault current (peak)
d)	Operating Duty	O-3 min-CO-3 min-CO
e)	Total break time	Not more than 4 cycles
f)	Total make time	Not more than 5 cycles
g)	Operating Mechanism	Motor wound spring charged stored energy type as per IEC-62271

E. CURRENT TRANSFORMER

a)	Secondary Current	1A
b)	Class of Insulation	Class E or better
c)	Rated output of each	Adequate for the relays and devices connected, but not less than five (5) VA.
d)	Accuracy class	
	Protection	Class PS for Differential & REF and Core Balance CTs (CBCT); 5P20 for other protection CTs;
	Measurement	0.2s class for Main outgoing feeder panel at main polling switchgear (solar plant end) and 0.5 class for other VCB panel
e)	Instrument Security Factor for Measurement CTs	5
f)	CT Ratio	CT ratio of each individual panels shall be decided during detailed engineering stage. Minimum CT primary side current shall be 110% of rated current.

F. VOLTAGE TRANSFORMERS		
a)	Rated Voltage Factor	1.2 continuous for all VTs, and 1.9 for 8 Hours for star connected VTs.
b)	Class of insulation	Class E or better
c)	Other parameters	BUS & Line PT-0.5 Class, 0.2CI for metering VA req. shall be adequate for application. 3P for door interlocks & protection, Additional open delta core with damping resistor shall be provided in all VT's to prevent damage on account of Ferro-Resonance conditions

5.3. SWITCHGEAR PANEL GENERAL CONSTRUCTION (OR AS PER SYSTEM REQUIREMENT)

- 5.3.1. The switchgear boards shall have a single front, single tier, fully compartmentalized, metal enclosed construction complying with clause No. 3.102 of IEC 62271-200, comprising of a row of free standing floor mounted panels. Each circuit shall have a separate vertical panel with distinct compartments for circuit breaker truck, cable termination, main busbars and auxiliary control devices. The adjacent panels shall be completely separated by steel / Aluzinc sheets except in bus bar compartments where insulated barriers shall be provided to segregate adjacent panels. The Service Class Continuity of Switchgears shall be LSC 2B-PM (as per IS/ IEC 62271-200). However, manufacturer's standard switchgear designs without inter panel barriers in busbar compartment may also be considered
- 5.3.2. The circuit breakers and bus VTs shall be mounted on withdrawable trucks which shall roll out horizontally from service position to isolated position. For complete withdrawal from the panel, the truck shall rollout on the floor or shall roll out on telescopic rails. In case the later arrangement is offered, suitable trolley shall be provided by the Bidder for withdrawal and insertion of the truck from and into the panel. Testing of the breaker shall be possible in isolated position by keeping the control plug connected.
- 5.3.3. The trucks shall have distinct SERVICE and ISOLATED positions. It shall be possible to close the breaker compartment door in isolated position also, so that the switchgear retains its

specified degree of protection. Circuit Breaker rack-in and rack-out from Service to Test, Test to Isolated position, or vice-versa shall be possible only in the compartment door closed condition. While switchboard designs with doors for breaker compartments would be preferred, standard designs of reputed switchgear manufacturers where the truck front serves as the compartment cover may also be considered provided the breaker compartment is completely sealed from all other compartments and retains the IP-4X degree of protection in the Isolated position. In case the latter arrangement is offered, the Bidder shall explain how this sealing is achieved and shall include blanking covers one for each size of panel per switchboard in his total Techno commercial bid price.

- 5.3.4. The switchgear assembly shall be dust, moisture, rodent and vermin proof, with the truck in any position SERVICE, ISOLATED or removed, and all doors and covers closed. All doors, removable covers and glass windows shall have gaskets all round with synthetic rubber or neoprene gaskets.
- 5.3.5. The control / relay compartments shall have degree of protection not less than IP 5X in accordance with IS/IEC 60947. However, remaining compartments can have a degree of protection of IP 4X. All louvers, if provided, shall have very fine brass or GI mesh screen. Tight fitting gaskets / gaskets are to be provided at all openings in relay compartment. Numerical Relays shall be fully Flush mounted on the switchgear panels at a suitable height.
- 5.3.6. Enclosure shall be constructed with rolled steel / Aluzinc sections. The doors and covers shall be constructed from cold rolled steel sheets of 2.0 mm or higher thickness. Gland plates shall be 2.5 mm thick made out of hot rolled or cold rolled steel sheets and for non-magnetic material it shall be 3.0 mm.
- 5.3.7. The switchgear shall be cooled by natural air flow.
- 5.3.8. Aux Supply: - DC supply shall be used for control and protection system of switchgear. In case UPS AC supply are considered for auxiliary control and protection supply for switchgear, then suitable rated AC/DC converter/power pack shall be used to meet the DC control supply requirement of switchgear panels.

5.4 CIRCUIT BREAKERS

- 5.4.1. The circuit breakers shall be of Vacuum type
- 5.4.2. They shall comprise of three separate, identical single pole interrupting units, operated through a common shaft by a sturdy operating mechanism.
- 5.4.3. Circuit breaker shall be restrike free, stored energy operated and trip free type. Motor wound closing spring charging shall only be acceptable. An anti-pumping relay shall be provided for each breaker, even if it has built-in mechanical anti-pumping features. An arrangement of two breakers in parallel to meet a specified current rating shall not be acceptable.
- 5.4.4. Plug and socket isolating Contacts for main power circuit shall be silver plated, of self-aligning type, of robust design and capable of withstanding the specified short circuit currents. Thickness of silver plating shall not be less than 10 microns.
- 5.4.5. Motor windings shall be provided with class E insulation or better. The insulation shall be given tropical and fungicidal treatment for successful operation of the motor in actual site condition.
- 5.4.6. Mechanical indicators shall be provided on the breaker trucks to indicate OPEN / CLOSED conditions of the circuit breaker, and CHARGED / DISCHARGED conditions of the closing

spring. An operation counter shall also be provided. These shall be visible without opening the breaker compartment door.

5.4.7. The closing coil and spring charging motor shall operate satisfactorily at all values of control supply voltage between 85% to 110% rated DC voltage. The shunt trip coil shall operate satisfactorily under all operating conditions of the circuit breaker upto its rated short circuit breaking current at all values of control supply voltage between 70% to 110% of rated DC voltage. The trip coil shall be so designed that it does not get energized when its healthiness is monitored by two indicating lamps (Red) and one trip coil supervision relay.

5.4.8. Circuit breaker shall be provided with inter pole barriers of insulating materials. The use of inflammable materials like Hylam shall not be acceptable.

5.5 CONTROLS AND INTERLOCKS

5.5.1. Rotary type Control switches shall be provided in each switchgear panel. The circuit breaker will normally be controlled from remote control panels through closing and shunt trip coils. The control switch and local control console of the relay flush mounted on the switchgear would normally be used only for testing of circuit breaker in isolated position, and for tripping it in an emergency.

5.5.2. The basic control scheme shall be developed in the numerical relay using programmable (soft) logics.

5.5.3. Facilities shall be provided for mechanical tripping of the breaker and for manual charging of the stored energy mechanism for a complete duty cycle, in an emergency.

5.5.4. Each panel shall have two separate limit switches, one for the Service position and the other for isolated position.

5.5.5. Auxiliary Contacts of breaker may be mounted in the fixed portion or in the withdrawable truck as per the standard practice of the manufacturer, and shall be directly operated by the breaker operating mechanism.

5.5.6. The contacts of all limit switches and all breaker auxiliary contacts located on truck portion and fixed portion shall be silver plated, rated to make, carry and break 1.0A 240V DC (Inductive) / 10A 240V AC. Contacts of control plug and socket shall be capable of carrying the above current continuously.

5.5.7. Movement of truck between SERVICE and ISOLATED positions shall be mechanically prevented when the breaker is closed. An attempt to withdraw a closed breaker shall not trip it.

5.5.8. Closing of the breaker shall be possible only when truck is either in TEST/ISOLATED or in-SERVICE position and shall not be possible when truck is in between.

5.5.9. Reverse blocking and Inter tripping shall be implemented in switchgear boards level. All required interlock shall be provided for safe operation of switchgears. Capacitive voltage detection or other alternative suitable arrangement (VT shall not be used) shall be used for outgoing feeder backdoor (cable chamber) open interlock.

5.6 NUMERICAL RELAYS AND NETWORKING

5.6.1. All circuit breaker feeders shall be provided with communicable numerical relays (IED, i.e. Intelligent Electronic Device) complying with IEC-61850, having protection, control,

measurement and monitoring features. These relays shall be networked and suitably interfaced with the Solar data monitoring and control system for dynamic SLD display, status monitoring, measurements, event / alarm displays, reports, etc. The relays shall be flush mounted on panel front with connections from the inside.

- 5.6.2. The numerical relay shall be capable of measuring and storing values of a wide range of quantities, events, faults and disturbance recordings.
- 5.6.3. All numerical relays shall have freely programmable optically isolated binary inputs (BI) and potential free binary output (BO) contacts as per the requirement of control schematics. The quantities of such input / outputs shall be finalized during detailed engineering.
- 5.6.4. All the numerical relays shall have communications on two ports, local front port communication to laptop and rear port on IEC 61850. All numerical relay shall have key pad / keys to allow relay settings from relay front. All hand reset relays shall have reset button on the relay front. Relay to be self or hand reset shall be software selectable. Manual resetting shall be possible from remote.
- 5.6.5. Master trip (86) and non-86 trips shall be software configurable to output contacts and no separate master trip relay shall be used.
- 5.6.6. All numerical relays shall have provision of both current and voltage inputs. Relays shall be suitable for both residually connected CT input as well as CBCT input. Number of CT inputs shall be adequate for protections detailed elsewhere but not less than 4 sets, 3 nos. for phase fault & 1 no. for earth fault. Relays shall be suitable for CT secondary current of 1A. All other feeders relays shall have provision for 3 VT inputs.
- 5.6.7. Relays shall have self-diagnostic feature with self-check for power failure, programmable routines, memory and main CPU failures and a separate output contact for indication of any failure.
- 5.6.8. All cards / hardware of numerical relays shall be suitable for operation in Harsh Environmental conditions with respect to high temperature, humidity & dust.

5.7 OTHER PROTECTIONS AND CONTROL FUNCTIONS IN THE RELAYS

- 5.7.1. The numerical relay shall be able to provide supervisory functions such as trip circuit monitoring, circuit breaker state monitoring, PT and CT supervisions and recording facilities with Post fault analysis.
- 5.7.2. The numerical processor shall be capable of measuring and storing values of a wide range of quantities, all events, faults and disturbance recordings with a time
- 5.7.3. stamping using the internal real time clock. Battery backup for real time clock in the event of power supply failure shall be provided.

5.8 BUSBARS AND INSULATORS

- 5.8.1. All Busbar and jumper connections shall be of high conductivity aluminium alloy. They shall be adequately supported on insulators to withstand electrical and mechanical stresses due to specified short circuit currents.

- 5.8.2. Busbar cross-section shall be uniform throughout the length of switchgear. Busbars and other high voltage connection shall be sufficiently corona free at maximum working voltage.
- 5.8.3. Busbar insulators shall be of arc and track resistant, high strength, non-hygroscopic, non-combustible type and shall be suitable to withstand stresses due to over-voltages, and short circuit current.

5.9 EARTHING AND EARTHING DEVICES

- 5.9.1. A copper / galvanized steel earthing bus shall be provided at the bottom and shall extend throughout the length of each switch board. It shall be bolted/ welded to the framework of each panel and each breaker earthing contact bar.
- 5.9.2. The earth bus shall have sufficient cross section to carry the momentary short-circuit and short time fault currents to earth as indicated under switchgear parameters without exceeding the allowable temperature rise.
- 5.9.3. Separate earthing trucks shall be provided by the Contractor for maintenance work. These trucks shall be suitable for earthing the switchgear busbars as well as outgoing / incoming cables or busducts. The trucks shall have a interlock to prevent earthing of any live connection.
- 5.9.4. As an alternative to separate earthing trucks the Bidder may also offer built-in earthing facilities for the busbars and outgoing / incoming connections, in case such facilities are available in their standard proven switchgear design. The inbuilt earthing switches shall have provision for short circuiting and earthing a circuit intended to be earthed. These switches shall be quick make type, independent of the action of the operator and shall be operable from the front of the switchgear panel. These switches shall have facility for padlocking in the earthed condition.

5.10 PAINTING

All sheet steel work shall be pretreated, in tanks, in accordance with IS: 6005.. The phosphate coating shall be "Class-C" as specified in IS: 6005. Finishing paint shade for complete panels excluding end covers shall be RAL9002 & RAL5012 for extreme end covers of all boards, unless required otherwise by the Employer.

5.11 INSTRUMENT TRANSFORMERS

- 5.11.1. All current and voltage transformers shall be completely encapsulated cast resin insulated type, suitable for continuous operation at the ambient temperature prevailing inside the switchgear enclosure, when the switchboard is operating at its rated load. The class of insulation shall be E or better.
- 5.11.2. All instrument transformers shall withstand the power frequency and impulse test voltage specified for the switchgear assembly. The current transformer shall further have the dynamic and short time ratings at least equal to those specified for the associated switchgear and shall safely withstand the thermal and mechanical stress produced by maximum fault currents specified when mounted inside the switchgear for circuit breaker modules.
- 5.11.3. Current transformers may be multi or single core and shall be located in the cable termination compartment. All voltage transformers shall be single phase type. The bus VTs shall be housed in a separate panel on a truck so as to be fully withdrawable.
- 5.11.4. All voltage transformers shall have suitable HRC current limiting fuses on both primary and secondary sides. Primary fuses shall be mounted on the withdrawable portion. Replacement of the primary fuses shall be possible with VT truck in isolated position.

5.12 SURGE ARRESTOR

The surge arrestors shall be provided as per system requirement and shall be of metal oxide, gapless type generally in accordance with IEC 60099-4 and suitable for indoor duty. These shall be mounted within the switchgear cubicle between line and earth, preferably in the cable compartment.

5.13 CONTROL SUPPLY AND SPACE HEATER SUPPLY

- 5.13.1. Each switchboard shall be provided at least two (02) Nos of DC feeders for the control supply.
- 5.13.2. In case two DC sources are provided, then suitable rated blocking diodes in both circuit has to be provided. Alternately Bidder can provide source selection switch.
- 5.13.3. One suitable rated 240V single phase AC supply feeder per switchboard / Switchboard section for space heater supply. Bidder shall provide necessary switch and fuse to receive, isolate and distribute to each panel.

5.14 SPACE HEATER

- 5.14.1. Each switchgear panel shall be equipped with thermostatically controlled space heater(s), suitably located in breaker and cable compartments to prevent condensation within the enclosure. The space heater shall be connected to 240V single phase AC auxiliary supply available in the switchgear, through switches and fuses provided separately for each panel.
- 5.14.2. A 240V single phase 50 Hz AC plug point shall be provided in the interior of each cubicle with ON-OFF switch for connection of hand lamp.

5.15 TYPE TESTS

- 1.01.01 All equipment to be supplied shall be of type tested design. During detailed engineering, the contractor shall submit for Owner's approval the reports of all the following type tests carried out not earlier *ten* years from the date of bid opening. These

reports should be for the test conducted on the equipment similar to those proposed to be supplied under this contract and the test(s) should have been either conducted at an independent laboratory or should have been witnessed by a client.

A)	Reports of the following type tests carried out on circuit breaker / circuit breaker panels, of each voltage class and current rating shall be submitted.
i)	Short circuit duty test on circuit breaker, mounted inside the panel offered along with CTs , bushing and seperators
ii)	Short time withstand test on circuit breaker, mounted inside panel offered together with CTs, bushings and separators.
iii)	Power frequency withstand test on breaker mounted in side panel.
iv)	Lightning impulse withstand test on breaker mounted in side panel.
v)	Temperature rise test on breaker and panel together. For this test, the test set up shall include three panels with breakers, the test breaker and panel being placed in the centre.
	The adjacent panels shall also be loaded to their rated current capacity. Alternatively the test panel may be suitably insulated at the sides, which will be adjoining to other panels in actual site configuration
vi)	Measurement of resistance of main circuit.
vii)	Mechanical operation test.
B)	Short circuit withstand test of earthing device (truck / switch).
C)	Testing to observe compliance to degree of protection, shall be checked for each switch board enclosure and busbar chambers during routine inspection shall be as under. IP -4X: It shall not be possible to insert a one (1) mm. dia steel wire into the enclosure from any direction, without using force. IP-5X: It shall not be possible to insert a thin sheet of paper under gaskets and through enclosure joints.

(a.)

D) Type test reports for the following tests on the model of the Numerical relays, Ethernet switches shall be submitted for employer's review		
S. No.	TEST ITEMS	Standard
i)	Dimensions of structure and visual inspection	IEC 60297-3-101
ii)	Functional requirements:	Relevant IEC 60255-100 series
	– Steady-state simulation	
	– Dynamic simulation	
iii)	Product safety requirements (including the dielectric tests and thermal short time rating)	IEC 60255-27
iv)	EMC requirements:	IEC 60255-26
	– Emission	
	– Immunity	
v)	Energizing quantities:	
	– Burden	N/A
	– Change of auxiliary energizing quantity	IEC 60255-11
vi)	Contact performance	N/A
vii)	Communication requirements	IEC 61850
viii)	Climatic environmental requirements:	IEC 60068-2-14, IEC 60068-2-1, IEC 60068-2-2,
	– Cold	
	– Dry heat	

	– Change of temperature	IEC 60068-2-78, IEC 60068-2-30, IEC 60255-27
	– Damp heat	
ix)	Mechanical requirements: – Shock	IEC 60255-21-1, IEC 60255-21-2, IEC 60255-21-3
	– Vibration	
	– Bump	
	– Seismic	
x)	Enclosure protection	IEC 60529, IEC 60255-27

PART-C
CIVIL WORKS for Ground mounted solar PV Projects

C-1 TOPOGRAPHY SURVEY AND SOIL INVESTIGATION

1.0 Topographical Survey

Bidder shall conduct the Topographical Survey for the allocated plot in the proposed solar project. The scope of work and technical specification for the same is as below:

1.1 Scope of Work

The Bidder shall carry out the Topographical Survey and prepare Plans (Survey Maps) and report of the entire area for locating the Solar PV Power plant and its other systems.

Carrying out the Benchmark (GTS) to site(s) under survey by parallel levelling, establishing and constructing benchmark, grid and reference pillars in the field and spot level survey of the entire area at specified intervals and development of the contours. Bidder can also use DGPS for establishing the coordinates.

2.0 Geotechnical Investigation

The scheme for geotechnical investigation shall be approved by Owner before execution. The Bidder shall carry out geotechnical investigation for establishing the sub-surface conditions and to decide type of foundations for the structures envisaged, construction methods, any special requirements/treatment called for remedial measures for sub-soil/ foundations etc. in view of soft sub-soils, aggressive sub-soils and water, expansive/swelling soils etc. prior to commencement of detailed design/drawings.

The Bidder shall obtain the approval of **geotechnical investigation scheme** for the field and laboratory testing before undertaking the geotechnical investigation work.

2.1 Foundation System

Foundation system for various facilities shall be designed and adopted as per approved geotechnical investigation report and relevant IS standard.

C-2 SITE LEVELLING AND GRADING

1.0 Site levelling and grading:

1.1 Site levelling works involves the following works:

- 1) Site levelling works/scheme shall match with the specific functional requirement of Solar PV optimum generation considering the full utilization of the plot area for the desired capacity.
- 2) Site grading level shall be fixed with due reference to site drainage of the whole area, existing drainage pattern and system requirements.
- 3) For Plant boundary wall and fencing.

1.2 Based on the spot level, contour survey done and meeting above requirements, bidder can propose different site grade levels. The site levelling may be carried in patches/blocks. Bidder may also propose the site leveling and grading matching with the **natural topography** of the land considering the optimized use of the land, however bidder shall ensure to meet the desired power generation capacity in the allotted plot area.

1.3 All buildings & switchyard area/sub-station area shall be constructed in levelled area. No foundation shall be allowed on back filled soil and in that case the depth of foundations shall reach up to NGL. Final Level will be approved in detail engineering.

1.4 Cutting, Clearing, transporting and disposal of bushes, other vegetation, roots, stubs etc. for site preparation and levelling.

2.0

C-3 BOUNDARY WALL, FENCING AND GATE

1. General

The scope of work includes providing MS Angle poles (min. 50x50x6 mm, 600 mm below ground, grouted in M25 concrete @ 2.5m C/C) with galvanized barbed wire fencing (9 lines) of height 2.1m, exit and entry gates as approved by Engineer in charge and as per latest CPWD Specification.

C-4 DESIGN OF MODULE MOUNTING STRUCTURE & CIVIL WORKS

1. Design criteria for module mounting structure (MMS)

The design calculations and drawings for MMS shall as per relevant Indian standards be submitted for prior approval of Engineer in Charge.

2. Design Parameters:

A. MMS design & analysis to be done on computer software (preferably STAAD) and the Bidder shall submit a write-up on the computer program used and its input (soft format) and output data for review and approval.

B. An increase in allowable stresses of structural materials should not be considered during design and analysis.

C. Wind pressure for following loads shall be considered as follows:

- (1) Dead Load of steel with all members, fittings & panels.
- (2) Load due to fair wind direction on design tilt angles of solar mounting structural members.
- (3) Load due to adverse wind direction on design tilt angles of solar mounting structural members.
- (4) Load on the side face of mounting structural members.

D. Wind pressure coefficient, load and load combination shall be as per Indian standards (latest revision) such as IS: 875, IS: 800, IS 801.

3. Vertical Deflection and Horizontal Sway Limits:

Limiting Deflection: The limiting permissible vertical deflection for structural steel members shall be as per following:

- a) Maximum vertical deflection in purlin = Span / 180,
- b) Maximum vertical deflection in rafter (cantilever span) = Span / 180 and
- c) Maximum lateral deflection in column/vertical post = Height / 240
- d) All deflection limits can also be as per the serviceability limit defined by the module manufacturer & tracker manufacturer OR the proposed deflection limits duly approved by the module manufacturer during detailed engineering.

4. Materials Specification & Coating for Structural Steel Works:

A. Hot-rolled/Cold-formed steel sections:						
Members	Reference code	Yield strength, min, MPa	Non-Coastal		Coastal Area	
			Coating, Reference code	Min Thickness (mm)	Coating Reference code	Min Thickness (mm)
Column/ Vertical Post	IS 2062 /	250	70 micron	2.0	110 micron	3.0

Bracing/Rafter/Beam/Purlin	IS 1079		(IS 4759) (minimum)	2.0	(IS 4759) (minimum)	2.0
Steel Tubes in all sections	IS 1161	240		2.0		
Hollow Steel in all sections	IS 4923	240		2.0		
Coupler/Plate/Clamp Splice/Sag Angle	IS 2062	250		2.0		
		Yield strength, MPa	Coating Class Designation			
Rafter/ Beam/ Purlin (Pre-Galvanized steel sections)	ASTM A653M/ IS 1079	255-550	Z600 (ASTM A653M/ IS 277)	1.6	Not recommended in coastal areas	
NOTE:	1. Minimum elongation % shall be as per relevant Standard and Code. 2. Materials shall be fabricated in the shop. 3. Minimum coating requirement mentioned above in the table. 4. All structural calculations of cold formed steel section for checking the adequacy for strength and deflection criteria is to be done taking into consideration the maximum permissible negative tolerance over specified BMT i.e, the lower limit of BMT is to be considered. 5. The tolerance on Base Metal Thickness (BMT) thickness of steel shall be as given in IS 1852.					

B. Hot-dip Aluminium-Zinc alloy metallic coated sheet steel strip and sheet sections:					
Members	Reference code	Yield strength, MPa	Coating Class Designation	Min Thickness (mm)	Coastal Area
Rafter/ Beam	ASTM A792M/ IS 15961	250 - 550	AZM 165 (ASTM A792M) / (IS 15961)	1.2	Not recommended in coastal areas
Purlin	ASTM A792M/ IS 15961	250 - 550	AZM165 (ASTM A792M) / (IS 15961)	0.9	Not recommended in coastal areas
NOTE:	1. Minimum elongation % shall be as per relevant Standard and Code. 2. Materials shall be fabricated in the shop. 3. Minimum coating requirement mentioned above in the table. 4. All structural calculations of cold formed steel section for checking the adequacy for strength and deflection criteria is to be done taking into consideration the maximum permissible negative tolerance over specified BMT i.e, the lower limit of BMT is to be considered. 5. The tolerance on Base Metal Thickness (BMT) thickness of steel sheets and coils shall be as given in IS/ISO 16163				

Painting of

Steel Surfaces embedded in Concrete : For the portion of Steel surfaces completely embedded in Concrete as reinforcement or otherwise for foundation systems, the surface shall be prepared by Manual Cleaning and provided with Primer Coat of Chlorinated Rubber based Zinc Phosphate Primer of Minimum 50 Micron Dry Film Thickness (DFT).

Bidder shall also use principles governing design that shall prevent or reduce the risks of corrosion as per IS 9172 and other relevant IS codes.

5. Connections:

SI No	Connection	Grade
1	Solar PV module to purlin/structure connection.	SS304, A2-70
2	Bolts required to loose and tighten seasonally for seasonal tilting in the module mounting structure.	
3	Other structural fixed connections.	HDG 5.6 & 8.8
4	Foundation Anchoring.	HDG 4.6

Note: Fastener shall conform to IS 1367

- A. SS304 Fasteners (nuts, bolts, washers and U-bolts) shall be of corrosion-resistant austenitic steel. SS 304 Fasteners shall have a good anti-seize finish with proper wax coating for better durability and firm resistance to all types of failure including seasonal removal and re-fixing of bolts.
- B. All fasteners shall be provided according to the connection design requirement. All bolts shall be tightened with designed torque mechanically immediately after the erection of MMS to avoid any possible damage due to any incidental storm during the erection stage.
- C. One set of fasteners shall consist of one hexagonal head nut, one hexagon shape bolt, and two washers. The bolts and nuts with inbuilt washers may also be provided.
- D. In the ground mounting structure system with seasonal tilt arrangement, the column post and rafter/beam at seasonal tilt point of rotation shall be preferably hinged plate and bolt system.

6. Foundation System

Top of concrete/ height of collar for MMS foundation shall be minimum 300mm above Finish ground level. The proposed foundation system for MMS shall be based on findings/results of the approved geo technical investigation report. Following kind of foundation may be provided:

1. Short pile foundation (Min. 300mm dia.)
2. Rock anchor with concrete collar (Min. 700 sq.cm.)
3. Isolated, strip or raft foundation
4. Concrete ballast foundation

7. List of applicable Indian standards

IS 2062 - Hot Rolled Medium and High Tensile Structural Steel.
 IS 811 - Cold Formed Light Gauge Structural Steel Sections.
 IS 1161- Steel Tubes for Structural Purposes.
 IS 4923 - Hollow steel sections for structural use.
 IS 4759 - Hot-dip zinc coatings on structural steel and other allied products
 IS 4736 - Hot-dip zinc coatings on mild steel tubes
 IS 1868 - Anodic coatings on aluminium and its alloys.
 IS 2629 - Recommended practice for hot-dip galvanizing of iron and steel.
 IS 15961 - Hot dip aluminium-zinc alloy metallic coated steel strip and sheet (plain)
 IS 9172 -Recommended design practice for corrosion prevention of steel structures.

C-5 CIVIL & STRUCTURE WORKS - GENERAL DESIGN CRITERIA

1.0 General

The layout, design and drawings for Buildings, Structure and foundation system shall be approved from NVVN before the start of works. Design of RCC and Steel structures shall be carried out as per IS 456 and IS 800 respectively. Refer appendix-D1 for site specific design parameters.

2.0 Inverter Cum Control Room & Security Room

The following structures shall be designed and provided by the bidder, wherever required as per site conditions and as per instruction of EIC.

A. Inverter cum Control Rooms: The rooms consist of PCU's, LT panels, batteries, etc. shall be provided based on manufacturer recommendation, easy passage of O&M persons and cable trench layout required.

The room(s) shall be made through any of the options as mentioned below:

- a) RCC framed structure with bricks/concrete blocks masonry walls,
- b) Pre-Engineered Building in line with PEB Tender drawing & technical specification (IR PEB shall be provided only in **non-coastal area**),
- c) Steel Containerized solutions on elevated RCC Platform.

The battery and its associated equipment shall be suitably segregated inside the Inverter room with proper ventilation arrangement.

The equipment inside the inverter room shall be placed to provide sufficient space for their maintenance.

B. Security Room : Prefabricated security room or brick/stone masonry with RCC slab/CGI sheet near the entry of the main gate.

C. Toilet: The toilet room shall be made of brick/stone masonry with water facility.

Finish floor level of all building/rooms shall be minimum 450 mm above from Finish graded level.

2.1 SPECIFICATION FOR RCC BUILDINGS AND OTHER RCC/MASONRY STRUCTURE.

Any building if made of RCC framed structure with bricks/concrete blocks masonry walls will be made in line with provisions of IS 456. The thickness of outer masonry walls shall be minimum 230mm in case of bricks and minimum 200mm thick in case of concrete blocks. The roof shall be designed for a minimum superimposed load to 150 kg/m². The bidder shall also provide rainwater harvesting system at all RCC building roofs (if provided).

3.0 GENERAL CIVIL WORKS

3.1 REINFORCED CONCRETE STRUCTURE, ALLIED WORKS AND FOUNDATION

- a) All RCC works shall be designed mix as per IS 456 (2000). For structural concrete items, Ordinary Portland cement (43 Grade) conforming to IS: 8112 and Fly ash-based Portland pozzolana cement conforming to IS: 1489 (Part-1) shall be used for superstructure. Type of cement for sub-structures shall be decided based on the approved geotechnical Investigation
- b) Coarse aggregate for concrete shall be crushed stones chemically inert, hard, strong, durable against weathering of limited porosity and free from deleterious materials. It shall be properly graded. It shall meet the requirements of IS: 383.
- c) Sand shall be hard, durable, clean and free from adherent coatings of organic matter and clay balls or pellets. Sand, when used as fine aggregate in concrete shall conform to IS: 383. For plaster, it shall conform to IS: 1542 and for masonry work to

IS: 2116.

d) Reinforcement steel:

Non-coastal area	Coastal area
Reinforcement steel shall be of high strength deformed TMT steel bars of grade minimum Fe-415 and shall conform to IS: 1786. Ductile detailing in accordance with IS: 13920 shall be adopted for superstructure and substructure of all RCC buildings/structures	Reinforcement steel shall be of high strength deformed TMT steel bars with corrosion inhibitors, Corrosion Resistant Steel (CRS) re-bars, Fusion Bonded Epoxy Coated (FBEC) re-bars or Zinc Coated re-bars of grade minimum Fe-415 shall conform to IS: 1786. Ductile detailing in accordance with IS: 13920 shall be adopted for superstructure and substructure of all RCC buildings / structures. Dense concrete around reinforcement, provision of thick covers, and addition of corrosion protection with re-bars shall be provided to the RCC structures

- e) The following minimum grades of concrete for design mix and nominal mix shall be adopted for the type of structures noted against each unless not specified elsewhere.

Grade as per IS 456	Non-coastal area	Coastal area
M30	-	All RCC structural elements above and below ground level, precast concrete, transformer foundation, Equipment foundation, cable trench, oil pit, Grade Slab, Paving, culverts, road and MMS Foundation.
M25 (in-situ concrete) M30 (Precast)	All RCC structural elements above and below ground level, precast concrete, MMS foundation, cable trench, oil pit, Grade Slab, Paving, culverts	-
M25	Fencing work.	Fencing work, Base slab of drains. Plain Concrete Cement.
M25	Base slab of drains.	
M15	Plain Concrete Cement.	

The bidder shall carry out the design mix of M-30 and M-25 grade concrete on priority. The design mix shall be approved from NVVN / before the start of work.

In case Geotechnical investigations require any special kind of cement or higher grade of concrete, the same shall be provided. The foundation system shall be made which transfer loads safely to the soil for the module mounting structures, depending on soil conditions, geographical condition, regional wind speed, bearing capacity, slope stability etc. All foundation system and foundation depth shall be decided based on the approved geotechnical investigation report. No foundation allowed on back filled soil and the foundation depth to reach upto natural ground level (NGL).

f) All loads shall be considered in line with IS: 875. Seismic loads for design shall be in accordance with IS: 1893 and relevant Standards.

g) IS: 2502 Code of Practice for Bending and Fixing of Bars for concrete Reinforcement must complied for reinforcements. IS 5525 and SP 34 shall be followed for reinforcement

detailing.

h) A minimum 75 mm thick PCC shall be provided below RCC wherever RCC structure is laid over the ground. Proper and sufficient formwork/shuttering shall be provided for the required period as per IS 456.

3.2 Masonry Work

- a) Brickworks shall be using at least class designation 7.5 of approved quality as per IS: 1077, IS: 2212 and IS: 3495. Concrete blocks shall be of a minimum compressive strength of 7.5 N/mm² and shall be of Grade-A as per IS: 2185. Stone masonry work with hard stone in building works, foundation, plinth and drains shall be Coursed Rubble or Random Rubble masonry work with the stone of good quality and durability. The masonry surface shall be plastered with minimum 18mm plaster in case of CMCS walls. The stone masonry work shall be in line with IS: 1597, IS: 1122 and IS: 1126.
- b) The cement mortar for all kind of masonry work shall be in the ratio 1 cement and 6 sand by weight.
- c) Bricks/blocks required for masonry work shall be thoroughly soaked in the clean water tank for approximately two hours. Brick shall be laid in English bond style. Green masonry work shall be protected from rain. All masonry work shall be kept moist on all the faces for a period of seven days.
- d) Bricks of class designation 5.0 N/mm² and 3.5 N/mm² may be permitted to have slight distorted & rounded edges provided no difficulty shall arise on this account in laying of uniform courses in non-load bearing structures and shall be subject to the approval of NVVN. Tolerances on dimensions up to +/- 8% shall be permitted. Dimension test to be carried out as per IS code.
- e) The external wall for the building shall be 230 mm thick walls and internal wall 230/115 thick as per requirements. The external wall of CMCS facing the transformer area shall be as per IS: 1646 - Code of practice for fire safety of buildings (general): electrical installations.
- f) The suitable damp proof course shall be provided the proportion of cement, sand & aggregate shall be 1:2:4 using 6 mm down stone chips with a waterproofing admixtures. The thickness of the damp-proof course shall be minimum 40 mm.

3.3 Plastering

All external surfaces shall have 18 mm cement plaster in two coats, under layer 12 mm thick cement plaster 1:5 and finished with a top layer 6 mm thick cement plaster 1:6 (DSR 2013-13.11). White cement primer shall be used as per the manufacturer's recommendation.

At least one coat of plaster shall be applied to interior walls by hand or mechanically, to a total thickness of 12 mm using 1:6, 1 cement and 6 sand. Plastering shall conform to IS 1542, IS 1661, IS 1630. Oil bound washable distemper on smooth surface applied with minimum 2 mm thick Plaster of Paris putty for the control room. Plaster of Paris (Gypsum Anhydrous) conforming to IS: 2547 shall be used for plaster of Paris punning.

3.4 Water Supply

GI pipes of Medium quality conforming to IS 1239 (Part I-1990) or CPVC pipes conforming to IS 15778 shall be used for all portable hot and cold-water distribution supply and plumbing works.

The Syntax or equivalent make PVC storage water storage tank conforming to IS: 12701 shall be provided over the roof of the CMCS with adequate capacity for 10 No person and 24-hour requirement, complete with all fittings including float valve, stopcock etc. The capacity of the tank shall be minimum 500 litres.

3.5 Grouting

Cement mortar (1:2) grout with non-shrink additives shall be used for grouting below base plate of a column. The grout shall be high strength grout having a minimum characteristic compressive strength of min 30 N/mm² at 28 days.

3.6 Structural Steel

Structural steel design shall be carried out as per IS 800 and IS 801. Structural steel shall conform IS 2062 / IS 1079 or equivalent, Pipe shall be as per medium/high grade of IS 1161, Chequered plates shall conform to IS 3502 and Hollow steel sections for structural use shall conform to IS 4923.

3.7 Structural Steel/Steel Sheet Painting

All non-hot dip galvanised structural steel (excluding Module Mounting & SCB structure)/ Outdoor metal containers/ Enclosure/ Rolling shutter items shall be provided with paint designed for a minimum maintenance-free life of fifteen (15) years (high durability) as per **ISO 12944 and IS 800 or equivalent for its corrosion category**. For finishing coat suitable colour pigment shall be added. All paints including primer shall be of the reputed brand/manufacturer and as approved by the Engineer-In-charge. The method of application shall be as per the recommendations of the manufacturer. For corrosive category of refer appendix of site-specific data.

4.0 Transformer Yard and Metering Yard Civil Works

- a) Transformer and equipment's foundations shall be founded on piles/isolated spread footings depending on the final geotechnical investigation report. Metering yard equipment's structures shall be designed as per IS 801 and IS 800.
- b) Transformer foundations shall have its own pit which would cover the area of the transformer and cooler banks, so as to collect any spillage of oil or oil drainage in case of emergency. The oil pit shall be filled with granite stones of 40 mm size uniformly graded.
- c) The bidder can propose soak pit under Transformer or Burnt oil pit at a distance connected to transformer soak pit depending upon oil quantity in Transformers. It shall be sized to accommodate the oil volume of the transformer connected to it, without backflow. The Gravel-filled level under transformer shall be in accordance with FGL outside pit and transformer bottom level.
- d) The area around the transformer and equipment's shall be covered with gravel

5.0 PLANT DRAINAGE SYSTEM

- a) All Drains within a plot are in Bidder's Scope
- b) The drainage scheme shall be designed considering the catchment areas contributing to the existing drains, solar plant gradients and solar PV array layout. As per plant drainage requirement, a network of open drains shall be designed & provided to carry surface runoff.
- c) Bidders can also propose suitable detention pond, recharge dugwells, recharge pits, recharge trenches, and recharge soakways for quick disposal of storm water in the vicinity of the solar block/plot.
- d) All Buildings shall be provided with plinth protection all around, sloped towards side drains. Plinth Protection shall be 75mm mm thick PCC laid over well compacted 75mm well grades brick ballast base. Building peripheral drains shall be stone masonry/brick masonry/concrete works. These side drains shall be connected to area drains by either open drains or combination of open drains and underground pipes.

6.0 ELECTRIFICATION OF BUILDING

Electrification of all building shall be carried out as per IS 732-1989, IS: 4648-1968 and other relevant standards.

7.0 LIST OF APPLICABLE INDIAN STANDARDS

Indian codes, and/or standards shall govern, in all the cases wherever they are available. In case of a conflict between such codes and/or standards and the specifications, the stringent provisions shall govern. Such codes and/or standard referred to shall mean the latest revision, amendments/changes adopted and published by the relevant agencies. In case of any further conflict in this matter, the same shall be referred to the Engineer-in-charge, whose decision shall be final and binding.

Other internationally acceptable standards shall be accepted, only if, no Indian Standards are existing. However, other standards also will be accepted if the Bidder establishes that the works are meeting the requirements of Indian Standards also.

A brief list of Indian Standards applicable to these works is as below:

General

IS: 875-I	Code of Practice for Design Dead Loads for Building and Structures
IS: 875-II	Code of Practice for Design Imposed Loads for Building and Structures
IS: 875-III	Code of practice for design loads (other than earthquake) for buildings and structures.
IS: 1893	Criteria for earthquake resistant design of structures.
IS: 4326	Code of Practice for earthquake resistant design and construction of buildings

Foundations

IS: 1080	Code of practice for design and construction of shallow foundations in soils (other than raft, ring and shell)
IS: 1904	Code of practice for structural safety of building foundations
IS: 2950	Code of practice for design and construction of raft foundations.
IS: 4091	Code of Practice for Design and Construction of Foundations for Transmission Line Towers and Poles
IS: 6403	Code of Practice for determination of bearing capacity of shallow foundations
IS: 8009	Code of Practice for foundation settlement calculations
IS: 2911	Design & Construction of Pile Foundation – Code of Practice

Concrete Structures

IS: 456	Code of practice for plain and Reinforced concrete
IS: 3370	Code of practice for concrete structures for the storage of liquids.
IS: 3414	Code of Practice for design and installation of joints in buildings
IS: 5525	Recommendation for detailing of reinforced concrete works
IS: 6313	Code of practice for anti-termite measures in buildings
IS: 13920	Ductile detailing of Reinforced Concrete Structures subjected to Seismic forces
IS: 1904	Code of practice for design and construction of foundations in soils general requirements

Steel Structures

IS: 800	Code of practice for use of structural steel in general building construction
IS: 801	Code of practice for use of cold-formed light gauge steel structure members
IS: 802	Code of Practice for use of Structural Steel in over Head Transmission Line Towers.
IS: 806	Code of practice for use of steel tubes in general building construction.
IS: 808	Dimensions for hot rolled steel beam, column channel and angle section
IS: 811	Specification for Cold Formed Light Gauge Structural Steel Sections
IS: 813	Scheme of symbols for welding

IS: 1079	Hot Rolled carbon Steel Sheet and Strip – Specification
IS: 2062	Hot Rolled Medium and High Tensile Structural Steel – Specification
IS: 4923	Hollow steel sections for structural use.
IS 1161	Steel tubes for structural purpose
IS: 2721	Galvanised steel chain link fence fabric – Specification

Painting and Coating

IS: 4736	Hot-dip zinc coatings on mild steel tubes
IS: 4759	Hot-dip zinc coatings on structural steel and other allied products – Specification
IS:1868	Anodic coatings on aluminium and its alloys
IS 2395-I	Painting of Concrete, Masonry and Plaster Surfaces – Code of: Operations and Workmanship
IS 2395-II	Code of practice for painting concrete, masonry and plaster surfaces: Schedule
IS 1477-I	Code of Practice for Painting of Ferrous Metals in Buildings: Pre-treatment
IS:1477-II	Code of practice for painting of ferrous metals in buildings: Painting
ISO 12944-1	Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Part 2: Classification of environments
ISO 12944-5	Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Part 5: Protective paint systems

Water supply and sanitary

IS: 1239	Mild steel tubes and tubulars and other wrought steel fittings
IS: 1172	Code of basic requirements for water supply, drainage and sanitation
IS: 1742	Code of Practice for building drainage
IS: 2527	Code of practice for fixing rainwater gutters and down pipes for roof drainage.
IS: 15778	Chlorinated polyvinyl chloride pipes for potable hot and cold water distribution supplies
IS: 16088	Chlorinated polyvinyl chloride pipes for automatic sprinkler fire extinguishing system
IS: 10124	Fabricated PVC fittings for potable water supplies
IS: 4985	Un-plasticized PVC pipes for potable water supplies
IS: 13592	Un-plasticized Polyvinyl Chloride (PVC-U) Pipes for Soil and Waste Discharge System Inside and Outside Buildings Including Ventilation and Rainwater System
IS: 12818	Un-plasticized polyvinyl chloride (PVC-U)screen and casing pipes for bore/tubewell
IS: 2470	Code of Practice for installation of septic tanks

Lining

IS 3872	Lining of Canals with Burnt Clay Tiles - Code of Practice.
IS 3873	Laying cement concrete/stone slab lining on canals - Code of practice.
IS 4515	Stone Pitched Lining for Canals - Code of Practice.
IS 7113	Soil-Cement Lining for Canals - Code of Practice.
IS 7873	Code of practice for lime concrete lining for canals.
IS 9097	Guide for laying lining of canals with hot bitumen or bituminous felts.
IS 10430	Criteria for Design of Lined Canals and Guidance for Selection of Type of Lining.
IS 10646	Canal linings - Cement concrete tiles.
IS 11809	Lining for canals by stone masonry - Code of practice.
IRC:SP:50	Guidelines on urban drainage.

Miscellaneous

IS: 1905	Code of Practice for structural use of un-reinforced masonry
IS: 3067	Code of Practice for general design details and preparatory works for damp proofing and water proofing of buildings
SP: 6	Handbook for structural engineers (all parts)
SP: 7	National Building Code of India
SP: 16	Design Aids for reinforced concrete to IS:456
SP: 20	Handbook on masonry design and construction
SP: 22	Explanatory handbook on codes for earthquake engineering
SP: 24	Explanatory handbook on Indian Standard Code of Practice for plain and reinforced concrete
SP: 25	Handbook on causes and prevention of cracks in buildings
SP: 32	Handbook on functional requirements of industrial buildings
SP: 34	Handbook of concrete reinforcement & detailing
IRC: 37	Guidelines for design of flexible pavements
IRC: 42	Guidelines on Road Drainage
IRC: 58	Guidelines for the design of rigid pavements for highways
IRC: 73	Geometric design of roads

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



BIDDING DOCUMENTS

FOR

**DEVELOPMENT OF 17491 KW GRID CONNECTED
ROOFTOP & GROUND MOUNTED SOLAR PROJECTS
AT VARIOUS LOCATIONS OF CENTRAL ARMED
FORCES AND DEPARTMENTS UNDER MINISTRY OF
HOME AFFAIRS AND MINISTRY OF POWER - ZONE 5
(ASSAM, ARUNACHAL PRADESH, TRIPURA,
MANIPUR, NAGALAND, MIZORAM, MEGHALAYA)**

SECTION – VII
BOOK 1 OF 2

BIDDING DOCUMENT NO.: NVVN/C&M/RE-314/2024-25

(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).

TABLE OF FORMS AND PROCEDURES

Sl.No.	Description
Section-VII (Part 1 of 2)	
1a.	Techno-Commercial Bid (Envelope-1) (Bid Form for Envelope-I and Envelope-II along with Attachments for Envelope-I)
1b.	Price Bid (Envelope-2) (Attachments for Envelope-II and Price Schedules)

BIDDER MAY TAKE NOTE OF THE FOLLOWING POINTS WHILE SUBMITTING ITS BID

- ~~□ BIDDERS ARE REQUIRED TO FURNISH REQUISITE DETAILS IN THE FORMATS SPECIFIED IN THE BIDDING DOCUMENTS FOR MEETING THE STIPULATED QUALIFYING REQUIREMENTS (QR)~~
- ~~□ IN CASE OF EXTENSION OF TECHNO-COMMERCIAL BID OPENING DATE, BIDDER TO FURNISH AUDITED ANNUAL REPORTS ALONG WITH ITS BID AS PER EXTENDED DATE OF TECHNO-COMMERCIAL BID OPENING TO MEET THE STIPULATED FINANCIAL QR CRITERIA.~~
- POWER OF ATTORNEY DULY AUTHORISED BY A NOTARY PUBLIC INDICATING THAT THE PERSON(S) SIGNING THE BID HAS/HAVE THE AUTHORITY TO SIGN THE BID AND THE BID IS BINDING UPON THE BIDDER DURING THE FULL PERIOD OF ITS VALIDITY BACKED BY A COPY OF BOARD RESOLUTION/ OTHER RELEVANT DOCUMENTS TO DEMONSTRATE THE AUTHORITY OF THE PERSON ISSUING THE POWER OF ATTORNEY TO BE FURNISHED ALONG WITH THE BID.
- POWER OF ATTORNEY TO THE AUTHORISED SIGNATORY OF THE BIDDER FOR SIGNING OF BID AND DJU/JV AGREEMENT ETC., WHEREVER APPLICABLE, TO BE SUBMITTED ALONG WITH BID AND SHOULD BE DATED NOT LATER THAN THE DATE OF SIGNING THE BID.
- BIDDER TO ENSURE THAT BID SECURITY / DJU/ JV AGREEMENT (AS APPLICABLE) TO BE SUBMITTED IN ORIGINAL STRICTLY AS PER SPECIFIED FORMATS DULY SIGNED IN ORIGINAL BY AUTHORIZED SIGNATORY AND STAMPED ON EACH PAGE. SCANNED/ PHOTOCOPY OF THESE DOCUMENTS WITHOUT SIGNATURE IN ORIGINAL SHALL NOT BE ACCEPTABLE AND SHALL BE SUMMARILY REJECTED.
- DATE OF PURCHASE OF STAMP PAPER OF INSTRUMENTS LIKE BID SECURITY, DEED OF JOINT UNDERTAKING ETC SHOULD BE ON OR BEFORE THE DATE OF EXECUTION OF SUCH INSTRUMENTS.

1a. BID FORM

ENVELOPE-1 (TECHNO-COMMERCIAL) & ENVELOPE-2 (PRICE)

BID FORM

BID FORM (ENVELOPE-1 (TECHNO-COMMERCIAL) & ENVELOPE-2 (PRICE))

Date:

Bid Document No. : NVVN/C&M/RE-314/2024-25

Name of Package : DEVELOPMENT OF 17491 KW GRID CONNECTED ROOFTOP & GROUND MOUNTED SOLAR PROJECTS AT VARIOUS LOCATIONS OF CENTRAL ARMED FORCES AND DEPARTMENTS UNDER MINISTRY OF HOME AFFAIRS AND MINISTRY OF POWER - ZONE 5 (ASSAM, ARUNACHAL PRADESH, TRIPURA, MANIPUR, NAGALAND, MIZORAM, MEGHALAYA)

To

SR.MGR(C&M)
NTPC VIDYUT VYAPAR NIGAM LIMITED
2nd Floor, Core 5, Scope Complex,
Institutional Area, Lodi Road,
New Delhi – 110003, India

Gentlemen and/or Ladies,

1.0 Having examined the Bidding Documents including subsequent Amendment(s)/ Clarification(s)/ Addenda/ Errata (if any), the receipt of which is hereby acknowledged, we, the undersigned, offer to design, manufacture, test, deliver, install and commission (including carrying out Performance Guarantee Test) the facilities under the above-named Package in full conformity with the said Bidding Documents for the sum as mentioned in the Bill of Quantity (BOQ in excel sheet) of Bid Invitation at e-Tender Portal in accordance with the terms and conditions of the Contract.

1.1 We further understand that discount letter, if any, separately uploaded online or submitted in physical form shall not be considered for the purpose of evaluation.

2.0 COMPLIANCE TO THE PROVISIONS OF THE BIDDING DOCUMENTS

2.1 We have read all the provisions of the Bidding Documents and confirm that notwithstanding anything stated elsewhere in our bid to the contrary, the provisions of the Bidding Documents, are acceptable to us and we further confirm that we have not taken any deviation to the provisions of the Bidding Documents anywhere in our bid.

Any deviation, variation or additional condition etc. or any mention, contrary to the provisions of Bidding Documents and its subsequent Amendment(s)/ Clarification(s)/Addenda/Errata (if any) found anywhere in our bid proposal, implicit or explicit shall stand unconditionally withdrawn, without any cost implication whatsoever to the Employer, failing which our bid shall be rejected and our Bid Security shall be forfeited.

2.2 We further declare that additional conditions, variations, deviations, if any, found anywhere in the proposal, shall not be given effect to.

3.1 We are aware that the BOQ/Price Schedules do not generally give a full description of the work to be performed under each item and we shall be deemed to have read the Technical Specifications, Drawings and other Sections of the Bidding Documents to ascertain the full scope of work included in each item while filling in the rates and prices. We agree that the entered rates and prices shall be deemed to include the full scope as aforesaid, including overheads and profit.

- 3.2 We declare that prices left blank in the BOQ/Price Schedule (excel sheet) will be deemed to have been included in the prices of other items. The TOTAL for each Schedule/item and the Grand TOTAL as mentioned in BOQ/Price Schedule (excel sheet) shall be deemed to be the total price for executing the Facilities in complete accordance with the Contract, whether or not each individual item has been priced.
- 4.0 We undertake, if our bid is accepted, to commence work on the Facilities immediately upon your Notification of Award to us and to achieve Completion of Facilities and conduct Guarantee Test (as applicable) within the time specified in the Bidding Documents.
- 5.0 If our bid is accepted, we undertake to provide Advance Payment Security, Contract Performance Securities and securities for Deed(s) of Joint Undertaking (as applicable) in the form and amounts and within the times specified in the Bidding Documents.
- 6.0 Until a formal Contract is prepared and executed between us, this bid, together with your written acceptance thereof in the form of your Notification of Award shall constitute the formation of the contract between us.
- 7.0 We understand that you are not bound to accept our bid or any other bid you may receive.
- 8.0 We, hereby, declare that only the persons or firms interested in this proposal as principals are named here and that no other persons or firms other than those mentioned herein have any interest in this proposal or in the Contract to be entered into, if the award is made on us, that this proposal is made without any connection with any other person, firm or party likewise submitting a proposal, is in all respects for and in good faith, without collusion or fraud.
- 9.0 We have read the ITB clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on subcontracting to contractors from such countries. We certify that we/our Collaborator/JV Partner/Consortium member/Assignee are/is not from such a country or, if from such a country, have/has been registered with the Competent Authority and we will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority.

*Further, we certify that we do not have any TOT arrangement requiring registration with the competent authority.

Or

*Further, we certify that we have valid registration in respect of TOT arrangement with the competent authority to participate in this procurement.

We hereby certify that we fulfill all requirements in this regard and are eligible to be considered.

***We further confirm that evidence of valid registration by the Competent Authority for us/our Collaborator/JV Partner/Consortium member/Assignee, as applicable, is enclosed as Annexure... **....**

*** Bidder to strike-off, whichever is not applicable.**

**** Bidder to mention the Annexure no.**

10.0 ***(i)** We confirm that we fulfill the requirements of Local content for Class-I local supplier.

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R

***(i)** We confirm that we fulfill the requirements of Local content for Class-II local supplier.

The details of the location(s) at which the local value addition is made are as under:

Sl.No.	Description of Goods & Services	Details of the location(s) at which the local value addition is made

(ii) We confirm that we fulfill the requirements of Local content for Class-I local supplier for Item(s) mentioned at Technical Specification, as applicable. We further confirm that in case such item(s) are bought-out for us, we shall source the same from Class-I local supplier only.

##We further confirm that we are presently not debarred / banned by any other procuring entity for violation of 'Public Procurement (Preference to Make in India), Order 2017' (PPP-MII Order) dated 15.06.2017 and its subsequent revisions / amendments issued by Department of Industrial Policy and Promotion (DIPP)."

***Bidder to strike-off whichever is not applicable**

##In case a Bidder has been banned/debarred by any other procuring entity for violation of 'Public Procurement (Preference to Make In India), Order 2017' (PPP-MII Order) dated 15.06.2017 and its subsequent revisions / amendments issued by Department of Industrial Policy and Promotion (DIPP), the same may be declared by Bidder by striking off para above and declaring the details of banning using additional sheets.

Bidder may also enclose additional sheets in similar format (if required), for providing details pertaining to local value addition.

Dated this.....day of. 20.....

Thanking you, we remain,

Yours faithfully,

Business Address:

Country of Incorporation (Province also to be indicated):

Phone No. :

Email:

**ATTACHMENTS FOR
ENVELOPE-1 (TECHNO-COMMERCIAL)**

BID SECURITY

**BIDDER TO FURNISH BID SECURITY IN LINE WITH
ITB CLAUSE 12**

**BIDDER TO FURNISH BID SECURITY IN LINE WITH
ITB CLAUSE 12 AND AS PER FORMAT GIVEN
AT SL. NO. 2 OF SECTION VII PART 2 OF 2. (FORMS & PROCEDURES)**

POWER OF ATTORNEY

BIDDER TO ATTACH THE POWER OF ATTORNEY AND COPY OF BOARD RESOLUTION/ OTHER RELEVANT DOCUMENTS TO DEMONSTRATE THE AUTHORITY OF THE PERSON ISSUING THE POWER OF ATTORNEY IN ACCORDANCE WITH CLAUSE 8.1.1 (b) OF ITB

(NOTE: Bidders may note that no prescribed proforma has been enclosed for Power of Attorney)

Sample Format for Power of Attorney for signing of Bid (Sample Format)

Know all men by these presents, We, ...(name of the firm and address of the registered office) do hereby irrevocably constitute, nominate, appoint and authorize Mr. / Ms(Name), son/daughter/wife of and presently residing at, who is presently employed with us and holding the position of, as our true and lawful attorney (hereinafter referred to as the "Attorney") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our Bid for the (Name of the Project *****) invited by NVVN including but not limited to signing and submission of all applications, Bids and other documents and writings, participate in Bidders' and other conferences and providing information / responses to NVVN, representing us in all matters before NVVN, signing and execution of all contracts including the Contract Agreement and undertakings consequent to acceptance of our Bid, and generally dealing with NVVN in all matters in connection with or relating to or arising out of our Bid for the said Project and/or upon award thereof to us and/or till the entering into of the contract agreement with NVVN.

AND we hereby agree to ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE, ..., THE ABOVE NAMED PRINCIPAL
HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS DAY OF,
20.....

For
(Signature, name, designation and address)
of person authorized by Board Resolution
(in case of Firms/Company)/Partner in case of
Partnership Firms

WITNESS:

- 1.
- 2

(Qualification Data)

Dear Sirs,

We seek qualification under Clause 8.1.2(a) of Section ITB and Item No. 4.0 of Bid Data Sheet and our qualification data in support thereof is enclosed in the following Attachments:

1.	Attachment 3A-1	:	Details Pertaining to Technical Qualification – NOT APPLICABLE. ENLISTED BIDDERS (ALREADY QUALIFIED)
2.	Attachment 3A-2	:	Details Pertaining to Financial Qualification
3.	Attachment 3B	:	Details of Financial Capacity Status
4.	Attachment 3C	:	Details of Design, Engineering, manufacturing, Construction, Quality and testing Capabilities
5.	Attachment 3D	:	Details of manufacturing capacities & Plant Loading
6.	Attachment 3E	:	Present order book position
7.	Attachment 3F	:	Past Performance Data
8.	Attachment 3G	:	Data regarding Key Construction Personnel
9.	Attachment 3H	:	Manpower Loading Data
10.	Attachment 3I	:	Original Deed(s) of Joint Undertaking (if applicable)
11.	Attachment 3J	:	Brief write up regarding Project Management Organisation
12.	Attachment 3K	:	Provenness Criteria (if applicable)
13.	Attachment 3L	:	JV agreement (if applicable)

We further understand and agree that any misleading or false information furnished by us may result in summary rejection of our bid.

Note: The Bidder shall enclose relevant documents like copies of authentic purchase order, completion certificates, agreements etc. supporting the details/data provided in Attachments-3A to 3L.

**(Details pertaining to Technical Qualification
as per Item No. 4.0 of the Bid Data Sheet)**

(NOT APPLICABLE)

**(Details pertaining to Financial Criteria of Qualification Requirement
as per Clause 1.2 of Item No. 4.0 of Bid Data Sheet)**

(NOT APPLICABLE)

(Financial Capacity Status of Bidder and/or wherever applicable, his JV Partner(s))

A) Orders in Hand

i) Total value of Contracts

ii) Value of work completed out of above value upto previous FY

iii) Value of anticipated work to be performed in the following Financial Years (FY):

Current FY

Next FY1

Next FY2

Next FY3

Next FY4

B) Bidder's assessment of maximum negative cash flow (fund requirement) at any point of time between Notification of Award and completion of contract based on specified terms of payment and his expenditure plan for plant & equipment being offered by bidder for this package.

C)	Arrangement to meet the above fund requirement.	Own Funds	Credit	Others	Total

D) Gross Turnover of Company

during last three FY:

Year ending – FY 1

Year ending – FY2

Year ending – FY3

E) Balance Sheet and Profit & Loss Account duly certified by a Chartered Accountant for the last 3 years is to be submitted.

Enclosed at Annexure to this Attachment-3B

F) Declaration by Bankers or the Chartered Accountant regarding:

i) Bank Guarantee Limits

Enclosed at:.....

ii) Over Draft Limits/Cash Credit Limits

Enclosed at:.....

iii) Deferred payment limits

Enclosed at:.....

iv) Fixed Deposits Enclosed at:.....

v) Movable Property
Hypothecation

Enclosed at:

(Please state the present
utilisation status also)

G) Information regarding
any current litigation
in which the Bidder is
involved, the parties
concerned, the
disputes and the
disputed
amount if any.

Enclosed at:.....

- Note :**
1. The above Attachment shall be filled-up by the bidder for **himself** and for each **JV Partner**, as applicable, being proposed by the bidder in his bid.
 2. Continuation sheets of like size and format, may be used and annexed to this Attachment if required.

(Details of Design, Engineering, Manufacturing and Testing Capabilities of Bidder)

- 1.0 We hereby confirm that we do not anticipate any change in ownership during the proposed period of execution of work (if such a change is anticipated, the scope and effect thereof shall be defined). The relevant document for same is enclosed at Annexure ----- to the Attachment-3C.

It is clearly understood that the bid is submitted for consideration of award on the strength of the credential / experience of the Bidder and executants of Deeds of Joint Undertakings (if applicable) as specified in the Qualifying Requirements of the subject Tender.

We confirm that in case of any change in our ownership the new / successor entity shall honour all our obligations under the Contract for the subject Package.

Note :

The above shall be filled up and signed separately by the bidder **itself** and each of the executants of the Deeds of Joint Undertakings / JV Agreement.

- 2.0 Furnish adequate detailed write up on:

(i)	Design and Engineering and Organization facilities/capabilities	:	Enclosed at Annexure to Attachment – 3C
(ii)	Manufacturing & Testing Organization and facilities available	:	Enclosed at Annexure to Attachment – 3C
(iii)	Field Organization and resources for erection, testing & commissioning etc.	:	Enclosed at Annexure to Attachment – 3C
(iv)	Quality Assurance, Organization and Capabilities for Construction, Engg., Manufacturing & Field Installation	:	Enclosed at Annexure to Attachment – 3C
(v)	Established Project Management	:	Enclosed at Annexure to Attachment – 3C
(vi)	Details of Manpower / Division of Company	:	Enclosed at Annexure to Attachment – 3C

Note: 1 The above Attachment shall be filled up by the bidder for **himself** and each **JV Partner**, as applicable, being proposed by the bidder in his bid and relevant details shall be furnished.

2. Continuation sheets of same size and format may be used by the Bidder and annexed to this Attachment, if required.

(Details of Manufacturing Capacities/Plant Loading of the Bidder and/or wherever applicable, his JV Partner(s))

We hereby furnish below the details of our installed capacities and work in hand to establish spare capacity for completion of work under this package.

Item	FY..		FY..		FY....		FY...		FY..		FY	
	Bidder's Shop	Sub-Contractor's Shop	Bidder's Shop	Sub-Contractor's Shop	Bidder's Shop	Sub-Contractor's Shop	Bidder's Shop	Sub-Contractor's Shop	Bidder's Shop	Sub-Contractor's Shop	Bidder's Shop	Sub-Contractor's Shop
A)Production Capacity as installed												
B) Firm orders in hand upto.....												
C)Balance Capacity available												
D) Orders Expected												
E) Work Load Expected for this contract												
F) Short												

tfall, if any												
G) Alter native arrangement s to make up for this short fall												

- Note :** 1. Continuation sheets of like size and format may be used as per Bidder's requirement and shall be annexed to this Attachment.
2. The above Attachment shall be filled up by the bidder for himself and each JV Partner, as applicable, being proposed by the bidder in his bid and relevant details shall be furnished.

(Present Order Book Position)

Sl. No.	Client	Order Value	No. of Units & Unit Size	Date of Order	Present Status		% work completed	Completion of Supply		Completion of Erection, Testing & Commissioning		Reason for delay (if any)
					Schedule	Actual / Expected		Schedule	Actual/ Expected	Schedule	Actual/ Expected	

- Note :**
1. The above attachment shall be filled up by the bidder for himself and for each of the JV Partner, as applicable, being proposed by the bidder in his bid.
 2. Continuation sheets of like size and format may be used as per Bidder's requirement and shall be annexed to this Attachment.

(Past Performance Data)

Details of Similar Equipment Commissioned/Supplied in last ten years:

Sl. No.	Client Name & Address	Date of Order	Unit Size & No. of Units	Date of completion of supplies		Date of Completion of Erection, Testing & Commissioning		Order Value	Reason for delay (If applicable)
				Schedule	Actual	Schedule	Actual		

- Note :**
- The above Attachment shall be filled up by the bidder for **himself** and for each JV Partner ,as applicable, being proposed by the bidder in his bid.
 - Continuation sheets of like size & format may be used if required and annexed to this Attachment.

(Data regarding key construction personnel)

The qualification and experience of key constructional personnel proposed for administration and execution of the contract at site are as follows:

Sl.No.	Name	Qualification	Position/ Designation	Experience

- Note :**
1. This Attachment shall be filled by the bidder for **himself and for each JV Partner , as applicable, being proposed by the bidder** in his bid.
 2. **Continuation sheets of like size and format may be used as per Bidder's requirement and shall be annexed to this Attachment.**

(Manpower loading data)

Bidder's Name and Address:

To

We declare that our manpower loading during execution of the contract will be as follows:

No. of Months from the date of Notification of Award	1	2	3	4	5	6	7	..	..										End month of work Schedule
Labour (Category)																			

- Note:**
1. The above Attachment shall be filled by the bidder for **himself and for each JV Partner, as applicable, being proposed by the bidder** in his bid.
 3. **Continuation sheets of like size and format may be used as per Bidder's requirement and shall be annexed to this Attachment.**
 4. List of category of labour will be given by the Bidder.

DEED OF JOINT UNDERTAKING
(NOT APPLICABLE)

(PROJECT MANAGEMENT ORGANISATION)

Dear Sirs,

1.0 In line with Clause No. 8.1.2 (a) (v) of ITB, we furnish below the brief write-up* in support of our established project management organization.

* Bidder to use their own format for above details.

JV AGREEMENT
(NOT APPLICABLE)

Deleted

(Conformity of Facilities)

BIDDER TO ATTACH DOCUMENTARY EVIDENCE ESTABLISHING THAT THE FACILITIES OFFERED CONFORM TO THE BIDDING DOCUMENTS.

(Note: Bidders may note that no prescribed proforma has been enclosed for documentary evidence establishing that the facilities offered conform to bidding documents.)

(List of Special Maintenance Tools & Tackles)

Dear Sir,

We are furnishing below the list of special maintenance tools & tackles for various equipment under the subject package. The prices for these tools & tackles are already included in the lumpsum bid price. We further confirm that the list of Special Maintenance tools & tackles includes all the items specifically mentioned in scope of supply & services covered in Section-VI, Technical Specification of Bidding Document.

Notwithstanding what is stated above we further confirm that any additional special maintenance tools and tackles required for the equipment supplied under this package shall be furnished by us at no extra cost to the Employer.

Sl. No.	Description of Equipment	Description of Tools & Tackles	Unit	Qty

Note : Continuation sheets of like size and format may be used as per Bidder's requirement and shall be annexed to this Attachment.

(Schedule of Erection Tools & Plant and Safety Equipments & Safety Personal Protective Equipments)

I. ERECTION TOOLS & EQUIPMENTS

We indicate herein below the erection tools & plant we have in our possession and the equipment we propose to bring to the Site, in case the contract is awarded to us.

Sl. No.	Type and Description of the Equipment	Number the Bidder has in Possession	Number the Bidder proposes to bring to the site
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

We hereby confirm that the quantity and type of Certain tools and equipment, we will employ for construction/erection, will not be less than those listed above and agree to bring more equipment, if so warranted, in the opinion of the Project Manager. Our proposed construction/erection equipment utilization plan indicating utilization dates and time duration of all major erection and construction equipment placed on site is enclosed at Annexure..... to this attachment.

Note : Continuation sheets of like size and format may be used as per Bidder's requirement and shall be annexed to this Attachment.

II. Safety Equipments & Safety Personal Protective Equipments

The list of minimum suggestive **Safety Equipments & Safety Personal Protective Equipments** we propose to bring to the Site, in case the contract is awarded to us is indicated below:

Sl. No.	Minimum Suggested List of Safety Equipments and Safety Personal Protective Equipments	Minimum Quantity

We hereby confirm that the quantity and type of equipments, we will employ for construction/erection, will not be less than those listed above and agree to bring more equipment, if so warranted, in the opinion of the Project Manager.

Note: Continuation sheets of like size and format may be used as per Bidder's requirements and shall be annexed to this Attachment.

Date :

Place :

(Signature)

(Printed Name)

(Designation)

(Common Seal)

(List of Commissioning / Start-up Spares)

Dear Sir,

We indicate herein below the list of Commissioning/ Start-up Spares required for the subject package:

Sl. No.	Item Description	Unit	Quantity

We note that the above list is subject to your approval and we shall ensure the availability of the required quantity of Commissioning spares as approved by you without any additional cost to you before start-up/initial operation.

Note : Continuation sheets of like size and format to be furnished and shall be annexed to this Attachment.

(Information regarding Quality Assurance Program)

Dear Sirs,

We hereby provide the necessary information on Quality Assurance Program containing the overall Quality Management and procedures, which we propose to follow during various phases of execution of the Contract.

Note : Continuation sheets of like size and format, may be used as per Bidder's requirement and shall be annexed to this Attachment.

[Additional Information]

Dear Sirs,

We wish to provide the following additional information in our Bid. We confirm that no price component has been included in the additional information.

Sl. No.	Description of Information	Reference to Bidding Documents	Reference to bid Proposal

Note : Continuation sheets of like size and format may be used as per Bidder's requirements and annexed to this Attachment.

[Demonstration Parameter/ Guarantee Declaration]

As per Technical Specification Section VI of Bidding document

[Functional Guarantee]

As per Technical Specification Section VI of Bidding document

Appendix-I

ATTACHMENT -
Page 1 of 5

.....**PACKAGE FOR**
BIDDING DOCUMENT NO.

INTEGRITY PACT

Between

NTPC Vidyut Vyapar Nigam Ltd (NVVN) (hereinafter referred to as "The Employer ")

and

..... (hereinafter referred to
as "The Bidder/Contractor ")

and

.....(hereinafter referred to as "JV Partner/
Consortium Members" (if applicable)

Preamble

The Employer invites the bids from all eligible bidders and intends to enter into Contract for with the successful bidder(s), as per organizational systems and procedures. The Employer values full compliance with all relevant laws and regulations, and the principles of economical use of resources, and of fairness and transparency in its relations with its Bidder(s) and/or Contractor(s).

In order to achieve these goals, the Employer will appoint Independent External Monitor(s) (IEM), who will monitor the bidding process and the execution of the Contract for compliance with the principles mentioned above.

Section 1 Commitments of the Employer

1. The Employer Commits itself to take all measures necessary to prevent corruption and to observe the following principles in this regard:-
 - a) No employee of the Employer, either in person or through family members including relatives, will in connection with the bidding for or the execution of a Contract, demand or accept a promise for or accept for him/herself or for a third person, any material or immaterial benefit to which he/she is not legally entitled to.
 - b) The Employer shall, during the bidding process treat all Bidders with equity and reason. The Employer will, in particular, before and during the bidding process, provide to all Bidders the same information and will not provide to any Bidder confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the bidding process or the Contract execution.
 - c) The Employer will exclude from the process all known prejudiced persons.
2. If the Employer obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act or if there be a substantive suspicion in this regard, the Employer will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

Section 2 Commitments and Undertakings by the Bidder/Contractor

1. The Bidder/Contractor commits and undertakes to take all measures necessary to prevent malpractices & corruption. He commits himself to observe the following principles during his participation in the bidding process and during the execution of the contract:
 - a) The Bidder/ Contractor undertakes not to, directly or through any other person or firm offer, promise or give or influence to any employee of the Employer associated with the bidding process or the execution of the contract or to any third person on their behalf any material or immaterial benefit which he/she is not legally entitled, in order to obtain in exchange any advantage of any kind whatsoever during the bidding process or during the execution of the contract.
 - b) The Bidder/ Contractor undertake not to enter into any undisclosed agreement or understanding, whether formal or informal with other Bidders. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other action to restrict competitiveness or to introduce cartelization in the bidding process.
 - c) The Bidder/Contractor undertakes not to commit any offence under the relevant Anti-corruption Laws of India; further the Bidder/Contractor will not use improperly, any information or document provided by the Employer as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically for purposes of competition or personal gain and will not pass the information so acquired on to others.
 - d) The Bidder/ Contractor, when presenting his bid, undertakes to disclose any and all payments made, or is committed to or intends to make to agents, brokers or any other intermediaries in connection with the bidding process and / or award of the contract.
 - e) The Foreign Bidder/ Contractor, when presenting his bid, undertakes to disclose the name and address of agents and representative in India. Further, Indian Bidder/ Contractor when presenting his bid, undertakes to disclose the name and address of its foreign principals or associates.
2. The Bidder/ Contractor will not instigate and allure third persons/parties to commit offences outlined above or be an accessory to such offences.

Section 3 Disqualification from Bidding Process and Exclusion from Future Contracts

1. If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of any provisions of Section 2 so as to put his reliability or credibility as Bidder into question, the Employer shall be entitled to disqualify the Bidder(s)/ Contractor(s) from the bidding process or to terminate the contract, if signed on that ground.
2. If the Bidder/ Contractor has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Employer shall be entitled to exclude including blacklist and put on holiday the Bidder/ Contractor for any future tenders/contract award process. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the Employer taking into consideration the full facts and circumstances of each case particularly taking into account the number of transgressions, the position of the transgressors within the company hierarchy of the Bidder and the amount of the damage. The exclusion will be imposed for a period not exceeding two (02) years.
3. A transgression is considered to have occurred if the Employer after due consideration of the available evidence concludes that no reasonable doubt is possible.

4. The Bidder with its free consent and without any influence agrees and undertakes to respect and uphold the Employer's absolute rights to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.
5. Subject to full satisfaction of the Employer, the exclusion of Bidder/ Contractor could be revoked by the Employer if the Bidder/ Contractor can prove that he has restored/ recouped the damage caused by him and has installed a suitable corruption prevention system in his organization.

Section 4 Compensation for Damages including Forfeiture of Earnest Money Deposit/ Security Deposit/ Performance & Advance Bank Guarantees

1. If the Employer has disqualified the Bidder/ Contractor from the bidding process or has terminated the contract pursuant to Section 3, the Employer shall forfeit the Earnest Money Deposit/Bid Security, encash Contract Performance Bank Guarantees in addition to excluding the bidder from the future award process and terminating the contract.
2. In addition to 1 above, the Employer shall be entitled to take recourse to the relevant provisions of the contract related to Termination of Contract due to Contractor's Default.

Section 5 Previous Transgressions

1. The Bidder swears on oath that no previous transgression impinging on anti-corruption principles / any malpractice as mentioned in Section-2 has occurred in the last three years immediately before signing of this Integrity Pact, with any other company / any Public Sector Enterprise/ Undertaking in India / any Government Department in India.
2. If the Bidder makes incorrect statement on previous transgression as mentioned above in para 1, Bidder can be disqualified from the bidding process or the contract, if already awarded, can be terminated on this ground

Section 6 Company Code of Conduct

Bidders are also advised to have a company code of conduct (clearly rejecting the use of bribes and other unethical behaviour) and a compliance program for the implementation of the code of conduct throughout the company.

Section 7 Independent External Monitors (IEM)

1. The Employer will appoint competent and credible Independent External Monitor for this Pact. The task of the IEMs is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
2. The IEMs are not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He shall report to CEO of the Employer or a person authorized by him.
3. The Bidder/Contractor accepts that the IEMs have the right to access without restriction to all Project documentations of the Employer including that provided by the Contractor. The Contractor will also grant the IEMs, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his Project Documentations. The same is applicable to Subcontractors. The IEMs are under contractual obligation to treat the information and documents of the Bidder / Contractor / Sub-Contractors/ JV partners/Consortium member with confidentiality.
4. The Employer will provide to the IEMs sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations

between the Employer and the Contractor. The parties offer to the IEMs the option to participate in such meetings.

5. As soon as the IEMs notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Employer (CEO of the Employer or a person authorized by him) and request to discontinue or to take corrective action, or to take other relevant action. The IEMs can in this regard submit non-binding recommendations. Beyond this, the IEMs has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action. However, Independent External Monitor shall give an opportunity to the bidder/contractor to present its case before making its recommendations to the Employer.
6. The IEMs will submit a written report to CEO of the Employer or a person authorized by him within 30 days from the date of reference or intimation to him by the Employer and, should the occasion arise, submit proposals for correcting problematic situations.
7. The Bidder / Contractor accepts that they shall not approach courts while the matter / complaint / dispute has been referred to the IEM in terms of this pact and they shall await IEM's decision before approaching any Court.
8. If the IEMs have reported to CEO of the Employer or a person authorized by him a substantiated suspicion of an offence under relevant IPC/ PC Act, and he has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the IEMs may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
9. The word " IEM" will include Singular or Plural.

Section 8 Pact Duration

This Pact comes into force from the date of signing by all the parties. It shall expire for the Contractor 12 months after the last payment under the respective Contract, and for all other unsuccessful bidders 6 months after the Contract has been awarded.

Section 9 Miscellaneous Provisions

1.0 This Pact is subject to Indian Law. The place of performance and jurisdiction shall be New Delhi.

2. Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
3. The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.
4. If the Contractor is a JV partnership / Consortium, this agreement must be signed by all the partners of JV / Consortium Partners as the case may be.

The Parties hereby sign this Integrity Pact at on this day of.....20

Employer

Bidder/ Contractor

Joint Venture Partner(s)/
Consortium member(s)
(As Applicable)

Witness

Witness

Witness

1. _____

1.

1.

2. _____

2.

2.

INDEPENDENT EXTERNAL MONITORS

Independent External Monitors (IEMs) are appointed in NVVN to oversee the implementation of Integrity Pact. Details of IEM is published in NVVN website and can be accessed through the following link

https://nvvn.co.in/assets/files/INTEGRITY_PACT_AND_INDEPENDENT_EXTERNAL_MONITORS.pdf

S No	Independent External Monitors (IEMs)
1	Shri Sanjeev Sharma, Ex- Director (Fin) Mazagon Dock Shipbuilders Ltd
2	Shri Rakesh Sehgal, IDAS(Retd)

ATTACHMENT-10

(Details of Foreign Principals of Indian Bidders)

Bidder's Name and Address:

To
NTPC Limited, Contract Services
6th Floor, Engg. Office Complex,
Plot A-8A, Sector-24, Noida 201301

Dear Sirs,

We here by declare the details of our foreign principals as below:

<i>Sl. No.</i>	<i>Name</i>	<i>Detailed Address</i>	<i>Relationship with Bidder</i>
<i>1.</i>			
<i>2.</i>			
<i>3.</i>			
<i>4.</i>			
<i>5.</i>			

(Technical Data Sheet)

AS PER TECHNICAL SPECIFICATION

NAME OF CONTRACT: DEVELOPMENT OF 17491 KW GRID CONNECTED ROOFTOP & GROUND MOUNTED SOLAR PROJECTS AT VARIOUS LOCATIONS OF CENTRAL ARMED FORCES AND DEPARTMENTS UNDER MINISTRY OF HOME AFFAIRS AND MINISTRY OF POWER - ZONE 5 (ASSAM, ARUNACHAL PRADESH, TRIPURA, MANIPUR, NAGALAND, MIZORAM, MEGHALAYA)

BID DOCUMENT NO. : NVVN/C&M/RE-314/2022-23

(Declaration on Local Content for granting of purchase preference)

(To be submitted online with Techno-Commercial Bid)

***(i)** *We confirm that we fulfill the requirements of Local content for Class-I local supplier.*

The details of the location(s) at which the local value addition is made are as under

Sl. No.	Description of Goods & Services	Details of the location(s) at which the local value addition is made

OR

***(ii)** *We confirm that we fulfill the requirements of Local content for Class-II local supplier.*

The details of the location(s) at which the local value addition is made are as under:

Sl. No.	Description of Goods & Services	Details of the location(s) at which the local value addition is made

We confirm that we fulfill the requirements of Local content for Class-I local supplier for Item(s) mentioned in Technical Specifications, as applicable. We further confirm that in case such item(s) are bought-out for us, we shall source the same from Class-I local supplier only.

#We undertake that a certificate from the statutory auditor or cost auditor (in the case the bidder is a company) or from a practicing cost accountant or practicing chartered accountant (in respect of bidders other than companies) certifying the percentage of local content shall be submitted by us prior to submission of our last bill for payment.

##We further confirm that we are presently not debarred / banned by any other procuring entity for violation of 'Public Procurement (Preference to Make in India), Order 2017' (PPP-MII Order)

dated 15.06.2017 and its subsequent revisions / amendments issued by Department of Industrial Policy and Promotion (DIPP)."

****Bidder to strike-off whichever is not applicable***

#[Applicable in packages with estimated value (excluding taxes & duties) exceeding INR 10 Crores.]

##In case a Bidder has been banned/debarred by any other procuring entity for violation of 'Public Procurement (Preference to Make In India), Order 2017' (PPP- MII Order) dated 15.06.2017 and its subsequent revisions / amendments issued by Department of Industrial Policy and Promotion (DIPP), the same may be declared by Bidder by striking off para above and declaring the details of banning using additional sheets.

Bidder may also enclose additional sheets in similar format (if required), for providing details pertaining to local value addition.

(CHECKLIST FOR TECHNO-COMMERCIAL BID)

Bidder's Name and Address :

To
Contract Services
NTPC Ltd.,
Noida - 201301

Dear Sirs,

Check List of documents to be submitted for Envelop-I (Techno-Commercial) Bid.

Sl.	Details of Checks	Enclosed : Yes / No
1.	BID FORM (TECHNO-COMMERCIAL BID)	.....
2.	ATTACHMENT-1	
3.	ATTACHMENT-2	
4.	ATTACHMENT-3 (INCLUDING QR DETAILS & DEED OF JOINT UNDERTAKING, IF APPLICABLE)	.....
5.	ATTACHMENT-4 AND ATTACHMENT-4A	.....
6.	ATTACHMENT-5	.....
7.	ATTACHMENT-6	.....
8.	ATTACHMENT-7	.....
9.	ATTACHMENT-8/8A	.....
10.	ATTACHMENT-9	.....
11.	ATTACHMENT-10	.....
12.	ATTACHMENT-11 (NA)	.....
13.	ATTACHMENT-12	.....
14.*	ATTACHMENT-13	.....

Date : (Signature).....

Place : (Printed Name).....

(Designation).....

ATTACHMENTS FOR ENVELOPE-2 (PRICE)

(Declaration regarding Import Content in Ex-works price of Schedule-2)

Dear Sirs,

Declaration regarding Import Content included in Schedule-2 of our bid price

The details of Import Content included in Schedule-2 of our bid price are as follows:

Sl.No.	Description of Items	Quantity	*Value (included in our Bid Price)

These details are furnished for the purpose of issuance of the Required Certificate as per ITB Clause 10.6. We further confirm that we shall be solely responsible for availing benefits (If Available).

*** Please state the currency and fill in the amount in figures and words.**

Date : (Signature).....

Place : (Printed Name).....

(Designation).....

(Common Seal).....

(Declaration regarding Customs Duty Benefits for Import of Construction Equipment)

Dear Sir,

1. We confirm that we are solely responsible for obtaining the Customs Duty Benefits for import of Construction Equipment which we have considered in our bid and in case of failure to receive such benefits, Employer will not compensate us in any manner whatsoever.
2. We further confirm that we will not claim for adjustment in Contract Price on account of variation in or withdrawal of Custom Duty Benefits for Import of Construction Equipment.
3. We are furnishing below the information required by the Employer for issue of relevant Certificates in terms of the Customs Act & Notification of the Govt. of India:

(A) *CIF Value of Construction Equipment to be imported by the Bidder including sub-contractor(s) of the Bidder.

.....
.....
.....

We further confirm that aforesaid CIF value has not been included in Attachment-1P.

*** Please state the currency and fill in the amount in figures and words.**

B. Description and quantities of the Construction Equipment to be imported by the Bidder / sub-contractor(s) for deployment to site under the package .

Sl.	Description of item to be imported	Quantity (No.)

C. We confirm that the Construction Equipment being imported as per 'B' above shall be deployed at the Project Site for the purpose of execution of Package as per bidding document No.

Note : Continuation sheets of like size and format may be used as per Bidders requirements and shall be annexed to this Attachment.

[FUNCTIONAL GUARANTEES]

Dear Sirs

We declare that the ratings, capacities and performance figures of the equipment furnished by us under the package are guaranteed. We further declare that in the event of any deficiencies in meeting the guaranteed figures indicated below as established after conducting the guarantee tests, you may at your discretion accept the equipment/system after assessing the liquidated damages as specified in Section-VI (Technical Specifications) of the Bidding Documents, or reject the equipment/system and recover payments already made.

S.No. Guaranteed Parameters	Guaranteed Figures

(Price Adjustment Data)

(NOT APPLICABLE)

(CHECKLIST FOR PRICE BID)

Bidder's Name and Address :

To
Contract Services
NVVN Ltd.,
Noida - 201301

Dear Sirs,

Check List of documents to be submitted for Envelop-II (Price) Bid.

Sl.	Details of Checks	Enclosed : Yes / No	No.
1.	ATTACHMENT-1P		
3.	ATTACHMENT-2P		
4.	ATTACHMENT-3P		
5.	ATTACHMENT-4P		
6.*	.....		

Date : (Signature).....

Place : (Printed Name).....

(Designation).....

***C&M coordinator to add Other Attachment (s), if any, specified in BDS.**

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



BIDDING DOCUMENTS

FOR

**DEVELOPMENT OF 17491 KW GRID CONNECTED
ROOFTOP & GROUND MOUNTED SOLAR
PROJECTS AT VARIOUS LOCATIONS OF CENTRAL
ARMED FORCES AND DEPARTMENTS UNDER
MINISTRY OF HOME AFFAIRS AND MINISTRY OF
POWER - ZONE 5 (ASSAM, ARUNACHAL PRADESH,
TRIPURA, MANIPUR, NAGALAND, MIZORAM,
MEGHALAYA)**

SECTION – VII
BOOK 2 OF 2

BIDDING DOCUMENT NO.: NVVN/C&M/RE-314/2024-25

(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).

Bidding Document No NVVN/ C&M /RE-310 /2024-25	DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

TABLE OF FORMS AND PROCEDURES

Sl.No.	Description	
Section-VII (Part 1 of 2)		
1a.	Techno-Commercial Bid (Envelope-1) (Bid Form along with Attachments)	
1b.	Price Bid (Envelope-2) (Attachments for Envelope-II and Price Schedules)	
Section-VII (Part 2 of 2)		
2.	Bid Security Form - Bank Guarantee	
2a.	Form of Insurance Surety Bond towards Bid Security	
2b.	Bid Security Form - Bank Guarantee APPLICABLE in case of Bid from Joint Venture	- NOT
2b.	Bid Security Form - Letter of Credit APPLICABLE	- NOT
3	(a) Form of Notification by the Employer to the Bidder APPLICABLE	- NOT
	(b) Form of Sight Draft APPLICABLE	- NOT
4.	Forms of Notification of Award	
5.	Form of Contract Agreement	
6.	Performance Security Form	
6a.	Performance Security Form in case of Contract awarded to Joint Venture	
7(i).	Bank Guarantee Form for Advance Payment (Supply Ex-Works)	
7(ii).	Bank Guarantee Form for Advance Payment (Installation Services)	

Bidding Document No NVVN/ C&M /RE-310 /2024-25	DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

- 7(iii). Bank Guarantee Form for Advance Payment
(in case of Contract awarded to Joint Venture)

Sl. No.	Description
8.	Form of Completion Certificate
9.	Form of Operational Acceptance Certificate
10.	Form of Trust Receipt
11.	Forms of Indemnity-cum-Undertaking Agreements (2 Nos.)
12.	Form of Authorization Letter
13.	Form of Deed of Joint Undertaking
14.	Form of Bank Guarantee/Insurance Surety Bond by Associate/ Collaborator
15.	Form of Joint Venture Agreement
16.	Form of Bank Guarantee/Insurance Surety Bond Verification Check List
17.	Form of Extension of Bank Guarantee/Insurance Surety Bond
18.	Form of Indemnity-cum-Undertaking Agreement (for Removal of Surplus Material and scraps)
19.	Form of Contract Closing Certificates
20.	Declaration of absence of Conflict of Interest with Conciliation Committees of Independent Experts (CCIE)
21.	Declaration of Absence of Conflict of Interest with Independent Engineer (IE)
22.	Electronic Fund Transfer form
23.	BG forwarding letter from Bank to Unified Treasury in Bank's letterhead

2. BID SECURITY FORM

Bank Guarantee

(To be stamped in accordance with Stamp Act,
if any, of the Country/ state of the issuing Bank)

Bank Guarantee No.....

Date.....

To :

NVVN Ltd.

[Employer's Name and Address]

Dear Sirs,

In accordance with Invitation for Bids under your Bid Document No , M/s
.....(***)..... having its Registered/Head Office at
.....hereafter called the 'Bidder') wish to participate in the said bid for [Name
of Package].....

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

We, the[Name & address of
the Bank].....having our Head Office
at.....(#).....guarantee and undertake to
pay immediately on demand by.....[Name of the Employer]
(hereinafter called the 'Employer').....the amount of
.....(*)..... without any reservation, protest, demand and
recourse. Any such demand made by the 'Employer' shall be conclusive and binding on us
irrespective of any dispute or difference raised by the Bidder.

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

In witness whereof the Bank, through its authorised officer, has set its hand and stamp on
this.....day of.....20.....at.....

.....
(Signature)

.....
(Name)

Bidding Document No NVVN/ C&M /RE-310 /2024-25

DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR
PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

(Designation with Bank Stamp)

Authorised Vide

Power of Attorney No.....

Date.....

NOTE : 1. (*) The amount shall be as specified in the bidding documents.

(**) This shall be the date of opening of bids.

(#) Complete mailing address of the Head Office of the Bank to be given.

(@) This date shall be forty five (45) days beyond the validity of bid.

2. The Bank Guarantee (BG) shall be from a Bank as per provisions of the bidding documents.
3. The BG should be on Non-Judicial stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the State(s) where the BG is submitted or is to be acted upon or the rate prevailing in the State where the BG is executed, whichever is higher. The Stamp Paper/e-Stamp paper shall be purchased in the name of Bidder/Bank issuing the guarantee.
4. While getting the Bank Guarantee issued, Bidders are required to ensure compliance to the points mentioned in Bank Guarantee Verification Check List in the bidding documents. Bidders are required to fill up this Check List and enclose the same along with the Bank Guarantee.
5. In case, Bank Guarantee is getting issued from State Bank of India, Bidder to take note of NTPC letter ref. NTPC/FC/CS/BG/01 dated 03.09.2014 and SBI letter ref. CAG-I/AMT-1/2014-15/370 dated 04.09.2014 (attached with Section-III of Bidding Documents).

2a. Form of Insurance Surety Bond towards Bid Security
(To be stamped in accordance with Stamp Act of India)

Insurance Surety Bond No.

Date.....

To
[Employer's Name and Address]

Dear Sirs,

In accordance with Invitation for Bids under your Bid Document No., M/s.....[Bidder's Name]..... having its Registered/Head Office at (hereinafter called the 'Bidder') wish to participate in the said bid for [Name of Package] As an irrevocable Insurance Surety Bond against Bid Security for an amount of(*) valid for..... days from(**)..... required to be submitted by the Bidder as a condition precedent for participation in the said bid which amount is liable to be forfeited on the happening of any contingencies as mentioned under the Bidding Documents.

We, the [Name & address of the Insurer] having our Head Office at (#) guarantee and undertake to pay immediately on demand by NTPC Vidyut Vyapar Nigam Limited (hereinafter called the 'Employer') the amount of(*)..... without any reservation, protest, demand and recourse. Any such demand made by the 'Employer' shall be conclusive and binding on us irrespective of any dispute or difference raised by the Bidder and/or any right/remedy available to the bidder in terms thereof.

This Insurance Surety Bond shall be unconditional as well as irrevocable and shall remain valid upto(@)..... If any further extension of this Insurance Surety Bond is required, the same shall be extended to such required period (not exceeding one year) on receiving instructions from M/s [Bidder's Name]..... on whose behalf this Insurance Surety Bond is issued.

In witness where of the Insurer, through its authorised officer, has set its hand and stamp on this.....day of.....20.....at.....

(Signature)

(Name)

(Designation with Insurer Stamp)

Authorised Vide

Power of Attorney No.....

Date.....

NOTE : 1. (*) The amount shall be as specified in the Bid Data Sheets.

(**) This shall be the date of opening of Techno-Commercial bids.

(#) Complete mailing address of the Head Office of the Insurer to be given.

Bidding Document No NVVN/ C&M /RE-310 /2024-25	DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

(@) This date shall be forty five (45) days after the last date for which the bid is valid.

2. The Insurance Surety Bond shall be from an Insurer as per guidelines issued by Insurance Regulatory and Development Authority of India (IRDAI) as amended from time to time.
3. The Employer shall be the Creditor, the Bidder shall be the Principal debtor and the Insurance company/Insurer shall be the Surety in respect of the Insurance Surety Bond to be issued by the Insurer.
4. The Insurance Surety Bond should be on Non-Judicial stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the state(s) where the Insurance Surety Bond is submitted or is to be acted upon or the rate prevailing in State where the Insurance Surety Bond is executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Bidder/Insurer issuing the Insurance Surety Bond.
5. While getting the Insurance Surety Bond issued, Bidders are required to ensure compliance to the points mentioned in Form of Bank Guarantee/Insurance Surety Bond Verification Check List enclosed in this Section of Bidding Documents. Further, Bidders are required to fill up this Form and enclose the same with the Insurance Surety Bond.

2b. Bid Security Form

(IN CASE OF BID FROM JOINT VENTURE) – NOT APPLICABLE

Bidding Document No NVVN/ C&M /RE-310 /2024-25	DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

FORM No. 2 (b)
BID SECURITY - LETTER OF CREDIT

- NOT APPLICABLE -

**3. (a) FORM OF NOTIFICATION BY THE
EMPLOYER TO BIDDER**

(b) FORM OF SIGHT DRAFT

Bidding Document No NVVN/ C&M /RE-310 /2024-25	DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

3a. FORM OF NOTIFICATION BY THE EMPLOYER TO THE BIDDER

- NOT APPLICABLE -

Bidding Document No NVVN/ C&M /RE-310 /2024-25	DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

3b. FORM OF SIGHT DRAFT

- NOT APPLICABLE -

Bidding Document No NVVN/ C&M /RE-310 /2024-25	DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

4. FORM OF NOTIFICATION OF AWARD

Bidding Document No NVVN/ C&M /RE-310 /2024-25	DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

**4a. FORM OF 'NOTIFICATION OF AWARD OF CONTRACT' FOR
SUPPLY OF PLANT AND EQUIPMENT**

NOTE: *INSTRUCTIONS INDICATED IN ITALICS IN THIS NOTIFICATION OF
AWARD ARE TO BE TAKEN CARE OF BY THE ISSUING AUTHORITY.*

Ref. No. : Date:

..... (Contractor's Name & Address)

.....

.....

..... Attn: Mr.

Sub: Notification of Award of Contract for Supply of.....
(Package Name) as per Bidding Document
No.....

Dear Sir,

1.0 This has reference to the following:

(i) Our Invitation for Bids (IFB) No. dated.....

(ii) Bidding Documents for the subject package issued to you vide our letter
no. dated..... comprising the following :

*.....(List out all the Sections/Volumes of the Bidding
Documents along with Tender Drawings etc. as issued to the
bidder).....*

Errata/Amendment No..... to..... *(Name of Section/Volume
of the Bidding Documents to which Errata/Amendment
pertains)*..... issued to you vide our letter no. dated
.....

*(Applicable only if any Errata/Amendment to the Bidding Documents
has been issued subsequently)*

(iii) Clarifications furnished to you on the Bidding Documents vide our
letter no..... dated based on the query raised by
you/one of the prospective bidders. *(Use as applicable)*

(Applicable only if any clarification to the Bidding Documents has

Bidding Document No NVVN/ C&M /RE-310 /2024-25

DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR
PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

been issued subsequently)

(INCLUDE AS FURTHER SUB-PARAGRAPHS ANY OTHER CORRESPONDENCE MADE TO THE BIDDER AFTER ISSUANCE OF BIDDING DOCUMENTS UP TO THE DATE OF BID OPENING)

- (iv) Your Proposal for the subject package submitted vide your letter No. dated..... and its modification vide letter no. dated..... **(Delete if not applicable).**
- (v) Our Fax message/letter No. dated..... regarding extension of validity of bid and that of the Bank Guarantee towards Bid Security (If Applicable)
- (vi) Our Fax message/letter No. dated..... inviting you for post bid discussions.
- (vii) Post bid discussions and meetings we had with you from to resulting into the following Minutes of Meeting enclosed herein with this Notification of Award :
- (a) Minutes of Meeting regarding Commercial issues (APPENDIX -)
 - (b) Minutes of Meeting on Technical issues (APPENDIX -)
 - (c) Minutes of Meeting regarding Work Schedule (APPENDIX -)
 - (d) Minutes of Meeting regarding Quality Assurance Aspects (APPENDIX-)
- 2.0 We confirm having accepted your proposal submitted vide letter no. dated and its modification vide letter no. dated **(Delete if not applicable)** read in conjunction with all the specifications, terms & conditions of the Bidding Documents, **Your subsequent letters (Use if relevant)** and agreed Minutes of Meeting referred to in para 1.0 above and award on you the Contract for the work of**(Indicate brief Scope of Work)** of..... **(Name of Package)** for **(Name of project)**..... as per Specification No. :..... (hereinafter referred to as the 'First Contract').
- 3.0 We have also notified you vide our Notification of Award No. dated for award of Second Contract on you for the work of **(Indicate brief scope of work of the Second Contract)** complete **(Name of Package)** for **(Name of Project)** as per Bidding Document No..... (hereinafter referred to as the 'Second Contract').
- 3.1 We have also notified you vide our Notification of Award No. dated for award of Third Contract on

you for the work of **(Indicate brief scope of work of the Third Contract)** complete
(Name of Package) for **(Name of Project)** as per Bidding Document No..... (hereinafter referred to as the 'Third Contract').

3.2 You shall also be fully responsible for the works to be executed under the 'Second Contract' and/or "Third Contract" and it is expressly understood and agreed by you that any breach under the 'Second Contract'" shall automatically be deemed as a breach of this 'First Contract' and vice- versa and any such breach or occurrence or default giving us a right to terminate the 'Second Contract' and/or 'Third Contract' recover damages thereunder, shall give us an absolute right to terminate this Contract and/or recover damages under this 'First Contract' as well and vice-versa. However, such breach or default or occurrence in the 'Second Contract' shall not automatically relieve you of any of your responsibilities/obligations under this 'First Contract'. It is also expressly understood and agreed by you that the equipment/materials to be supplied by you under this Contract when installed and commissioned under the 'Second Contract' and operated and maintained by you under 'Third Contract' shall give satisfactory performance in accordance with the provisions of the Contract

4.0 The total Contract Price for the entire scope of work under the Contract shall be**(Specify the amount and currency)**..... as per the following break up :

(i) **Ex-manufacturing works/place of despatch price (both in India)** for Main Equipment

(ii) **Ex-manufacturing works/place of despatch price (both in India)** for Mandatory spares

(iii) Type test charges
(Delete if not applicable)

TOTAL (i + ii + iii)

(..... **(Specify the total amount in words)**.....)

5.0 You shall prepare and finalize the Contract Documents for signing of the formal Contract Agreement and shall enter into the Contract Agreement with us, as per the proforma enclosed with the Bidding Documents, on non-judicial stamp paper of appropriate value within..... **(Specify)**.....days from the date of this Notification of Award.

Bidding Document No NVVN/ C&M /RE-310 /2024-25	DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

6.0 This Notification of Award is being issued to you in duplicate. We request you to return its duplicate copy duly signed and stamped on each page including all the enclosed Appendices, by the authorised signatory of your company as a proof of your acknowledgement and confirmation.

Please take the necessary action to commence the work and confirm action.

Yours faithfully,

for and on behalf of
.....(***Name of the Employer***).....

(Authorised Signatory)

Encl.: As
above.

**3b. FORM OF 'NOTIFICATION OF AWARD OF CONTRACT' FOR
INSTALLATION OF PLANT AND EQUIPMENT, CIVIL AND ALLIED WORKS
ETC.**

NOTE : ***INSTRUCTIONS INDICATED IN ITALICS IN THIS NOTIFICATION OF
AWARD ARE TO BE TAKEN CARE OF BY THE ISSUING AUTHORITY.***

Ref. No. :

Date:

..... ***(Contractor's Name & Address)***.....
.....
.....
..... Attn: Mr.....

**Sub: Notification of Award of Contract for Inland Transportation, Insurance,
Installation, Civil and Allied Works etc., Testing & Commissioning and
Guarantee Tests of ***(Package Name)***
..... as per Bidding Document No.....**

Dear Sir,

1.0 This has reference to the following:

(i) Our Invitation for Bids (IFB) dated.....

(ii) Bidding Documents for the subject package issued to you vide our letter
no. dated..... comprising the following :

***.....(List out all the Sections/Volumes of the Bidding
Documents along with Tender Drawings etc. as issued to the
bidder).....***

Errata/Amendment No..... to..... ***(Name of
Section/Volume of the Bidding Documents to which Errata/Amendment
pertains)***..... issued to you vide our letter no.
.....dated.....

***(Applicable only if any Errata/Amendment to the Bidding Documents
has been issued subsequently)***

(iii) Clarifications furnished to you on the Bidding Documents vide our
letter no..... dated based on the query raised by
you/one of the prospective bidders. (Use as applicable)

Bidding Document No NVVN/ C&M /RE-310 /2024-25

DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR
PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

(Applicable only if any clarification to the Bidding Documents has been issued subsequently)

(INCLUDE AS FURTHER SUB-PARAGRAPHS ANY OTHER CORRESPONDENCE MADE TO THE BIDDER AFTER ISSUANCE OF BIDDING DOCUMENTS UP TO THE DATE OF BID OPENING)

- (iv) Your Proposal for the subject package submitted vide your letter No. dated and its modification vide letter no. dated **(Delete if not applicable).**
- (v) Our Fax message/letter No. dated..... regarding extension of validity of bid and that of the Bank Guarantee towards Bid Security (If Applicable).
- (vi) Our Fax message/letter No. dated..... inviting you for post bid discussions.
- (vii) Post bid discussions and meetings we had with you from to resulting into the following Minutes of Meeting enclosed herein with this Notification of Award :
- (a) Minutes of Meeting regarding Commercial issues (APPENDIX -)
 - (b) Minutes of Meeting on Technical issues (APPENDIX -)
 - (b) Minutes of Meeting regarding Work Schedule (APPENDIX -)
 - (d) Minutes of Meeting regarding Quality Assurance Aspects (APPENDIX-.)

2.0 We confirm having accepted your proposal submitted vide letter no. dated and its modification vide letter no..... dated **(Delete if not applicable)** read in conjunction with all the specifications, terms & conditions of the Bidding Documents, **Your subsequent letters (Use if relevant)** and agreed Minutes of Meeting referred to in para 1.0 above and award on you the Contract for the work of**(Indicate brief Scope of Work)** of **(Name of Package)** for **(Name of project)**..... as per Bid Document No. : (hereinafter referred to as the 'Second Contract').

3.0 We have also notified you vide our Notification of Award No. dated for award of 'First Contract' on you for the work of **(Indicate brief scope of work of the First Contract)**

Bidding Document No NVVN/ C&M /RE-310 /2024-25	DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

..... complete **(Name of Package)** for
 **(Name of Project)** as per Bidding Document
 No..... (hereinafter referred to as the 'First Contract').

3.1 We have also notified you vide our Notification of Award No.
 dated for award of 'Third Contract' on you for the work of
 (Indicate brief scope of work of the Third Contract)
 complete (Name of Package)
 for (Name of Project) as per Bidding
 Document No..... (hereinafter referred to as the 'Third Contract').

3.2 You shall also be fully responsible for the works to be executed under the 'First
 Contract' and it is expressly understood and agreed by you that any breach under the
 'First Contract' shall automatically be deemed as a breach of this 'Second Contract'
 and vice-versa and any such breach or occurrence or default giving us a right to
 terminate the 'First Contract' and/or recover damages thereunder, shall give us an
 absolute right to terminate this Contract and/or recover damages under this 'Second
 Contract' as well and vice-versa. However, such breach or default or occurrence
 in the 'First Contract' shall not automatically relieve you of any of your
 responsibilities/obligations under this 'Second Contract'. It is also expressly
 understood and agreed by you that the equipment / materials to be supplied by you
 under the 'First Contract' when installed and commissioned under this 'Second
 Contract' shall give satisfactory performance in accordance with the provisions of
 the Contract.

4.0 The total Contract Price for the entire scope of work under the Contract shall be
 **(Specify the amount and currency)** as per the
 following break up :

- (i) Inland transportation and inland
 transit insurance charges
 for Main Equipment
- (ii) ~~Inland transportation and inland~~
~~transit insurance charges~~
 for Mandatory spares
- (iii) Unloading and handling at site, ...
 storage, erection, insurance
 covers other than inland transit
 insurance, testing, commissioning
 and conducting Guarantee Tests
 Charges
- (iv) Civil and Allied Works etc.

(v) Payment related to safety aspect

TOTAL (i + ii + iii + iv+ v)

(.....(**Specify the total amount in words**).....)

5.0 You shall prepare and finalise the Contract Documents for signing of the formal Contract Agreement and shall enter into the Contract Agreement with us, as per the proforma enclosed with the Bidding Documents, on non-judicial stamp paper of appropriate value within.....(**Specify**).....days from the date of this Notification of Award.

6.0 This Notification of Award is being issued to you in duplicate. We request you to return its duplicate copy duly signed and stamped on each page including all the enclosed Appendices, by the authorised signatory of your company as a proof of your acknowledgement and confirmation.

Please take the necessary action to commence the work and confirm action.

Yours faithfully,
for and on behalf of
.....(**Name of the Employer**).....

(Authorised Signatory)

Encl.: As above.

**3c. FORM OF 'NOTIFICATION OF AWARD OF CONTRACT
FOR OPERATION & MAINTENANCE OF COMPLETE SOLAR PV PLANT**

NOTE: INSTRUCTIONS INDICATED IN ITALICS IN THIS NOTIFICATION OF AWARD ARE TO BE TAKEN CARE OF BY THE ISSUING AUTHORITY.

Ref. No. : Date:

..... (Contractor's Name & Address).....

.....

.....

..... Attn: Mr.

Sub: Notification of Award of Contract for Operation & Maintenance of complete Solar PV plant for a period of Ten years from the date of successful completion of commissioning of..... (Package Name) as per Bidding Document No.....

Dear Sir,

1.0 This has reference to the following:

(i) Our Invitation for Bids (IFB) No. dated.....

(ii) Bidding Documents for the subject package issued to you vide our letter no. dated..... comprising the following :

.....(List out all the Sections/Volumes of the Bidding Documents along with Tender Drawings etc. as issued to the bidder).....

Errata/Amendment No..... to..... (Name of Section/Volume of the Bidding Documents to which Errata/Amendment pertains)..... issued to you vide our letter no. dated

(Applicable only if any Errata/Amendment to the Bidding Documents has been issued subsequently)

(iii) Clarifications furnished to you on the Bidding Documents vide our letter no..... dated based on the query raised by **you/one of the prospective bidders. (Use as applicable)**

(Applicable only if any clarification to the Bidding Documents has been issued subsequently)

(INCLUDE AS FURTHER SUB-PARAGRAPHS ANY OTHER

Bidding Document No NVVN/ C&M /RE-310 /2024-25

DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR
PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

CORRESPONDENCE MADE TO THE BIDDER AFTER ISSUANCE OF BIDDING DOCUMENTS UP TO THE DATE OF BID OPENING)

(iv) Your Proposal for the subject package submitted vide your letter No. dated..... and its modification vide letter no. dated..... (Delete if not applicable).

(v) Our Fax message/letter No. dated..... regarding extension of validity of bid and that of the Bank Guarantee towards Bid Security.

(Applicable only if any extension has been sought subsequently)

(INCLUDE AS FURTHER SUB-PARAGRAPHS ANY THER CORRESPONDENCE MADE TO OR BY THE BIDDER AFTER BID OPENING)

(vi) Our Fax message/letter No..... dated..... inviting you for post bid discussions.

(vii) Post bid discussions and meetings we had with you from to resulting into the following Minutes of Meeting enclosed herein with this Notification of Award :

- (a) Minutes of Meeting regarding Commercial issues (APPENDIX -)
- (b) Minutes of Meeting on Technical issues (APPENDIX -)
- (c) Minutes of Meeting regarding Work Schedule (APPENDIX -)
- (d) Minutes of Meeting regarding Quality Assurance Aspects (APPENDIX-.....)

2.0 We confirm having accepted your proposal submitted vide letter no. dated **and its modification vide letter no. dated (Delete if not applicable)** read in conjunction with all the specifications, terms & conditions of the Bidding Documents, **Your subsequent letters (Use if relevant)** and agreed Minutes of Meeting referred to in para 1.0 above and award on you the Contract for the work of**(Indicate brief Scope of Work)** **of..... (Name of Package) for (Name of project).....** as per Specification No. :..... **(hereinafter referred to as the 'Third Contract').**

3.0 We have also notified you vide our Notification of Award No. dated for award of First Contract on you for the work of **(Indicate brief scope of work of the First Contract)** complete **(Name of Package)** for **(Name of Project)** as per Bidding Document No..... (hereinafter referred to as the '**First Contract**').

3.1 We have also notified you vide our Notification of Award No. dated for award of 'Second Contract' on you for the work of **(Indicate brief scope of work of the Second Contract)** complete **(Name of Package)** for **(Name of Project)** as per Bidding Document No..... **(hereinafter referred to as the 'Second Contract').**

4.0 The total Contract Price for the entire scope of work under the Contract shall be **(Specify the amount and currency)**..... as per the following break up :

(i) Operation & maintenance of complete Solar PV plant for a period of Ten (10) years from the date of successful completion of commissioning.....

TOTAL (i)
(..... **(Specify the total amount in words)**.....)

5.0 You shall prepare and finalize the Contract Documents for signing of the formal Contract Agreement and shall enter into the Contract Agreement with us, as per the proforma enclosed with the Bidding Documents, on non-judicial stamp paper of appropriate value within..... **(Specify)**.....days from the date of this Notification of Award.

6.0 This Notification of Award is being issued to you in duplicate. We request you to return its duplicate copy duly signed and stamped on each page including all the enclosed Appendices, by the authorised signatory of your company as a proof of your acknowledgement and confirmation.

Please take the necessary action to commence the work and confirm action.

Yours faithfully,

for and on behalf of
.....**(Name of the Employer)**.....

Encl.: As above.
(Authorized Signatory)

5. FORM OF CONTRACT AGREEMENT

5. Form of Contract Agreement

THIS CONTRACT AGREEMENT is made the _____ day of _____, 20____.

BETWEEN

(1) *[Name of Employer]*, a corporation incorporated under the laws of *[country of Employer]* and having its principal place of business at *[address of Employer]* (hereinafter called “the Employer”), and (2) *[name of Contractor]*, a corporation incorporated under the laws of *[country of Contractor]* and having its principal place of business at *[address of Contractor]* (hereinafter called “the Contractor”)

WHEREAS the Employer desires to engage the Contractor to design, manufacture, test, deliver, install, complete and commission certain Facilities, viz. *[list of facilities]* (“the Facilities”) and the Contractor have agreed to such engagement upon and subject to the terms and conditions hereinafter appearing.

NOW IT IS HEREBY AGREED as follows:

- Article 1. Contract Documents**
- 1.1 **Contract Documents** (Reference GCC Clause 2)
The following documents shall constitute the Contract between the Employer and the Contractor, and each shall be read and construed as an integral part of the Contract:
- (a) This Contract Agreement and the Appendices hereto
 - (b) Notification of Award read in conjunction with Amendments/ Erratas, if any
 - (c) Special Conditions of Contract read in conjunction with Amendments/ Erratas, if any
 - (d) General Conditions of Contract read in conjunction with Amendments/ Erratas, if any
 - (e) Technical Specifications and Drawings read in conjunction with Amendments/ Erratas, if any
 - (f) The Bid and Price Schedules submitted by the Contractor
 - (g) Form and Procedures (as listed) read in conjunction with Amendments/ Erratas, if any
 - (h) Integrity Pact
- 1.2 **Order of Precedence** (Reference GCC Clause 2)
In the event of any ambiguity or conflict between the Contract Documents listed above, the order of precedence shall be the order in which the Contract Documents are listed in Article 1.1 (Contract Documents) above.
- 1.3 **Definitions** (Reference GCC Clause 1)
Capitalized words and phrases used herein shall have the same meanings as are ascribed to them in the General Conditions of Contract.

Article 2. Contract Price and Terms of Payment	2.1	Contract Price (Reference GCC Clause 11) The Employer hereby agrees to pay to the Contractor the Contract Price in consideration of the performance by the Contractor of its obligations hereunder. The Contract Price shall be the aggregate of: <i>[amount of local currency in words]</i>, <i>[amount in figures]</i>, or such other sums as may be determined in accordance with the terms and conditions of the Contract.
	2.2	Terms of Payment (Reference GCC Clause 12) The terms and procedures of payment according to which the Employer will reimburse the Contractor are given in Appendix 1 (Terms and Procedures of Payment) hereto.
Article 3. Effective Date for Determining Time for Completion	3.1	Effective Date (Reference GCC Clause 1) The Time of Completion of the Facilities shall be determined from the date of Notification of Award provided all of the following conditions have been fulfilled within a period of two (2) months from the date of said Notification of Award: (a) This Contract Agreement has been duly executed for and on behalf of the Employer and the Contractor; (b) The Contractor has submitted to the Employer the performance security, security towards faithful performance of the Deed(s) of Joint Undertaking (if applicable) and the advance payment security; (c) The Employer has paid the Contractor the Advance Payment. Each party shall use its best efforts to fulfill the above conditions for which it is responsible as soon as practicable.
	3.2	If the conditions listed under 3.1 are not fulfilled within two (2) months from the date of Notification of Award because of reasons attributable to the Employer, the Contract would become effective only from the date of fulfillment of all the above mentioned conditions and, the parties shall discuss and agree on an equitable adjustment to the Contract Price and the Time for Completion and/or other relevant conditions of the Contract.
	3.3	However, if any of the conditions listed under 3.1 above are not fulfilled within two (2) months from the date of Notification of Award because of reasons attributable to the Contractor, the Contract will be effective from the date of Notification of Award. In this case, Contract price and/or time for completion shall not be adjusted.

Article 4.

It is expressly understood and agreed by and between the Contractor and the Employer that the Employer is entering into this Agreement solely on its own behalf and not on behalf of any other person or entity. In particular it is expressly understood and agreed that the Government of India is not a party to this Agreement and has no liabilities, obligations or rights hereunder. It is expressly understood and agreed that the Employer is an Independent legal entity with power and authority to enter into contracts solely on its own behalf under the applicable laws of India and the general principles of Contract Law. The Contractor expressly agrees, acknowledges and understands that the Employer is not an Agent, Representative or Delegate of the Govt. of India. It is Further understood and agreed that the Government of India is not and shall not be liable for any acts, omissions, commissions, breaches or other wrongs arising out of the Contract. Accordingly, the Contractor expressly waives, releases and foregoes any and all actions or claims, including cross claims, impleader claims or counter claims against the Government of India arising out of this Contract and covenants not to sue the Government of India as to any manner, claim, cause of action or thing whatsoever arising of or under this Agreement.

Article 5. Appendices The Appendices listed in the attached list of Appendices shall be deemed to form an integral part of this Contract Agreement.

Reference in the Contract to any Appendix shall mean the Appendices attached hereto, and the Contract shall be read and construed accordingly.

IN WITNESS WHEREOF the Employer and the Contractor have caused this Agreement to be duly executed by their duly authorized representatives the day and year first above written.

Signed by for and on behalf of the Employer

[Signature]

[Title]

in the presence of _____

Signed by for and on behalf of the Contractor

[Signature]

[Title]

in the presence of _____

CONTRACT AGREEMENT

dated the _____ day of _____, 20_____

BETWEEN

[“the Employer”]

and

[“the Contractor”]

APPENDICES

Appendix 1	Terms and Procedures of Payment
Appendix 2	Price Adjustment
Appendix 3	Insurance Requirements
Appendix 4	Time Schedule
Appendix 5	List of Approved Subcontractors
Appendix 6	Scope of Works and Supply by the Employer
Appendix 7	List of Documents for Approval or Review
Appendix 8	Functional Guarantees

TERMS AND PROCEDURES OF PAYMENT

In accordance with the provisions of GCC Clause 12 (Terms of Payment), the Employer shall pay the Contractor in the following manner and at the following times, based on the Price Break down given in the Section on Price Schedules. Application for payment in respect of part deliveries may be made by the Contractor as work proceeds.

TERMS OF PAYMENT

A. Schedule No.1: Plant and Equipment (excluding ~~Mandatory spares and Type tests~~)

In respect of plant and equipment supplied the following payments shall be made:

For Ex-works Price component of plant and Equipment (excluding ~~Mandatory spares and Type tests~~)

- (I) **Five Percent (5 %)** of the total Ex-Works price component as Initial Advance Payment on:
 - (a) Acceptance of Notification of Award and Signing of the Contract Agreement.
 - (b) Submission of an unconditional Bank Guarantee covering the advance amount plus GST as applicable on the advance payment to be paid to the contractor, which shall be initially kept valid upto (ninety) 90 days beyond the schedule date for Completion of the last facility covered under the Package. However, in case of delay in completion of the facilities covered under the package, the validity of this Bank Guarantee shall be extended by the period of such delay. Proforma of Bank Guarantee is enclosed in Section-VII - Bank Guarantee Form for Advance Payment.
 - (c) Submission of unconditional Bank Guarantees towards Contract Performance Securities in respect of all Contracts, initially valid upto ninety (90) days after the end of scheduled Defect Liability Period of the last equipment covered under the package. The proforma of Bank Guarantee is enclosed in Section-VII - Form of Performance Security.
 - (d) Submission of a detailed PERT Network based on the work schedule stipulated in Appendix-4 to the Form of Contract Agreement and its approval by the Employer.
- (II) **Seventy Five Percent (75%)** of Ex-works price component of the Contract price for each identified equipment on receipt of equipment at site on prorate basis and physical verification and certification by the Project Manager for the equipment received and stored at site.
- (III) **Ten Percent (10%)** of Ex-works price Component of the contract price on successful Commissioning of the premise (i.e Net metering/Net billing) on certification by the Project Manager.

- (iv) **Ten Percent (10%)** of Ex-works price component of the Contract price on Completion of Facilities of Entire Project and issuance of Completion Certificate by the project manager.

Note:

- (i) The prorata payment will be based on the detailed price break-up furnished by the Contractor and approved by the Employer. The Billing Break Up shall be generally on item rate basis. However, for the items which are generally supplied and billed on weight (tonnage) basis, the Billing Break-Up may be considered on weight (tonnage) basis.
- (ii) In case Installation Price including Civil/Structural works price is less than **10%** of the Ex-works Price of Main Equipment (for Rooftop Projects) and less than **20%** of the Ex-works Price of Main Equipment (for Ground mounted Projects), the amount by which it is lower shall be retained proportionately from the Ex-works component of Contract price while releasing payments due on receipt of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid on pro-rata basis upon completion of installation of the respective equipment and its certification by the Project Manager.
- (iii) In case the Contractor decides not to take advance payment mentioned at (I) above, advance amount shall be paid progressively on pro- rata basis along with the receipt payment, as specified in para (II) above.
- (iv) The release of pro-rata payment at (III) above shall also be subject to submission of documentary evidence by the Contractor towards having taken the insurance policy(ies) in terms of relevant provisions of GCC Clause 34 (Insurance) and acceptance of same by the Project Manager.
- (V) In case the Transportation (including Inland Transit Insurance) is more than 4% of Schedule 1, the amount by which it is higher shall be retained while releasing progressive payments due on transportation, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid along with payment due on Commissioning of the Premise.

~~B. Schedule 1 and 5: Mandatory spares and Recommended Spares (When ordered) quoted on Ex-works (India) basis~~

C. Schedule No. 2: Local Transportation

a) All Plant and Equipment

Hundred Percent (100%) of Local Transportation charges (including inland transit insurance charges) for the plant and equipment covered in Schedule-1 shall be paid to the Contractor pro-rata to the value of the equipment received at site and on production of invoices by the Contractor. The aggregate of all such pro-rata payments shall, however, not exceed the total amount identified in the Contract for Local Transportation. However, where equipment wise local transportation charges (including inland transit insurance charges) have been identified in the Contract, the payment for the same shall be made after receipt of the equipment at site, based on the charges so identified in the Contract.

~~b) —Mandatory spares(if applicable) and Recommended Spares (if ordered)~~

D. Schedule No. 3: Installation Services excluding operation and maintenance.

The Installation Services component of the Equipment Price shall be paid as under:

- (I) **Ten Percent (10%)** of the Installation Services Component of the Contract Price will be paid to the Contractor, bearing interest at the rate of “[SBI 1-year MCLR as on 01st April of applicable year + 150 bps] per annum as advance payment on:
- (i) Acceptance of Notification of Award and Signing of Contract Agreement.
 - (ii) Establishing their office at site or resources at site in preparatory to commencement of installation.
 - (iii) Submission of an unconditional Bank Guarantee **for an amount equivalent to one hundred ten percent (110%) of the advance amount** plus GST as applicable on the advance payment to be paid to the contractor, which shall be initially kept valid upto ninety (90) days beyond the schedule date for successful 'Completion of the Facilities' under the Package. However, in case of delay in completion of the facilities covered under the package, the validity of this advance Bank Guarantee shall be extended by the period of such delay. The proforma of the Bank Guarantee is enclosed in Section-VII - Bank Guarantee Form for Advance Payment.
 - (iv) Submission of unconditional Bank Guarantees towards Contract Performance Securities in respect of Contracts, initially valid upto ninety (90) days after the end of scheduled Defect Liability Period of the last equipment covered under the package. The proforma of Bank Guarantee is enclosed in Section-VII - Form of Performance Security.
 - (v) In case of Joint Deed of Undertaking (if applicable) by the contractor along with his Collaborator/ Associate forms part of the contract then submission of an unconditional Bank Guarantee from such Collaborator(s)/Associate(s) towards faithful performance of the Joint Deed of Undertaking for an amount specified in the deed and valid upto ninety (90) days after the end of defect liability period of all equipment covered under the contract. The proforma of Bank Guarantee is enclosed in Section-VII- Form of Performance Security. -- If Applicable –
 - (vi) Submission of a detailed PERT Network based on the work schedule stipulated

in Appendix - 4 to the Form of Contract Agreement and its approval by the Employer. T&P mobilization as identified along with PERT network for start of Erection and Certification thereof by the Engineer-in-Charge.

(vii) Advance Payment for Installation services/ works price components shall be released after certification of Engineer-in-Charge that the Contractor has brought to site the Safety equipments & Safety Personal Protective Equipments as per minimum quantity specified in the Bidding Documents.

- II. **Eighty Percent (80%)** of the installation Services component of contract price shall be paid on pro-rata basis on completion of installation of equipments on certification by the Project Manager for the quantum of work completed and by the certification of Project Manager field quality assurance & surveillance representative for the successful completion of quality check points involved in the quantum of work billed.
- III. **Ten Percent (10%)** of Ex-works price component of the Contract price on Completion of Facilities of Entire Project and issuance of Completion Certificate by the project manager.
- IV. Recovery of the interest component on the advance amount shall be made from the progressive payments released to the Contractor as per D(II) above. The amount of interest to be recovered from a particular bill shall be calculated @ “[**SBI 1-year MCLR as on 01st April of applicable year + 150 bps**] per annum” on the value of advance corresponding to the %age of total progressive payment being released. The period for which the interest is to be calculated shall be reckoned from the date of release of the advance payment to the actual date of release of the said progressive payment or the expiry of the stipulated time frame for release of such progressive payment under the contract, whichever is earlier. The interest on the advance payment shall stand fully recovered on release of all the progressive payments. If the amount payable under any interim bill is not sufficient to cover all deductions to be made for interest on the advance payment and other sums

Deductible therefrom, the balance outstanding shall be recovered from the next payments immediately falling due.

- Notes:**
1. The bidder shall furnish a detailed break-up for the Erection Price Component of the package which shall be mutually discussed and finalized with the Owner. Progressive payment for Erection will be made against monthly bills based on certification by the Project Manager the work completed.
 2. In case, the Contractor decides not to take interest bearing advance payment as on D (I), the advance payment shall be proportionately adjusted in the balance payments excluding final payments.
 3. The release of first progressive payment for Installation Services shall also be subject to submission of documentary evidence by the Contractor towards having taken the insurance policy(ies) in terms of relevant provisions of GCC Clause 34 (Insurance) and acceptance of same by the Project Manager.

BIDDING DOCUMENT NO.:	 PACKAGE FOR PROJECT SECTION-IV (GCC)	PAGE 37 OF 87

4. In case the Installation Price (excluding Civil/Structural works price) is more than **20%** of the Ex-works Price of Main Equipment, the amount by which it is higher shall be retained while releasing progressive payments due on installation of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid along with payment due on completion of Trial Operation / Completion of Facilities

E. Schedule No. 3: Civil Works and Allied Works etc.

The Civil Works Price Component of the Contract Price shall be paid as under

- (I) **Ten Percent (10 %)** of the total Civil works Price component of the Contract Price will be paid to the Contractor, bearing interest at the rate of “[**SBI 1-year MCLR as on 01st April of applicable year + 150 bps**] per annum” as advance payment on:

- (i) Acceptance of Notification of Award and Signing of Contract Agreement.
- (ii) Submission of an unconditional Bank Guarantee(s) towards Performance Security(s) in respect of all Contracts initially valid upto (ninety) 90 days after the end of Defects Liability Period of the last equipment covered under the contracts.

The proforma of Bank Guarantee is enclosed in Section-VII, Form of Performance Security.

- (iii) In case of Joint Deed of Undertaking by the contractor alongwith his Collaborator/ Associate forms part of the contract then submission of an unconditional Bank Guarantee from such Collaborators/Associates towards faithful performance of the Joint Deed of Undertaking for an amount specified in the deed and valid upto ninety (90) days after the end of defect liability period of all equipment covered under the contract. The proforma of Bank Guarantee is enclosed in Section-VII- Form of Performance Security. – If Applicable –
- (iv) Submission of a detailed PERT Network based on the work schedule stipulated in Appendix-4 to Form of the Contract Agreement and its approval by the Employer.
- (v) T&P mobilisation as identified along with PERT network for start of Civil Works and Certification thereof by the Engineer-in-Charge.
- (vi) Submission of an unconditional Bank guarantee for an **for an amount equivalent to one hundred ten percent (110%) of the advance amount** plus GST as applicable on the advance payment to be paid to the contractor, which shall be initially kept valid upto ninety (90) days beyond the schedule date for successful 'Completion of all Facilities under the Package. However, in case of delay in completion of the facilities covered under the package, the validity of this advance Bank Guarantee shall be extended by the period of such delay. The proforma of the Bank Guarantee is enclosed in Section-VII - Bank Guarantee Form for Advance Payment.

Advance Payment for Civil works price components shall be released after certification of Engineer-in-Charge that the Contractor has brought to site the Safety equipments & Safety Personal Protective Equipments as per minimum quantity specified in the Bidding Documents.

In case the Contractor decides not to take advance payment, the first progressive payment for Installation services price component shall be released after certification of Engineer-in-Charge that the Contractor has brought to site the Safety equipments & Safety Personal Protective Equipments as per minimum quantity specified in the Bidding Documents.

- (II) **Eighty Percent (80 %)** of the total Civil Works Price Component of Contract Price shall be paid progressively on certification by the Project Manager for the quantum of work completed/Milestones achieved and by Project Manager's field quality surveillance representative for the successful completion of quality check points involved in the quantum of work / Milestones billed.

The release of first progressive payment for Civil Works shall also be subject to submission of documentary evidence by the Contractor towards having taken the insurance policy(ies) in terms of relevant provisions of GCC Clause 34 (Insurance) and acceptance of same by the Project Manager.

- (III) **Ten Percent (10%)** of Ex-works price component of the Contract price on Completion of Facilities of Entire Project and issuance of Completion Certificate by the project manager.

- (IV) Recovery of the interest component on the advance amount shall be made from the progressive payments released to the Contractor as per E (II) above. The amount of interest to be recovered from a particular bill shall be calculated "[SBI 1-year MCLR as on 01st April of applicable year + 150 bps] per annum" on the value of advance corresponding to the %age of total progressive payment being released. The period for which the interest is to be calculated shall be reckoned from the date of release of the advance payment to the actual date of release of the said progressive payment or the expiry of the stipulated time frame for release of such progressive payment under the contract, whichever is earlier. The interest on the advance payment shall stand fully recovered on release of all the progressive payments. If the amount payable under any interim bill is not sufficient to cover all deductions to be made for interest on the advance payment and other sums deductible there from, the balance outstanding shall be recovered from the next payments immediately falling due.

Note: Further break-up of the above percentages for making payments for the billing period shall be furnished by contractor and will be discussed and agreed to by the Employer in the Billing Break-up.

In case, the Contractor decides not to take interest bearing advance payment, the advance payment shall be proportionately adjusted in the balance payments excluding final payments.

F. Operation and Maintenance Charges

After completion of trial run as defined in bid documents, operation and maintenance charges including all consumable, spares and equipments included in operation and maintenance charges shall be paid on pro-rata basis every three months on the certification of completion of work by Project Manager.

Bidders shall quote their O&M charges for first year and O&M charges from 2nd year till 10th year shall be auto calculated based on O&M charges for 1st year and annual escalation factor @ 5.25%.

In case total O&M Cost for 10 years is less than 13.5% of EPC Price, the amount by which it is lower shall be retained from the Ex-Works component of Contract price while releasing payments due on receipt of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid on pro- rata basis i.e 10% of it shall be released every year upon completion of O&M Period and its certification by the project manager.

G. Payment terms for Price Adjustment Amount NOT APPLICABLE

H. Schedule - 6: Payment Terms for Taxes & Duties

100% of applicable Taxes and Duties which are payable by the Employer under the Contract shall be paid/reimbursed to the Contractor upon receipt of equipment/spare/services and on production of satisfactory documentary evidence by the Contractor. However, GST as applicable in Advance payment shall be paid to the Contractor along with the Advance sanctioned. The GST paid along with the advance shall be adjusted prorata against the tax due upon supply of goods/services, based on the value of the respective goods/services.

I. Additional Advance Payment:

An Additional Advance upto 5% of the Ex works/Installation Services (including Civil Works) price component, apart from the Advance already provided for in the specified Terms of Payment, may be paid to the Contractor which shall be interest bearing and against Bank Guarantee of 110% of the advance requested and covering the interest charges. The advance amount shall be provided during various phases of Contract execution to meet the requirement of payment by the Contractor to the contractor's sub-vendors/sub-contractors but in aggregate shall not exceed 5% of the Ex-works/Installation Service (including Civil Works) Price Component. The advance amount shall be released in Indian Rupees only and Tax implication, if any, shall be to the account of the Contractor.

While applying for advance under this provision, the contractor shall provide a statement of past payment utilization evidencing the need for cash flow support and also plan for utilization of the amount requested as per above. The advance shall be provided in exceptional circumstances to enable work to be carried out. ~~The advance amount shall be transferred to an ESCROW account (to be opened by the Contractor in any Scheduled Bank of India under intimation to the Employer) and after availing the advance, the contractor will be required to submit proof of utilization, as per the recovery plan submitted to NVVN.~~

The advance amount shall be interest bearing and rate of interest to be notified by NVVN from time to time. This advance shall not be lumpsum advance, but shall be provided in phase to tide over the financial constraints being faced by the contractor, along with the progress of work. The requirement of this advance shall be with the approval of the NVVN Head of Project.

The recovery of the interest component on the advance amount shall be made from subsequent progressive payment to be released to the contractor.

The period for which the interest to be calculated, shall be reckoned from the date of release of the Additional Advance(s) to the actual date of release of subsequent progressive payments as per the Plan to be agreed with the Contractor.

The advance amount shall be recovered from the milestone payment to be agreed between Employer and the Contractor.

J. Schedule – 3: Amount linked to Safety Aspects / Compliance to Safety Rules

The amount linked to Safety Aspects/ compliance to Safety Rules shall be paid in two parts, viz,

10% amount (calculated as 0.1 Y of the service portion amount of RA bill) shall be linked to Fatal/Major Accidents, and

90% amount (calculated as 0.9 Y of the service portion amount of RA bill) shall be linked to various Safety Aspects specified in Safety Rules of NTPC/NVVN.

NOTE:

$$Y = \frac{\text{(Amount linked to Safety Aspects/ Compliance to Safety Rules specified in Price Schedule)}}{\text{(Total amount for Service Portion of the Contract, i.e. Civil + Installation/ Erection + Structural Works)}} \times 100$$

While raising each RA Bill, Contractor shall claim Amount linked to Safety Aspects/ Compliance to Safety Rules in such a manner that amount claimed is equal to Y% of the service portion (Civil + Installation/ Erection + Structural Works) of RA Bill.

The amount linked to safety shall be paid to the contractor upon complying the following conditions:

Amount of RA Bill linked to Fatal/ Major Accidents (0.1Y as elaborated above at para J.1.A) Aforesaid amount shall be payable to Contractor only in case, there is
No fatal injury or accident causing death in the claim period and
No Major injury or accident causing 25% or more permanent disablement to workmen or employees in the claim period. Permanent disablement shall have the same meaning as indicated in The Workmen's Compensation Act' 1923.

In case of any fatal injury or accident as elaborated above occurs during the claim period, the stipulated amount (0.1Y) subject to minimum of Rs 10 Lakh per fatality shall be forfeited

and shall not be payable to the Contractor under the contract. In case, the amount to be deducted/forfeited exceeds the amount linked to Fatal/ Major Accidents, the same shall be recovered from remaining Amount (0.9Y) linked to Compliance of Safety Rules and/or any other payments immediately due to the Contractor under the Contract.

In case of any Major injury or accident causing 25% or more permanent disablement to workmen or employees occurs during that three month period, Rs 5 lakh per Major injury shall be deducted from the amount (0.1Y) linked to Fatal/ Major Accidents and shall not be payable to the Contractor under the contract. In case, the amount to be deducted/forfeited exceeds the amount linked to Fatal/ Major Accidents, the same shall be recovered from remaining Amount (0.9Y) linked to Compliance of Safety Rules and/or any other payments immediately due to the Contractor under the Contract.

Further, in case, Contractor doesn' t raise RA Bills in any three month period/quarter and if any fatal injury and/or major accident takes place in that period, Project Manager shall deduct the amount [Rs 10 Lakh per fatality and Rs 5 lakh per Major injury] pertaining to this particular quarter from his next RA bill/due payment. In case, the amount to be deducted/forfeited exceeds the amount linked to Safety, the same shall be recovered from any other payments immediately due to the Contractor under the Contract.

The amount deducted/forfeited as mentioned above shall be in addition to the compensation payable to the workmen / employees under the relevant provisions of the Workmen's Compensation Act' 1923 and rules framed there under or any other applicable laws as applicable from time to time.

Amount of RA Bill linked to Compliance of Safety Rules (0.9Y i.e. 90% of amount as elaborated above at para K.1.B)

Aforesaid amount (on quarterly basis) shall be payable to Contractor in five equal parts under five heads as under:

Amount payable on deployment of required Safety Personnel

One fifth of the amount specified at J.2.b (calculated as 0.18Y of Service portion amount of RA Bill), on quarterly basis, shall be paid upon certification by Project Manager that required number of Safety personnel have been deployed.

In case, actual no. of Safety personnel deployed is more than requisite number (i.e. a/b is more than 1), the amount to be paid shall be restricted to 0.09Y.

In case aforesaid requisite no. of Safety personnel are not deployed by Contractor, amount not to be paid as calculated above for that particular quarter/three month period shall be forfeited and shall not be payable to the Contractor under the contract.

Amount payable on providing requisite Personal Protective Equipment & Safety Equipment

One fifth of the amount specified at J.2.b (calculated as 0.18Y of Service portion amount of RA Bill), on quarterly basis, shall be paid upon certification by Project Manager that Contractor has adhered to the requirements of Clause 4 (Personal Protective Equipment)

of NTPC/NVVN Safety Rules for Construction and Erection of Power Plants’ and the provisions of the Bidding Documents with regards to number of Safety Equipment/PPEs to be provided by the Contractor.

In case of non-compliance by Contractor, warning letter/Non-compliance shall be issued by Project Manager of NVVN as per clause 22.3.3 (ii) of GCC. Further, if more than two such warning letters/Non Compliance Memos are issued in a quarter/three monthly period, above mentioned amount for that particular quarter/three month period shall be forfeited and shall not be payable to the Contractor under the contract.

Amount payable on providing requisite Safety Induction and Training

One fifth of the amount specified at J.2.b (calculated as 0.18Y of Service portion amount of RA Bill), on quarterly basis, shall be paid upon certification by Project Manager that Contractor has adhered to the requirements of imparting Safety training as per Clause 8.0 (Safety Induction and Training) of NTPC/NVVN Safety Rules for Construction and Erection of Power Plants to at least 90% of its employees/workmen (who have not been previously provided with requisite training) in a quarter/ three months period.

In case Contractor fails in meeting the aforesaid requirement, above mentioned amount for that particular quarter/three month period shall be forfeited and shall not be payable to the Contractor under the contract.

Amount payable on providing requisite Medical and First Aid Amenities

One fifth of the amount specified at J.2.b (calculated as 0.18Y of Service portion amount of RA Bill), on quarterly basis, shall be paid upon certification by Project Manager that Contractor has adhered to the requirements of Clause 13 (Medical and First Aid Amenities) of NTPC/NVVN Safety Rules for Construction and Erection of Power Plants’ .

In case Contractor fails to provide Medical and first aid amenities as per requirement of aforesaid Clause 13 even on one incidence in any quarter/three month period, above mentioned amount for that particular quarter/three month period shall be forfeited and shall not be payable to the Contractor under the contract.

Amount payable on compliance to Work Permit System

One fifth of the amount specified at J.2.b (calculated as 0.18Y of Service portion amount of RA Bill), on quarterly basis, shall be paid upon certification by Project Manager in consultation with Safety dept. that Contractor has adhered to the requirements of Clause 17 (Work Permit System) of NTPC/NVVN Safety Rules for Construction and Erection of Power Plants.

In case of non-compliance by Contractor, warning letters/Non Compliance Memos shall be issued by Project Manager of NTPC/NVVN as per clause 22.3.3 (v) of GCC.

In case of issuance of more than two such warning letters/Non Compliance Memos in a quarter/three monthly period, above mentioned amount for that particular quarter/three month period shall be forfeited and shall not be payable to the Contractor under the contract

In case ' Amount linked to Safety Aspects / compliance to Safety Rules' is less than 5 % of the cumulative total of Service Portion of the Contract, i.e. Civil + Installation/ Erection + Structural Works, the amount by which it is lower shall be retained proportionately from the other components of Schedule-3 of the Contract price while releasing payments of each RA bill. No interest shall be payable on the amounts linked to Safety Aspects / Compliance to Safety Rules including aforesaid retained amount. The amounts linked to Safety Aspects / Compliance to Safety Rules including aforesaid retained amount shall be payable in part or full based on safety compliance duly certified by Project Manager on quarterly basis.

PAYMENT PROCEDURES

The Procedures to be followed in making application for, certifying and making payments shall be as follows:

1. **Payment Schedule/Price Break-up for Payments**

1.1 The Contractor shall prepare and submit to the Project Manager for approval, a break-up of the Contract Price. The Contract Price break-up shall be interlinked with the agreed detailed PERT network of the Contractor setting forth his starting and completion dates for the various key phases of works prepared as per condition in Clause 18 of GCC, Section- IV. Any payment under the Contract shall be made only after the Contractor's price break-up is approved by the Project Manager. The aggregate sum of the Contractor's price break-up shall be equal to the lump sum Contract Price.

1.2 ~~The Billing Breakup for Mandatory spares shall be submitted to the Employer for approval as per the format enclosed as **Annexure-1 to Appendix-1** indicating therein the details such as Make, Model number, Drawing/ Datasheet number and Part number of all spare items. The relevant drawings/ documents shall be submitted along with the Billing Break up.~~

1.3 The Contractor shall, by the 15th April of every year, furnish the BBU value of supplies sourced from Micro and Small Enterprises (MSEs) along with the total BBU value of supplies dispatched by it during the preceding financial year as per the format enclosed as **Annexure-2 to this Appendix-1**.

2. **Currency of Payment**

2.1 The Contract Price shall be paid in Indian currency only.

3. **Application for Payment**

3.1 The Contractor shall submit application for the payment in the proforma enclosed.

3.2 Every interim payment certificate shall certify the Contract Value of the Facilities executed up to the date mentioned in the application for the payment certificate, provided that no sum shall be included in any interim payment certificate in respect of the Facilities that according to the decision of the Project Manager, does not comply with the Contract, or has been performed, at the date of certificate prematurely.

3.3* The Employer has established a Vendor Payment portal where Vendor/Contractor shall submit their digital bill/invoice and may track its status. The Application for Payment along with all the supporting documents (for direct payment cases as mentioned in Para 5.2 below) shall be submitted by the Vendor/Contractor in digital form i.e. digitally signed with Class-2/3 digital Signature and must be uploaded in the Employer's Vendor Payment Portal. No hard/physical copy of such documents will be accepted by the Employer unless otherwise asked for in the PO or instructed by Employer.

- 3.4 FAQ (Frequently asked questions with answers) regarding Invoice submission in digital mode is available at https://pradip.ntpc.co.in/VendorFinal/FAQ_VPP.pdf .

4. **Due Dates for Payment**

- 4.1 The advance payment amount shall be payable after fulfillment of all the conditions laid down in the Terms of Payment (Appendix 1 to the Contract Agreement) and receipt of the Contractor's invoice along with all necessary supporting documents for such advance payment. Employer will make progressive payment as and when the payment is due as per the Terms of Payment set forth in Appendix 1 to the Contract Agreement. Progressive payment other than that under the letter of credit will become due and payable by the Project Manager within thirty (30) days from the date of receipt of Contractor's bill/invoice/debit note by the Employer, provided the documents submitted are complete in all respects.
- 4.2 In cases of any discrepancy observed by the Employer in Contractor's bill, clarifications shall be sought in writing by the Employer within ten (10) days from the date of receipt of Contractor's bill/invoice/debit note by the Employer. The Contractor shall be required to submit the requisite clarifications within ten (10) days from the date of issuance of queries by the Employer. In case, no mutual agreement is reached between the Employer and the Contractor on any part of the bill/invoice, within ten (10) days of submission of clarification by the Contractor, the Contractor shall issue a revised bill/invoice to avoid mismatch in GST returns of the Employer and the Contractor. Payment against agreed and admissible part shall be processed as per payment procedure within ten (10) days after receipt of the revised bill/invoice. The bill/invoice for the balance amount under question may be separately submitted for consideration of the Employer after resolution of issues of payment by the Employer. In case of non-submission of satisfactory clarification by the Contractor within the stipulated period, NVVN shall not be liable for the delay in making payment. If the bill submitted by Contractor is incorrect and has gross discrepancies, the bill shall be summarily rejected and returned to the Contractor. In the event of dispute, the same shall be settled as per GCC Clause (Settlement of Disputes).
- 4.3 Vendor/Contractor can track the status of their digitally submitted Bill/Invoice in the NTPC Vendor Payment Portal.

5. **Mode of Payment**

- 5.1 The Employer will establish an irrevocable Letter of Credit (L/C) in favor of the Contractor through the Employer's Bank in Employer's country for payments due, as per Terms of Payment, on dispatch of equipment i.e. Ex-works dispatch of equipment. The value of L/C will be as per payment schedule for each quarter and valid for a quarter. It will be the responsibility of the Contractor to utilize the L/C to the fullest extent. In case L/C has been established by the Employer and not utilized by the Contractor, for reasons of delay

attributable to him, all reinstatement charges for the L/C for further period necessitated due to non-utilization of L/C will be to the account of the Contractor.

- 5.2 The payment of the advance amount, ~~Type test~~ Charges if any, price adjustment amounts, all other supply payments, taxes and duties (wherever admissible) inland transportation insurance, Installation Portion of the Facilities and Civil, structural and allied works (if any) shall be made direct to the Contractor by the Employer and no L/C shall be established by the Employer for such payments. Wherever technically feasible, such payments shall be made electronically only as per details of Bank Account indicated in the contract. In case of any changes to the bank account indicated in the contract, the contractor shall immediately inform the employer. The Contractor shall hold the employer harmless and employer shall not be liable for any direct, indirect or consequential loss or damage sustained by the bidder on account of any error in the information or change in Bank details provided to the employer in the prescribed form without information to employer duly acknowledged.

5.3 **Alternate Mode of Payment for Micro Small & Medium Enterprises (MSMEs):**

Trade Receivables e-Discounting System (TReDS) is a regulatory framework put in place by the Reserve Bank of India under the Payment and Settlement Systems Act 2007 (PSS Act) to facilitate the financing of trade receivables (invoices) of MSMEs through invoice financing by multiple financiers.

The Reserve Bank of India has granted approval to (i) Mynd Solutions Pvt Limited, (ii) A.TReDS Ltd. and (iii) Receivables Exchange of India Ltd to set up and operate TReDS platform. The name of respective TReDS platform of the above-mentioned entities are M1xchange, Invoicemart and RXIL.

Presently, NTPC Limited is transacting with M1xchange and RXIL TReDS platforms. MSME Vendors may choose from the aforesaid TReDS platforms as an alternate payment mechanism.

For queries/ details, the vendor may directly contact M1xchange or RXIL at:-

- (i) M1XCHANGE:- URL: <https://m1xchange.com> Toll free No.: 1400-103-7261
- (ii) RXIL:- URL: <https://www.rxil.in/Home/Index> Phone: 022-40771424, 40771426 Toll free No.: 1400 1038 311

The aforesaid provision at 5.3 above shall not be applicable for payments envisaged through “Letter of Credit (LC)” or “Escrow Account” or “A separate account with a Scheduled Bank at Site”

6. **For payments related to Erection / Civil / Site Fabricated Structural works**

~~A single designated ESCROW account shall be opened by the Contractor in any Scheduled Bank of India under intimation to Employer. All payments related to Erection /~~

Bidding Document No NVVN/ C&M /RE-310 /2024-25	DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

~~Civil / Site Fabricated Structural works by the Employer due under the contract to the Contractor shall be released into above mentioned ESCROW account set up as per the Tri-Partite Escrow Agreement between Employer, Contractor and Escrow Bank. The payment shall be disbursed in accordance with the mechanism set out in the Contract and Escrow Agreement. The purpose of the Escrow Account would be to ensure that payments received under the contract are solely used for implementation of the Contract. Under Tri-partite Escrow Agreement, the Escrow Bank will agree to ensure that amounts received in the ESCROW Account are utilized for making payments only to suppliers of goods and services, statutory authorities, establishment expenses etc. as may be required in the performance of the contract.~~

- ~~———— All expenses/charges for opening /operation (including Annual Fee) of the Escrow Account shall be paid by the Contractor.~~
- ~~———— The draft agreement is annexed as Annexure 3 to this Appendix-1, which shall be followed for executing Escrow Account Agreement.~~
- ~~———— The Detailed Operative Procedure and Terms and Conditions of Escrow Account (Schedule III of draft agreement) shall be finalized between the Employer, Contractor and the Escrow Bank within 15 days of the placement of award.~~

Note:

All the payment due in previous month and billed shall be released only once a month.

FORM OF APPLICATION FOR PAYMENTS

Project :
Equipment Package : Date :
Name of Contractor : Contract No. :
Contract Value : Contract Name :
Unit Reference : Applicable Serial
To. Number :

.....*

(Name of Employer)

Dear Sir

APPLICATION FOR PAYMENT

1. Pursuant to the above referred Contract Agreement dated.....
the undersigned hereby applies for payment of the sum of
.....(Specify amount and currency in which
claim is made).
2. The above amount is on account of : (check whichever applicable)

Advance payment (Schedule **)

Interim payment as advance (Schedule **)

Progressive payment against dispatch of equipment (Schedule **)

Progressive payment against receipt of equipment (Schedule **)

Progressive payment against Installation (Schedule **)

Inland transportation (Schedule **)
Inland insurance

Price adjustment

Extra work not specified in contract
(Ref. Contract change order No.....)

Others (specify)

Final payment (Schedule **)

as detailed in the attached schedule(s) which form an integral part of this
application.
3. The payment claimed is as per item(s) No.(s)..... of the
payment schedule annexed to the above mentioned Contract.
4. The application consists of this page, a summary of claim statement (Schedule
**), and the following signed schedules

1

2

3

The following documents are also enclosed :

1

2

3

Signature of Contractor/
Authorised Signatory

* Application for payment will be made to 'Project Manager' as to be designated for this purpose at the time of Notification of Award.

** Proforma for the Schedules will be mutually discussed and agreed to during the finalization of the Contract Agreement.

Annexure-1 to Appendix-1

PROJECT		CLIENT :	
PACKAGE			
TITLE :	BILLING BREAK UP FOR MANDATORY SPARES	CONTRACTOR	
		R :	
NOA REF :	CS.....		
BILLING			
BREAKUP			
(BBU) NO. :			

Sl.No.	Description	Quantity	Unit	Unit Price	Total Price	Equipment Make	Equipment Model	Drawing / Documents/Data Sht no.	Part No.	Remarks

Annexure-2 to APPENDIX-1

Proforma for details to be furnished by the Contractor by 15th April of every financial year of supplies sourced from MSEs dispatched during the preceding financial year.

Package Name:

Project Name:

Name of the Contractor:

COA No.:

Details of BBU value of supplies dispatched during the preceding financial year are furnished here below:

BBU value of total supplies dispatched (A) (in eqvt INR)	Out of the total supplies dispatched, BBU value of supplies sourced from MSEs (B) (in eqvt INR)	Percentage of supplies sourced from MSEs wrt total supplies dispatched (C = B*100/A) (%)

.....

In case of no supplies sourced from MSEs, mention 'NIL'.

I, on behalf of M/s (*Contractor*) hereby declare that the information furnished above is correct.

Signature.....

Name.....

Designation and Seal.....

INSURANCE REQUIREMENTS

(I) Insurance to be taken by the Contractor :

In accordance with the provisions of GCC Clause 34, the Contractor shall at his expense take out and maintain in effect, or cause to be taken out and maintained in effect, during the performance of the Contract, the insurances set forth below in the sums and with the deductibles and other conditions specified herein. The identity of the insurers and the form of the policies shall be subject to the approval of the Employer, such approval not to be unreasonably withheld.

Insurance	Amount insured	Deductible	Conditions
A. Marine Cargo	(i) 110% of Ex-works value in case of plant & equipment and Type Tests Charges including all spare parts manufactured within the Employer's Country. Not applicable (ii) Applicable taxes and duties (iii) Escalation 5% on (i) & (ii)		(i) Employer to be named as coinsured (ii) Open policy (iii) All risk institute cargo clause 'A' (iv) War, SRCC, terrorism. (v) Institute replacement clause, special replacement clause (Air duty) and deferred unpacking clause (vi) Insurers right of subrogation against all parties (excluding carrier) waived. (vii) Warehouse to warehouse basis.
B. Installation all risk	(i) 110% of Ex-works value of plant & equipment including ~~Type test~~ Charges (ii) Applicable taxes and duties (iii) Cost of indigenous procurement and free issue materials (iv) Cost of erection works (iv) Cost of Civil, Structural & Allied works (iv) 10% escalation on (i) (ii), (iii), (iv) & (v)	Minimum as per insurance policy	(i) Installation risk, RSMTD, including Earthquake cover (ii) Air freight cover. (iii) Extra charge cover. (iv) Maintenance cover (v) Contractor's plant & machinery - Rs. 100 lakhs. (vi) Cross liability. (vii) Additional custom duty for imported machine (if any) for adequate value. (viii) Employer & Contractor's Sub-Contractor to be named as co-insured.
C. Third Party liability (Extension of MCE/EAR Policy)	For any one occurrence Rs. 50.00 lakhs	Nil	(i) Contractors, sub-contractors to be named as co-insured.

Insurance	Amount insured	Deductible	Conditions
D. Automobile liability			
(i) M.V. policy for motor vehicles, private cars & commercial vehicles		-----	As per local M.V. Act.
(ii) CPM policy for heavy construction equipment	Anything above Rs.100 lakhs covered under erection all risk policy		
E. Workmen's Compensation _____ As per statute _____			
F. Employer's liability	_____As per statute_____		Cumulative to workmen's compensation to cover liability not covered thereby.
G. Group personal insurance, for contractor's & sub-contractor's employees			

Note :

1. The Employer shall be named as co-insured under all insurance policies taken out by the Contractor pursuant to GCC 34.1 except for Third Party Liability, Workman's Compensation and Employer's Liability Insurances and the Contractor's Sub-Contractors shall be named as co-insured under all insurances policies taken out by the Contractor pursuant to GCC 34.1, except for the Cargo insurance during transport, Workman's Compensation and Employer's Liability Insurances. All insurers rights of subrogation against such co-insureds for losses or claims arising out of the performance of the Contract shall be waived under such policies.
2. Notwithstanding the insurance requirements mentioned above, it would be the Contractor's responsibility to take adequate insurance cover as may be pertinent to protect his interest and interest of the Employer. If at any point of time during execution of the Contract, the insurance policies are found to be inadequate, the Contractor shall take fresh insurance policies meeting aforesaid requirements. The Employer reserves the right to make suitable recovery from the Contractor, if any.

3. Any loss or damage to the plant and equipment during handling, transportation, storage, installation, commissioning, and all activities to be performed till the "Completion of Facilities" shall be to the account of the contractor. The contractor shall be responsible for preference of all claims and make good the damages or loss by way of repairs and/or replacement of plant and equipment damaged or lost. Notwithstanding the extent of insurances cover and the amount of claim available from the underwriter, the contractor shall be liable to make good the full replacement/rectification of all the equipment/materials and to ensure their availability as per project requirement without additional financial liability to the Employer.

The insurance should be in the Indian currency and insurance policy to be taken should be on replacement value basis and/or incorporating appropriate insurance clause.

The Contractor shall follow local acts and laws as may be prevalent for insurance.

4. Upon grant of extension of time for completion by Employer, the Contractor shall promptly furnish documentary evidence to Project Manager towards extension of insurance policies for the period of time extension.

II) Insurances to be taken by the Employer.

The Employer shall take the insurance for its own employees, its stores and its machinery.

TIME SCHEDULE

- 1.0 It is clearly understood and agreed that time is the essence of this Contract and shall be strictly adhered to by the Contractor. The program of furnishing, erecting, testing, commissioning and completion of facilities identifying the key phases in various areas of work like design, procurement, manufacture, field activities shall be as per detailed PERT Network/L2 Schedule enclosed as Annexure-I. As per this detailed PERT Network, the key milestones for completion of facilities are as under

S. No.	Activities/Milestones for Solar Plants	Period from Issuance of LoA (Days)	
		Start	Finish
1.	Site Mobilization, Site office opening & Preparatory works	0	30
2.	Basic Engineering and approval from NVVN - Solar plant Layout - MMS design - SLD - Data sheet - Modules, Inverters and Transformers (if required) - Safety plan	20	40
3.	Detailed Engineering and Approval from NVVN	40	50
4.	Approvals for connectivity	0	60
Solar Plant Works –DC Side			
5.	Supply of Module Mounting Structures	60	80
6.	Foundations & Installation of Module Mounting Structures	80	110
7.	Supply of SPV Modules	70	100
8.	Installation of SPV Modules	90	120
9.	Supply of DC Cables	70	100
10.	Laying of DC Cables	100	120
Solar Plant Works –AC Side			
11.	Supply of inverters	80	110
12.	Installation of inverters	120	135
13.	Supply of AC cables	80	110
14.	Installation of AC cables	125	150
15.	Supply of transformer (If required) & other electrical equipment	90	120
16.	Installation of transformer (If required) & other electrical equipment	150	170
Miscellaneous works			
17.	Supply of miscellaneous items viz. Lightning arrestor, Earthing system, Remote monitoring system, Module washing system, etc.	120	150
18.	Erection of miscellaneous items viz. Lightning arrestor, Earthing system, Remote monitoring system, Module washing system, etc.	150	170
19.	Testing of Equipment and Readiness of System	170	180
Commissioning and Completion of Facilities			
20.	Metering & Commissioning of the system	180	210
21.	PG test and Completion of Facilities	210	240

- 2.0 After the Notification of Award, the contractor shall plan the sequence of work of manufacture and erection to meet the above stated dates of successful completion of facilities and shall ensure all work,

manufacture, shop testing, inspection and shipment of the equipment in accordance with the required construction/erection sequence.

- 3.0 Within one month of the Notification of Award, the Contractor shall submit to the Employer for his review and approval two copies (one reproducible and one print) of detailed PERT Network/L2 Schedule with master network activities further exploded based on the Master Network mutually agreed by the employer and contractor, showing the logic and duration of the activities covered in both the First and Second Contracts in the following areas:

Engineering, procurement, manufacturing and supply, detailed engineering, procurement (including brought out items), manufacturing, despatch, shipment, receipt at site and activities related to civil works, erection, commissioning and completion of facilities.

4.0 Detailed Manufacturing Program

Detailed Manufacturing PERT Network for all the manufacturing activities and Contractor/sub-Contractors works shall also be furnished within 60 days of Notification of award. The manufacturing network shall be supported by detailed procurement program for critical bought out item/raw materials.

5.0 Pre-Erection Activity Program

The erection network will be supported by detailed Pre-erection activity program covering the following:

- A) Manpower Deployment
- B) T&P Mobilization
- C) Detailed Site Mobilization Plant

Any Tools & Plants (T&P) required for satisfactory execution of the Contract and to meet the time schedule specified in this Appendix-4 shall be mobilised by the Contractor as per direction of the Project Manager without any extra cost to the Employer. (The list of such essential Tools & Plants (T&P) to be deployed by the Contractor, if any finalised before Notification of Award, shall be enclosed as Appendix-II to this Appendix-4).

- 6.0 Within one week of approval of the network schedule, the Contractor shall forward to the Project Manager, copies of the Computer Initial run-Data. The type of outputs and number of copies of each type to be supplied by the Contractor shall be determined by the Project Manager.
- 7.0 All the networks shall be updated every month or at a frequency mutually agreed upon. Within seven days following the Monthly Review, a progress meeting shall be held, whenever possible at the works, wherein the major items of the plant or equipment are being produced. The meeting will be attended by the Project Manager and responsible representative of Contractor that the Project Manager consider necessary for the meeting.
- 8.0 Access to the Contractor's and Sub-Contractor's work shall be granted to the Project Manager at all reasonable times for the purpose of ascertaining the progress.

MASTER NETWORK

The Master Network as per para 1.0 of Appendix-4
shall be enclosed as Annexure-I to Appendix-4

LIST OF TOOLS & PLANT TO BE DEPLOYED BY THE CONTRACTOR

Sl. No.	Description of T&P	Qty. to be deployed (nos.)

LIST OF SAFETY PLANT AND EQUIPMENT AND PPE TO BE DEPLOYED BY THE CONTRACTOR

Sl. No.	Suggested List of Safety Equipment and Safety Personal Protective Equipment	Quantity*
1.	Safety Net (Conforming IS 11057:1984) Safety Net (Net Size: 10m x 5m, Mesh Size: 25 mm, Mesh Rope: 2mm double cord, Border/Tie Cord: 12mm diameter polypropylene rope (tested as per IS: 5175).Two metres length shall be provided at all four corners.	
2.	Fall Arrestor 'Rope grab fall arrester' & anchorage line. Anchorage Line: 14mm- 16 mm diameter, three strand twisted Polyamide rope. Rope Grab fall arrester: Openable & Guided type Fall Arrestor (on flexible line) conforming EN 353-2 & works on 14-16 mm diameter polyamide rope. material: Nickel Chrome plated Steel Connector: Karbiner conforming to EN 362 (Minimum Strength 22 KN), material: Steel	
3.	Horizontal life line Stainless Steel Wire rope of 8mm diameter. Minimum six nos. of steel U-bolt clips are required for clamping each wire rope to a rigid support (03 nos. of U-bolt clips at each end).	
4.	Ladders on column The minimum design live load on metallic ladder shall be a single concentrated load of 100 kilo grams. All rungs shall have a minimum diameter of 1.90 centimeters, and minimum clear length of rungs shall be 40.6 centimeters. The distance between rungs shall not exceed 30.5 centimeters. Each ladder shall have maximum height of 9.0 metre. The ladder shall have proper fastenings for attaching it to a column using positive means such as bolt, weld or other type of fasteners.	
5.	Safety PPEs (Industrial Safety helmet & Industrial Safety Shoes)	

Sl. No.	Suggested List of Safety Equipment and Safety Personal Protective Equipment	Quantity*
	Industrial Safety Helmet (IS:2925-1984 marked). Industrial Safety/Electrical Shoes (IS:15298-2002 marked). Full body Safety Harness (conforming IS:3521)	

LIST OF SUB-CONTRACTORS

PART 1. Nominated Sub-Contractors

In the event that the employer wishes to nominate any particular Sub-Contractors for the undertaking of any part or parts of the Works, these shall be identified and named by the Employer in the following schedule prior to the issue of the Bidding Documents.

Full details shall be given of the part of the Works to be executed, and the names and addresses of the Sub-Contractors to whom the part of the Works is to be sub-contracted by the Bidder. Where more than one name is given for any part of the Work, the Bidder shall be free to select any of the named Sub-Contractors for that part.

Item of Work	Nominated Sub-Contractor
NIL	

PART 2 Approved Sub-Contractors

(Prior to award of Contract the following details shall be completed indicating those Sub-contractors proposed by the Bidder by Attachment to his Bid which are approved by the Employer for engagement by the Contractor during the performance of the Works).

The following Sub-Contractors are approved for carrying out the item of work indicated. Where more than one Sub-contractor is listed, the Contractor is free to choose between them but he must notify the Employer of his choice in good time prior to appointing any selected Sub-Contractor. In accordance with Clause GCC 19.1, the Contractor is free to submit proposals for additional Sub-Contractors from time to time. No Sub-Contracts shall be placed with any such additional Sub-Contractors until they have been approved in writing by the Employer and their names added to this list of Approved Sub-Contractors.

Sl.No.	Item of Work	Approved Sub-Contractors Nationality

SCOPE OF WORKS AND SUPPLY BY THE EMPLOYER

The facilities, works, supplies and personnel to be provided/supplied by the Employer shall be as per Technical Specifications and the provisions of GCC Clauses 10, 21 and 24 shall apply as appropriate.

All facilities, works, supplies and personnel to be provided by the Employer shall be as described in Technical Specifications and the same will be provided by the Employer in good time so as not to delay the performance of the Contractor, in accordance with the approved Time Schedule and Program of Performance pursuant to GCC Sub-Clause 18.2.

LIST OF DOCUMENTS FOR REVIEW AND APPROVAL

A. Approval

- 1.
- 2.
- 3.

B. Review

- 1.
- 2.
- 3.

FUNCTIONAL GUARANTEES

The functional guarantees shall be as per Section-VI (Technical Specifications).

6. PERFORMANCE SECURITY FORM

6. Performance Security Form

(To be stamped in accordance with Stamp Act
if any, of the Country of the Issuing Bank)

Bank Guarantee No.....
Date.....

To,
[Employer's Name & Address]

Dear Sirs,

In consideration of the [Employer's Name] (hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) having awarded to M/s..... [Contractor's Name]..... with its Registered /Head Office at (hereinafter referred to as the 'Contractor', which expression shall unless repugnant to the context or meaning thereof, include its successors administrators, executors and assigns), a Contract by issue of Employer's Notification of Award No. dated..... and the same having been unequivocally accepted by the contractor, resulting into a Contract bearing No..... dated valued at for and the Contractor having agreed to provide a Contract Performance Guarantee for the faithful performance of the entire Contract equivalent to(*).....% (..... percent) of the said value of the Contract to the Employer.

We[Name & Address of the Bank].....having its Head Office at(hereinafter referred to as the 'Bank', which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Employer, on demand any and all monies payable by the Contractor to the extent of(*)..... as aforesaid at any time up to(@)..... [days/month/year] without any demur, reservation, contest, recourse or protest and/or without any reference to the Contractor. Any such demand made by the Employer on the Bank shall be conclusive and binding notwithstanding any difference between the Employer and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the Employer and further agrees that the guarantee herein contained shall be enforceable till ninety (90) days after expiry of its validity.

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

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

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

Dated this day of 20..... at.....

.....
(Signature)
.....
(Name)
.....
(Designation with Bank Stamp)
Authorised Vide Power of
Attorney No.....
Date.....

- Notes :**1. (*) This sum shall be ten percent (10%) of the Contract Price.
(@) This date will be ninety (90) days beyond the ~~Defect liability~~ period as specified in the Contract.
2. The Bank Guarantee shall be from a Bank as per provisions of the Bidding Documents.
3. The BG should be on Non-Judicial stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the state(s) where the BG is submitted or is to be acted upon or the rate prevailing in State where the BG is executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Bidder/Bank issuing the guarantee.
4. While getting the Bank Guarantee issued, the Contractor is required to ensure compliance to the points mentioned in Form of Bank Guarantee Verification Check List. Further, the Contractor is required to fill up this Form and enclose the same with the Bank Guarantee.
5. The Bank Guarantee (BG) shall be accompanied with the BG forwarding letter in the format attached as (Form no. 23) in the bidding documents.
6. In case, Bank Guarantee is getting issued from State Bank of India, Bidder to take note of NTPC letter ref. NTPC/FC/CS/BG/01 dated 03.09.2014 and SBI letter ref. CAG-I/AMT-1/2014-15/370 dated 04.09.2014 (attached with Section-V of Bidding Documents).

6a. Performance Security Form - NOT APPLICABLE

Form 6b. Insurance Surety Bond towards Performance Security

(To be stamped in accordance with Stamp Act of India)

Insurance Surety Bond No.

Date.....

To,

[Employer's Name & Address]

Dear Sirs,

In consideration of the [Employer's Name] (Hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) having awarded to M/s..... [Contractor's Name]..... with its Registered /Head Office at (Hereinafter referred to as the 'Contractor', which expression shall unless repugnant to the context or meaning thereof, include its successors administrators, executors and assigns), a Contract by issue of Employer's Notification of Award No. dated..... and the same having been unequivocally accepted by the contractor, resulting into a Contract bearing No..... dated, valued at for and the Contractor having agreed to provide a Contract Performance Guarantee for the faithful performance of the entire Contract equivalent to(*).....%(..... percent) of the said value of the Contract to the Employer.

We[Name & Address of the Insurer].....having its Head Office at(hereinafter referred to as the 'Insurer', which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Employer, on demand any and all amount payable by the Contractor to the extent of(*)..... as aforesaid at any time up to(@)..... [days/month/year] without any condition, demur, reservation, contest, recourse or protest and/or without any reference to the Contractor. Any such demand made by the Employer on the Insurer shall be conclusive and binding notwithstanding any difference between the Employer and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Insurer undertakes not to revoke this Insurance Surety Bond during its currency and or any period extended under the contract, without prior consent of the Employer and further agrees that the guarantee herein contained shall be enforceable till ninety (90) days after expiry of its validity.

The Employer shall have the fullest liberty, without affecting in any way the liability of the Insurer under this Insurance Surety Bond, from time to time to extend the performance of the Contract by the Contractor for the purpose of which, the Insurer shall be liable to extend the validity of the present Insurance Surety Bond without any demur, condition, protest and the Insurer shall at no point in time have an option of revoking the same, The Employer shall have the fullest liberty, without affecting this Insurance Surety Bond, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Contractor, and to exercise the same at any time in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied, in the Contract between the Employer and the Contractor or any other course or remedy or security available to the Employer. The Insurer shall not be released of its obligations under these presents by any exercise by the Employer of its liberty with reference to the aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the Employer or any other indulgence shown by the Employer or by any other matter or thing whatsoever which under law would, but for this provision, have the effect of relieving the Insurer.

The Insurer also agrees and undertakes that the Employer at its option shall be entitled to enforce this Insurance Surety Bond against the Insurer as a Surety, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee that the Employer may have in relation to the Contractor's liabilities.

Notwithstanding anything contained hereinabove our liability under this Insurance Surety Bond is restricted to(*)..... and it shall remain in force upto and including(@)..... and shall be extended from time to time for such period (not exceeding one year), as may be desired by M/s[Contractor's Name]..... on whose behalf this Insurance Surety Bond has been given.

Dated this day of 20..... at.....

Bidding Document No NVVN/ C&M /RE-310 /2024-25

DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR
PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

WITNESS :

1.
(Signature)
.....
(Name)
.....
(Official Address)

.....
(Signature)
.....
(Name)
.....
(Designation with Insurer Stamp)

Authorised Vide Power of
Attorney No.....
Date.....

2.
(Signature)
.....
(Name)
.....
(Official Address)

Notes : 1. (*) This sum shall be ten percent (10%) of the Contract Price.

(@) This date will be ninety (90) days beyond the ~~Defect liability~~ period as specified in the Contract.

2. The Insurance Surety Bond shall be from an Insurer as per guidelines issued by Insurance Regulatory and Development Authority of India (IRDAI).
3. The Employer shall be the Creditor, the Contractor shall be the Principal debtor and the Insurance company/Insurer shall be the Surety in respect of the Insurance Surety Bond to be issued by the Insurer.
4. The Insurance Surety Bond should be on Non-Judicial stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the state(s) where the Insurance Surety Bond is submitted or is to be acted upon or the rate prevailing in State where the Insurance Surety Bond is executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Bidder/Insurer issuing the Insurance Surety Bond.
5. While getting the Insurance Surety Bond issued, the Contractor is required to ensure compliance to the points mentioned in Form of Bank Guarantee/ Insurance Surety Bond Verification Check List. Further, the Contractor is required to fill up this Form and enclose the same with the Insurance Surety Bond.

Form: 6C Insurance Surety Bond towards Performance Security

(To be stamped in accordance with Stamp Act of India)

(In case of Contract awarded to Joint Venture)

Insurance Surety Bond No.

Date.....

To,

[Employer's Name & Address]

Dear Sirs,

In consideration of the [Employer's Name] (hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) having awarded to a Joint Venture consisting of M/s..... [1st Partner's Name]..... with its Registered /Head Office at and M/s..... [2nd Partner's Name]..... with its Registered /Head Office at (hereinafter referred to as the 'Contractor', which expression shall unless repugnant to the context or meaning thereof, include its successors administrators, executors and assigns), a Contract by issue of Employer's Notification of Award No. dated..... and the same having been unequivocally accepted by the contractor, resulting into a Contract bearing No..... dated valued at for and the Contractor having agreed to provide a Contract Performance Guarantee for the faithful performance of the entire Contract equivalent to(*).....% (..... percent) of the said value of the Contract to the Employer.

We[Name & Address of the Insurer].....having its Head Office at(hereinafter referred to as the 'Insurer', which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Employer, on demand any and all amount payable by the Contractor to the extent of(*)..... as aforesaid at any time upto(@)..... [days/month/year] without any condition, demur, reservation, contest, recourse or protest and/or without any reference to the Contractor. Any such demand made by the Employer on the Insurer shall be conclusive and binding notwithstanding any difference between the Employer and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Insurer undertakes not to revoke this Insurance Surety Bond during its currency and or any period extended under the contract, without prior consent of the Employer and further agrees that the guarantee herein contained shall be enforceable till ninety (90) days after expiry of its validity.

The Employer shall have the fullest liberty, without affecting in any way the liability of the Insurer under this Insurance Surety Bond, from time to time to extend the time for performance of the Contract by the Contractor for the purpose of which, the Insurer shall be liable to extend the validity of the present Insurance Surety Bond without any demur, condition, protest and the Insurer shall at no point in time have an option of revoking the same. The Employer shall have the fullest liberty, without affecting this Insurance Surety Bond, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Contractor, and to exercise the same at any time in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied, in the Contract between the Employer and the Contractor or any other course or remedy or security available to the Employer. The Insurer shall not be released of its obligations under these presents by any exercise by the Employer of its liberty with reference to the matters aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the Employer or any other indulgence shown by the Employer or by any other matter or thing whatsoever which under law would, but for this provision, have the effect of relieving the Insurer.

The Insurer also agrees that the Employer at its option shall be entitled to enforce this Insurance Surety Bond against the Insurer as a Surety, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee that the Employer may have in relation to the Contractor's liabilities.

Notwithstanding anything contained hereinabove our liability under this Insurance Surety Bond is restricted to(*)..... and it shall remain in force upto and including(@)..... and shall be extended from time to time for such period (not exceeding one year), as may be desired by Joint Venture consisting of M/s..... [1st Partner's Name]..... and M/s..... [2nd

Partner's Name]..... with its Registered /Head Office at on whose behalf this Insurance Surety Bond has been given.

Dated this day of 20..... at.....

WITNESS :

1. ....	.....
(Signature)	(Signature)
.....	
(Name)	(Name)
.....	
(Official Address)	(Designation with Insurer Stamp)
	Authorised Vide Power of Attorney
	No.....
	Date.....

2.

(Signature)

.....

(Name)

.....

(Official Address)

- Notes :** 1. (*) This sum shall be ten percent (10%) of the Contract Price.
- (@) This date will be ninety (90) days beyond the period as specified in the Contract.
2. The Insurance Surety Bond shall be from an Insurer as per guidelines issued by Insurance Regulatory and Development Authority of India (IRDAI).
3. The Employer shall be the Creditor, the Contractor shall be the Principal debtor and the Insurance company/Insurer shall be the Surety in respect of the Insurance Surety Bond to be issued by the Insurer.
4. The Insurance Surety Bond should be on Non-Judicial stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the state(s) where the Insurance Surety Bond is submitted or is to be acted upon or the rate prevailing in State where the Insurance Surety Bond is executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Bidder/Insurer issuing the Insurance Surety Bond.
5. While getting the Insurance Surety Bond issued, the Contractor is required to ensure compliance to the points mentioned in the Form of Bank Guarantee/ Insurance Surety Bond Verification Check List. Further, the Contractor is required to fill up this Form ... and enclose the same with the Insurance Surety Bond.

6D. Performance Security Form for O&M Contract

(To be stamped in accordance with Stamp Act if any, of the Country of the Issuing Bank)

Bank Guarantee No.....
Date.....

To,

[Employer's Name & Address]

Dear Sirs,

In consideration of the [Employer's Name]..... (Hereinafter referred to as the „Employer“ which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) having awarded to M/s.....

[Contractor]..... with its Registered /Head Office at (hereinafter referred to as the „Contractor“, which expression shall unless repugnant to the context or meaning thereof, include its successors administrators, executors and assigns), a Contract by issue of Employer's Notification of Award No. dated..... and the same having been unequivocally accepted by the contractor, resulting into a Contract bearing No. dated valued at for and the Contractor/M/s

.....((hereinafter referred to as the „OEM/associate Party“, which expressions shall unless repugnant to the context or meaning thereof, include its successors administrators, executors and assigns),) having agreed to provide a Contract Performance Guarantee for the faithful performance of the entire Contract equivalent to(*).....% (..... percent) of the said value of the Contract to the Employer.

We[Name & Address of the Bank]..... having its Head Office at (hereinafter referred to as the „Bank“, which expressions shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Employer, on demand any and all monies payable by the Contractor/OEM/associate Party to the extent of.....(*)..... as aforesaid at

any time upto.....(@)[days/month/year] without any demur, reservation,

contest, recourse or protest and/or without any reference to the Contractor/OEM/associate party. Any such demand made by the Employer on the Bank shall be conclusive and binding notwithstanding any difference between the Employer and the Contractor/OEM/associate party or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the Employer and further agrees that the guarantee herein contained shall be enforceable till ninety

(90) days after expiry of its validity.

The Employer shall have the fullest liberty, without affecting in any way the liability of the Bank under this guarantee, from time to time to extend the time for performance of the Contract by the Contractor. The Employer shall have the fullest liberty, without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Contractor/OEM/associate party, and to exercise the same at any time in any manner, and either to enforce

or to forbear to enforce any covenants, contained or implied, in the Contract between the Employer and the Contractor or any other course or remedy or security available to the Employer. The Bank shall not be released of its obligations under these presents by any exercise by the Employer of its liberty with reference to the matters aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the Employer or any other indulgence shown by the Employer or by any other matter or thing whatsoever which under law would, but for this provision, have the effect of relieving the Bank.

The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor/OEM/associate party and notwithstanding any security or other guarantee that the Employer may have in relation to the Contractor/OEM/associate party, liabilities.

The Bank also agrees and acknowledges that the Employer shall have a right to invoke this BANK GUARANTEE in part or in full, as it may deem fit.

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

Dated this day of 20..... at.....

WITNESS :

1.	.....	.....
	(Signature)	(Signature)
		
	(Name)	(Name)
		
	(Official Address)	(Designation with Bank Stamp)
		Authorized Vide Power of Attorney No.....
		Date.....
2.	.....	
	(Signature)	
		

(Name)

.....
(Official Address)

Notes :1. (*) This sum shall be ten percent (10%) of O&M Contract cumulative (equally divided) for bank guarantees given for the performance of O&M Contract by Contractor/OEM/Associates Parties as mentioned at SCC clause5.1.

(@) This date will be up to (90) days beyond the end of Operation & Maintenance (O&M) period as specified in the Contract.

2. The stamp papers of appropriate value shall be purchased in the name of guarantee issuing Bank or the Party on whose behalf for BG is being issued. The Bank Guarantee shall be issued on a stamp paper of value as applicable in the State of India from where Bank Guarantee is issued or the State of Delhi or the State of India from where the BG shall be operated, **whichever is higher.**
3. While getting the Bank Guarantee issued, the Contractor is required to ensure compliance to the points mentioned in Form 16B- Form of Bank Guarantee Verification Check List. Further, the Contractor is required to fill up this Form 16 and enclose the same with the Bank Guarantee.
4. The Bank Guarantee shall be from a Bank as per provisions of Section-V (SCC) of the Bidding Documents.

7. BANK GUARANTEE FORM FOR ADVANCE PAYMENT (SUPPLY EX-WORKS)

**7(i). Bank Guarantee Form for Advance Payment
(Supply Ex-Works)**

(To be stamped in accordance with Stamp Act
if any, of the Country of the Issuing Bank)

Bank Guarantee No.....
Date.....

To,
[Employer's Name & Address]

Dear Sir,

In consideration of[Employer's Name]..... (hereinafter referred to as the 'Employer', which expression shall, unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having awarded to M/s.....[Contractor's Name]..... with its Registered/Head Office at (hereinafter referred to as the 'Contractor' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns), a Contract, by issue of Employer's Notification of Award No. dated and the same having been unequivocally accepted by the Contractor, resulting into a Contract bearing No. dated..... valued at for [Name of Contract](hereinafter called the 'Contract') and the Employer having agreed to make an advance payment to the Contractor for performance of the above Contract amounting (in words and figures) as an Advance against Bank Guarantee to be furnished by the Contractor.

We.....[Name and address of the Bank]..... having its Head Office at (hereinafter referred to as the 'Bank', which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Employer, immediately on demand any or, all monies payable by the Contractor to the extent of[advance amount]..... as aforesaid at any time upto(@)..... without any demur, reservation, contest, recourse or protest and/ or without any reference to the Contractor. Any such demand made by the Employer on the Bank shall be conclusive and binding notwithstanding any difference between the Employer and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the Employer and further agrees that the guarantee herein contained shall be enforceable till ninety (90) days after expiry of its validity.

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

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

Notwithstanding anything contained hereinabove our liability under this guarantee is limited to[advance amount]..... and it shall remain in force upto and including(@)..... and shall be extended from time to time for such period (not exceeding one year), as may be desired by M/s.....[Contractor's Name]..... on whose behalf this guarantee has been given.

Dated this day of 20 at

WITNESS :

1.

.....

(Signature)

.....

(Name)

.....

(Official Address)

.....

(Signature)

.....

(Name)

.....

(Designation with Bank Stamp)

Authorised Vide Power of Attorney No.....

Date.....
2.

.....

(Signature)

.....

(Name)

.....

(Official Address)

- NOTE :
1.

(@) This date shall be ninety (90) days beyond the date of Completion of the Facilities.
2.

The Bank Guarantee shall be from a Bank as per provisions of Section-V (SCC) of the Bidding Documents.
3.

The BG should be on Non-Judicial stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the state(s) where the BG is submitted or is to be acted upon or the rate prevailing in State where the BG is executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Bidder/Bank issuing the guarantee.
4.

While getting the Bank Guarantee issued, Bidders are required to ensure compliance to the points mentioned in Form 16-Form of Bank Guarantee Verification Check List. Further, the Contractor is required to fill up this Form 16 and enclose the same with the Bank Guarantee.
5.

The Bank Guarantee (BG) shall be accompanied with the BG forwarding letter in the format attached as (Form no. 23) in the bidding documents.

6. In case, Bank Guarantee is getting issued from State Bank of India, Bidder to take note of NTPC letter ref. NTPC/FC/CS/BG/01 dated 03.09.2014 and SBI letter ref. CAG-I/AMT-1/2014-15/370 dated 04.09.2014 (attached with Section-V of Bidding Documents).

**7(ii). Bank Guarantee Form for Advance Payment
(Installation/Civil/Site Fabricated Structural works)**

(To be stamped in accordance with Stamp Act
if any, of the Country of the Issuing Bank)

Bank Guarantee No.....

Date.....

To,
[Employer's Name & Address]

Dear Sir,

In consideration of[Employer's Name]..... (hereinafter referred to as the 'Employer', which expression shall, unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having awarded to M/s.....[Contractor's Name]..... with its Registered/Head Office at (hereinafter referred to as the 'Contractor' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns), a Contract, by issue of Employer's Notification of Award No. dated and the same having been unequivocally accepted by the Contractor, resulting into a Contract bearing No. dated..... valued at for[Name of Contract](hereinafter called the 'Contract') and the Employer having agreed to make an advance payment to the Contractor for performance of the above Contract amounting (in words and figures) as an Advance against Bank Guarantee to be furnished by the Contractor.

We.....[Name and address of the Bank]..... having its Head Office at (hereinafter referred to as the 'Bank', which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Employer, immediately on demand any or, all monies payable by the Contractor to the extent of[110% of advance amount]..... as aforesaid along with interest @ **##%** on the advance amount released by the Employer calculated from the date of release of the said advance by the Employer to the Contractor, at any time up to(#)..... without any demur, reservation, contest, recourse or protest and/ or without any reference to the Contractor. Any such demand made by the Employer on the Bank shall be conclusive and binding notwithstanding any difference between the Employer and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the Employer and further agrees that the guarantee herein contained shall be enforceable till ninety (90) days after expiry of its validity.

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

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

Notwithstanding anything contained hereinabove our liability under this guarantee is limited to[110% of advance amount].....along with interest therein as aforesaid and it shall remain in force up to and including(@)..... and shall be extended from time to time for such period (not exceeding one year), as may be desired by M/s.....[Contractor's Name]..... on whose behalf this guarantee has been given.

Dated this day of 20 at

WITNESS :

1.
(Signature)
.....
(Name)
.....
(Official Address)
.....
(Designation with Bank Stamp)
Authorised Vide Power of
Attorney No.....
Date.....

2.
(Signature)
.....
(Name)
.....
(Official Address)

- Notes:**
1. (#) This date shall be ninety (90) days beyond the date of Completion of the Facilities.
(##%) "[SBI 1-year MCLR as on 01st April of applicable year + 150 bps] per annum"
 2. The Bank Guarantee (BG) shall be from a Bank as per provisions of the Bidding Documents.
 3. The BG should be on Non-Judicial stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the state(s) where the BG is submitted or is to be acted upon or the rate prevailing in State where the BG is executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Bidder/Bank issuing the guarantee.
 4. While getting the Bank Guarantee issued, Bidders are required to ensure compliance to the points mentioned in Bank Guarantee Verification Check List in the Bidding

Documents. Bidders are required to fill up this Check List and enclose the same along with the Bank Guarantee.

5. The Bank Guarantee (BG) shall be accompanied with the BG forwarding letter in the format attached as (Form no. 23) in the bidding documents.
6. In case, Bank Guarantee is getting issued from State Bank of India, Bidder to take note of NTPC letter ref. NTPC/FC/CS/BG/01 dated 03.09.2014 and SBI letter ref. CAG-I/AMT-1/2014-15/370 dated 04.09.2014 (attached with Section-V of Bidding Documents).

7(iii). Bank Guarantee Form for Advance Payment

(In case of Contract awarded to Joint Venture)

Names of all JV Partners shall appear in the Bank Guarantee

8. FORM OF COMPLETION CERTIFICATE

8. Form of Completion Certificate

Date : _____

IFB No : _____

[Name of Contract]

To: [Name and address of Contractor]

Dear Sirs,

Pursuant to GCC Clause 24 (Completion of the Facilities) of the General Conditions of the Contract entered into between yourselves and the Employer dated [date], relating to the [brief description of the facilities], we hereby notify you that the following part(s) of the Facilities was (were) complete on the date specified below, and that, in accordance with the terms of the Contract, the Employer hereby takes over the said part(s) of the Facilities, together with the responsibility for care and custody and the risk of loss thereof on the date mentioned below.

1. Description of the Facilities or part thereof: [description]
2. Date of Completion: [date]

However, you are required to complete the outstanding items listed in the attachment hereto as soon as practicable.

This letter does not relieve you of your obligation to complete the execution of the Facilities including Guarantee Test(s) in accordance with the Contract nor of your obligations during the Defects Liability Period.

Very truly yours,

Title
(Project Manager)

9. FORM OF OPERATIONAL ACCEPTANCE CERTIFICATE

9. Form of Operational Acceptance Certificate

Date: _____

IFB No: _____

[Name of Contract]

To: *[Name and address of Contractor]*

Dear Sirs,

Pursuant to GCC Sub-Clause 25.3 (Operational Acceptance) of the General Conditions of the Contract entered into between yourselves and the Employer dated *[date]*, relating to the *[brief description of the facilities]*, we hereby notify you that the Functional Guarantees of the following part(s) of the Facilities were satisfactorily attained on the date specified below.

1. Description of the Facilities or part thereof: *[description]*
2. Date of Operational Acceptance: *[date]*

This letter does not relieve you of your obligation to complete the execution of the Facilities in accordance with the Contract nor of your obligations during the Defects Liability Period.

Very truly yours,

Title
(Project Manager)

10. FORM OF TRUST RECEIPT

10. FORM OF TRUST RECEIPT FOR PLANT,
EQUIPMENT AND MATERIALS RECEIVED

We M/s *(Contractor's Name)*..... having our
Principal place of business at having been awarded a Contract
No..... dated for *(Contract Name)*..... by
(Name of Employer)

We do hereby acknowledge the receipt of the Plant, Equipment and Materials as are fully described
and mentioned under Documents of Title/RR/LR etc. and in the schedule annexed hereto, which shall
form an integral part of this receipt as "Trustee" of *(Name of Employer)*. The
aforesaid materials etc. so received by us shall be exclusively used in the successful performance of
the aforesaid Contract and for no other purpose whatsoever. We undertake not to create any charge,
lien or encumbrance over the aforesaid materials etc, in favour of any other
person/institution(s)/Banks.

For M/s
(Contractor's Name)

Dated :

(AUTHORISED SIGNATORY)

**11. FORM OF INDEMNITY-CUM-UNDERTAKING
AGREEMENT**

**11a. FORM OF INDEMNITY-CUM-UNDERTAKING AGREEMENT
FOR THE EQUIPMENTS
HANDLED OVER BY THE EMPLOYER
FOR PERFORMANCE OF CONTRACT
(Entire Equipment Consignment in one lot)**

(On Non-Judicial Stamp Paper of appropriate value)

INDEMNITY-CUM-UNDERTAKING AGREEMENT

THIS INDEMNITY-CUM-UNDERTAKING AGREEMENT is made this day of 20 between(Contractor's Name) a Company /Partnership Firm / Proprietary Concern incorporated under the laws of having its Registered Office at (hereinafter called as 'Contractor' which expression shall include its successors and permitted assigns) and (Name of Employer), a Company incorporated under the Indian Companies Act having its Registered Office at and its project at (hereinafter called "....." / "Employer" which expression shall include its successors and assigns):

WHEREAS the 'Employer' has awarded to the 'Contractor' a Contract for vide its Notification of Award/Contract No.....dated and its Amendment No. and Amendment No....., (*applicable when amendments have been issued*) (hereinafter called the "Contract") in terms of which@..... is required to hand over various Equipments to the 'Contractor' for execution of the Contract.

And WHEREAS by virtue of Clause No..... of the said Contract, the 'Contractor' and the 'Employer' are required to execute an Indemnity-cum-Undertaking Agreement for the Equipments handed over to the 'Contractor' by@..... for the purpose of performance of the Contract/Erection Portion of the Contract (hereinafter called the "Equipments")

AND THEREFORE, This Indemnity-cum-Undertaking Agreement witnesseth as follows:

1. That in consideration of various Equipments as mentioned in the Contract, a list where of is also annexed to this Indemnity-cum-Undertaking Agreement at Schedule-A, valued at (*Currency and amount in Figures*)..... (*Currency and amount in words*) handed over to the 'Contractor' for the purpose of performance of the Contract, the 'Contractor' hereby undertakes to indemnify and shall keep the 'Employer' indemnified, for the full value of the Equipments. The Contractor hereby acknowledges actual receipt of the Equipments, etc. as per despatch title documents handed over to the 'Contractor' as detailed in the Schedule appended hereto. The 'Contractor' shall hold such Equipments, etc. in trust as a "Trustee" for and on behalf of the 'Employer' @ Fill in abbreviated name of Employer.
2. That the 'Contractor' is obliged and shall remain absolutely responsible for the safe transit/protection and custody of the Equipments at@..... project site against all risks whatsoever till the Equipments are duly used/erected in accordance with the terms of the Contract and the plant/package duly erected and commissioned in accordance with the terms of the Contract is taken over by the 'Employer' The 'Contractor' undertakes to keep the 'Employer' harmless against any loss or damage that may be caused to the Equipments.
3. The 'Contractor' undertakes that the Equipments shall be used exclusively for the performance/execution of the Contract strictly in accordance with its terms and conditions and no part of the Equipments shall be utilised for any other work or

purpose whatsoever. It is clearly understood by the 'Contractor' that non-observance of the obligations under this Indemnity-cum-Undertaking Agreement by the 'Contractor' shall inter-alia constitute a criminal breach of trust on the part of the 'Contractor' for all intents and purpose including legal/penal consequences.

4. That the 'Employer' is and shall remain the exclusive owner of the Equipments free from all encumbrances, charges or liens of any kind, whatsoever. The Equipments shall at all times be open to inspection and checking by the Project Manager or other employees/agents authorised by the 'Employer' in this regard. Further the 'Employer' shall always be free at all times to take possession of the Equipments in whatever form the Equipments may be, if in its opinion, the Equipments are likely to be endangered, misutilised or converted to uses other than those specified in the Contract, by any acts of omission or commission on the part of the 'Contractor' or any other person or on account of any reason whatsoever and the 'Contractor' binds himself and undertakes to comply with the directions of demand of the 'Employer' to return the Equipments without any demur or reservation.
5. That this Indemnity-cum-Undertaking Agreement is irrevocable. If at any time any loss or damage occurs to the Equipments or the same or any part thereof is mis-utilised in any manner whatsoever, then the 'Contractor' hereby agrees that the decision of the Project Manager of the 'Employer' as to assessment of loss or damage to the Equipments shall be final and binding on the 'Contractor'. The 'Contractor' binds itself and undertakes to replace the lost and/or damaged Equipments at its own cost and/or shall pay the amount of loss to the 'Employer' without any demur, reservation or protest. This is without prejudice to any other right or remedy that may be available to the 'Employer' against the 'Contractor' under the Contract and under this Indemnity-cum-Undertaking Agreement.
6. NOW THE CONDITION of this Indemnity-cum-Undertaking Agreement is that if the 'Contractor' shall duly and punctually comply with the terms and conditions of this Indemnity-cum-Undertaking Agreement to the satisfaction of the 'Employer', THEN, the above Indemnity-cum-Undertaking Agreement shall become void after the due performance of the Contract, but otherwise, it shall remain in full force and virtue.

@ Fill in abbreviated name of Employer.

IN WITNESS WHEREOF, the 'Contractor' and the 'Employer' have hereunto set their hand through their authorised representative, the day, month and year first above mentioned.

For and on behalf of

.....
(Contractor's Name)

Signature
Name
Designation of

For and on behalf of

.....
(Employer's name)

Signature
Name
Designation of

Authorised representative *

Authorised representative *

WITNESS :

- 1. Signature
- 2. Name
- 3. Address

WITNESS :

- 1. Signature
- 2. Name
- 3. Address

* Indemnity-cum-Undertaking Agreement are to be executed by the authorised person and (i) in case of contracting Company under common seal of the Company or (ii) having the Power of Attorney issued under common seal of the company with authority to execute Indemnity-cum-Undertaking Agreement , (iii) In case of (ii), the original Power of Attorney if it is specifically for this Contract or a photostat copy of the Power of Attorney if it is General Power of Attorney and such documents should be attached to Indemnity-cum-Undertaking Agreement . In case of Employer, by the authorized representative of the Employer.

SCHEDULE - A

Particulars of the Equipments handed over	Quantity	Particulars of Despatch Title Documents	Value of the Equip- ments	Signature of Attorney in token of receipt
		RR/GR/Bill of Lading No & Date	Carrier	

**11b. FORM OF INDEMNITY-CUM-UNDERTAKING AGREEMENT FOR THE EQUIPMENTS
HANDED OVER IN INSTALMENTS BY THE
EMPLOYER FOR PERFORMANCE OF CONTRACT**

(On Non-Judicial Stamp Paper of appropriate value)

INDEMNITY-CUM-UNDERTAKING AGREEMENT

THIS INDEMNITY-CUM-UNDERTAKING AGREEMENT is made this day of..... 20 between(Contractor's Name) a Company /Partnership Firm / Proprietary Concern incorporated under the laws of having its Registered Office at (hereinafter called as 'Contractor' which expression shall include its successors and permitted assigns) and(Name of Employer), a Company incorporated under the Indian Companies Act having its Registered Office at and its project at (hereinafter called "....." / 'Employer' which expression shall include its successors and assigns):

WHEREAS the 'Employer' has awarded to the 'Contractor' a Contract for vide its Notification of Award/Contract No.....dated and its Amendment No. and Amendment No....., (*applicable when amendments have been issued*) (hereinafter called the "Contract") in terms of which@..... is required to hand over various Equipments to the 'Contractor' for execution of the Contract.

And WHEREAS by virtue of Clause No..... of the said Contract, the 'Contractor' and the 'Employer' are required to execute an Indemnity-cum-Undertaking Agreement for the Equipments handed over to the 'Contractor' by@..... for the purpose of performance of the Contract/Erection Portion of the Contract (hereinafter called the "Equipments")

NOW THEREFORE, This Indemnity-cum-Undertaking Agreement witnesseth as follows:

1. That in consideration of various Equipments as mentioned in the Contract, valued at (*Currency and amount in figures*)..... (*Currency and amount in words*) to be handed over to the 'Contractor' in instalments from time to time for the purpose of performance of the Contract, the 'Contractor' hereby undertakes to indemnify and shall keep the 'Employer' indemnified, for the full value of the Equipments. The Contractor hereby acknowledges actual receipt of the initial instalment of the Equipments, etc. as per details in the Schedule appended hereto. Further, the 'Contractor' agrees to acknowledge actual receipt of the subsequent instalments of the Equipments, etc. as required by@..... in the form of Schedules consecutively numbered which shall be attached to this Indemnity-cum-Undertaking Agreement so as to form integral parts of this Indemnity-cum-Undertaking Agreement. The 'Contractor' shall hold such Equipments, etc. in trust as a "Trustee" for and on behalf of the 'Employer'.

@ Fill in abbreviated name of Employer.

2. That the 'Contractor' is obliged and shall remain absolutely responsible for the safe transit/protection and custody of the Equipments at@..... project site against all risks whatsoever till the Equipments are duly used/erected in accordance with the terms of the Contract and the plant/package duly erected and commissioned in accordance with the terms of the Contract, is taken over by the 'Employer'. The

'Contractor' undertakes to keep the 'Employer' harmless against any loss or damage that may be caused to the Equipments.

3. The 'Contractor' undertakes that the Equipments shall be used exclusively for the performance/execution of the Contract strictly in accordance with its terms and conditions and no part of the Equipments shall be utilised for any other work or purpose whatsoever. It is clearly understood by the 'Contractor' that non-observance of the obligations under this Indemnity-cum-Undertaking Agreement by the 'Contractor' shall inter-alia constitute a criminal breach of trust on the part of the 'Contractor' for all intents and purpose including legal/penal consequences.
4. That the 'Employer' is and shall remain the exclusive owner of the Equipments free from all encumbrances, charges or liens of any kind, whatsoever. The Equipments shall at all times be open to inspection and checking by the Project Manager or other employees/agents authorised by the 'Employer' in this regard. Further, the 'Employer' shall always be free at all times to take possession of the Equipments in whatever form the Equipments may be, if in its opinion, the Equipments are likely to be endangered, misutilised or converted to uses other than those specified in the Contract, by any acts of omission or commission on the part of the 'Contractor' or any other person or on account of any reason whatsoever and the 'Contractor' binds himself and undertakes to comply with the directions of demand of the 'Employer' to return the Equipments without any demur or reservation.
5. That this Indemnity-cum-Undertaking Agreement is irrevocable. If at any time any loss or damage occurs to the Equipments or the same or any part thereof is mis-utilised in any manner whatsoever, then the 'Contractor' hereby agrees that the decision of the Project Manager of the 'Employer' as to assessment of loss or damage to the Equipments shall be final and binding on the 'Contractor'. The 'Contractor' binds itself and undertakes to replace the lost and/or damaged Equipments at its own cost and/or shall pay the amount of loss to the 'Employer' without any demur, reservation or protest. This is without prejudice to any other right or remedy that may be available to the 'Employer' against the 'Contractor' under the Contract and under this Indemnity-cum-Undertaking Agreement.
6. NOW THE CONDITION of this Indemnity-cum-Undertaking Agreement is that if the 'Contractor' shall duly and punctually comply with the terms and conditions of this Indemnity-cum-Undertaking Agreement to the satisfaction of the 'Employer', THEN, the above Indemnity-cum-Undertaking Agreement shall become void after the due performance of the Contract, but otherwise, it shall remain in full force and virtue.

@ Fill in abbreviated name of Employer.

IN WITNESS WHEREOF, the 'Contractor' and the 'Employer' have hereunto set their hand through their authorised representative, the day, month and year first above mentioned.

For and on behalf of

.....
(Contractor's Name)

Signature
Name
Designation of

For and on behalf of

.....
(Employer's name)

Signature
Name
Designation of

Authorised representative *

Authorised representative *

WITNESS :

- 1. Signature
- 2. Name
- 3. Address

WITNESS :

- 1. Signature
- 2. Name
- 3. Address

* Indemnity-cum-Undertaking Agreement are to be executed by the authorised person and (i) in case of contracting Company under common seal of the Company or (ii) having the Power of Attorney issued under common seal of the company with authority to execute Indemnity-cum-Undertaking Agreement , (iii) In case of (ii), the original Power of Attorney if it is specifically for this Contract or a photostat copy of the Power of Attorney if it is General Power of Attorney and such documents should be attached to Indemnity-cum-Undertaking Agreement . In case of Employer, by the authorized representative of the Employer.

SCHEDULE No.1

Particulars of the Equipments handed over	Quantity	Particulars of Despatch Title Documents	Value of the Equip- ments	Signature of Attorney in token of receipt
		RR/GR/Bill of Lading No & Date	Carrier	

(Please number subsequent schedules)

12. FORM OF AUTHORISATION LETTER

12. FORM OF AUTHORISATION LETTER

(NAME OF EMPLOYER)

(PROJECT)

REF. NO. :

DATE :

To,

M/s (Contractor's Name).....

Ref : Contract No..... Dated

for awarded by (Name of Employer)

Dear Sirs,

Kindly refer to Contract No..... Dated for(Contract Name) You are hereby authorised on behalf of(Name of Employer) having its registered office at and its Project at to take physical delivery of materials/equipments covered under despatch Document/ Consignment Note no..... * dated and as detailed in the enclosed Schedule for the sole purpose of successful performance of the aforesaid contract and for no other purposes, whatsoever.

(Signature of Project Manager)

(Designation :

Date

ENCL : as above

* Mention LR/RR No.

**SCHEDULE OF MATERIAL/EQUIPMENT COVERED UNDER
DESPATCH TITLE DOCUMENT (RR NO./ LR NO.)**

Sl. No.	Contract Name	NOA No./ Contract Agreement No.	Description of Materials/ Equipments	Spec. No.	Qty.	Value	Remarks

(SIGNATURE OF THE PROJECT MANAGER)

(Designation).....

Date).....

13. DEED OF JOINT UNDERTAKING

FORM OF DEED OF JOINT UNDERTAKING
(ON NON-JUDICIAL STAMP PAPER OF APPROPRIATE VALUE)

(NOT APPLICABLE)

**14. FORM OF BANK GUARANTEE/INSURANCE SURETY
BOND
BY ALL EXECUTANTS OF DEED OF JOINT
UNDERTAKING OTHER THEN CONTRACTOR**

**14.a PROFORMA FOR BANK GUARANTEE
TO BE FURNISHED BY THE EXECUTANT OF DEED OF
JOINT UNDERTAKING OTHER THAN CONTRACTOR**

(To be suitably incorporated by concerned package coordinator)

(To be stamped in accordance with Stamp Act of India)

Bank Guarantee No.....

Date

To,

[Employer's Name & Address]

Dear Sir,

In consideration of*[Employer's Name]*..... (hereinafter referred to as the 'Employer', which expression shall unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having awarded to with its Registered Head Office at..... (herein-after referred to as.....or "Contractor") a Contract for Package for its (Name of Project) vide Contract No. dated and the same having been unequivocally accepted by the Contractor resulting in a "Contract", which award is on the strength of Deed of Joint Undertaking dated (hereinafter referred to as "Undertaking") given by M/s..... (Contractor) and by M/s..... (Associate / Collaborator)..... having its registered office at (hereinafter called Associate / Collaborator), and the Contractor having further executed with M/s..... (Associate / Collaborator) a Sub-Contract dated and the same having been unequivocally accepted by the Associate / Collaborator resulting in a Sub-Contract Agreement valued at for (hereinafter called "Sub-Contract Agreement") and Associate / Collaborator having agreed to provide a Bank Guarantee amounting to to the Employer on the terms and conditions specified in the "Undertaking".

We..... Bank, having its Head Office at..... (hereinafter referred to as the "Bank", which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay to the Employer on demand any and all monies to the extent of(Specify currency and amount in words and figures) only as aforesaid at any time upto.....@.....without any demur, reservation, context, recourse or protest and/or without any references to Associate / Collaborator or "Contractor".

Any such demand made by the Employer on the Bank shall be conclusive and binding, not withstanding any difference between the Employer and Contractor and/or between the Employer and Associate / Collaborator or any dispute pending before any Court, Tribunal, Arbitrator or any other Authority. The Bank undertakes not to revoke this Guarantee during its currency without previous consent of the Employer and further agrees that the Guarantee herein contained shall be enforceable till ninety (90) days after expiry of its validity.

The Employer shall have the fullest liberty, without affecting in any way the liability of the Bank under this Guarantee, from time to time to extend the time for performance of the Contract or the Sub-Contract Agreement by the Associate / Collaborator.

The Employer shall have the fullest liberty, without affecting this Guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the

Associate / Collaborator and to exercise the same at any time, in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied, in the Contract or Undertaking or any other course or remedy or security available to the Employer. The Bank shall not be released of its obligations under these presents by any exercise of its liberty with reference to the matters aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the Employer or any other indulgence shown by the Employer or by any other matter or thing whatsoever which under law would, but for this provision have the effect of relieving the Bank from its obligations.

The Bank also agrees that the Employer at is option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against Contractor or Associate / Collaborator and notwithstanding any security or other guarantee that the Employer may have in relation to Contractor's or Associate / Collaborator liabilities.

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

Date this.....day of.....20.....at.....

WITNESS

1.

.....
(Signature)

.....
(Name)

.....
(Official Address)

.....
(Signature)

.....
(Name)

.....
(Designation with Bank Stamp)

Authorised Vide Power of
Attorney No.....

Date.....

2.

.....
(Signature)

.....
(Name)

.....
(Official Address)

Notes :

- 1.@ The date shall be as specified in the corresponding format for the Deed of Joint Undertaking enclosed in the Section 'Forms and Procedures'.
2. The Bank Guarantee shall be from a Bank as per provisions of Section-V (SCC) of the bidding documents.
3. The BG should be on Non-Judicial stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the state(s) where the BG is submitted or is to be acted upon or the rate prevailing in State

where the BG is executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Bidder/Bank issuing the guarantee.

4. While getting the Bank Guarantee issued, Bidders are required to ensure compliance to the points mentioned in Form 16-Form of Bank Guarantee Verification Check List enclosed in Section-VII of bidding document. Further, Bidders are required to fill up this Form 16 and enclose the same with the Bank Guarantee.
5. The Bank Guarantee (BG) shall be accompanied with the BG forwarding letter in the format attached as (Form no. 23) in the bidding documents.
6. In case, Bank Guarantee is getting issued from State Bank of India, Bidder to take note of NTPC letter ref. NTPC/FC/CS/BG/01 dated 03.09.2014 and SBI letter ref. CAG-I/AMT-1/2014-15/370 dated 04.09.2014 (attached with Section-V of Bidding Documents).

**14.b PROFORMA FOR INSURANCE SURETY BOND
TO BE FURNISHED BY THE EXECUTANT OF DEED OF
JOINT UNDERTAKING OTHER THAN CONTRACTOR**

(To be suitably incorporated by concerned package coordinator)

(To be stamped in accordance with Stamp Act of India)

Insurance Surety Bond No.

Date.....

To,
[Employer's Name & Address]

Dear Sirs,

In consideration of[Employer's Name]..... (hereinafter referred to as the 'Employer', which expression shall unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having awarded to with its Registered Head Office at..... (herein-after referred to as.....or "Contractor") a Contract for Package for its (Name of Project) vide Contract No. dated and the same having been unequivocally accepted by the Contractor resulting in a "Contract", which award is on the strength of Deed of Joint Undertaking dated (hereinafter referred to as "Undertaking") given by M/s..... (Contractor) and by M/s..... (Associate / Collaborator)..... having its registered office at (hereinafter called Associate / Collaborator), and the Contractor having further executed with M/s..... (Associate / Collaborator) a Sub-Contract dated and the same having been unequivocally accepted by the Associate / Collaborator resulting in a Sub-Contract Agreement valued at for..... (hereinafter called "Sub-Contract Agreement") and Associate / Collaborator having agreed to provide an Insurance Surety Bond amounting to to the Employer on the terms and conditions specified in the "Undertaking".

We[Name & Address of the Insurer].....having its Head Office at.....(hereinafter referred to as the 'Insurer', which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Employer, on demand any and all amount payable by the Contractor to the extent of as aforesaid at any time upto(@).....[days/month/y

ear] without any condition, demur, reservation, contest, recourse or protest and/or without any references to Associate / Collaborator or "Contractor". Any such demand made by the Employer on the Insurer shall be conclusive and binding notwithstanding any difference between the Employer and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Insurer undertakes not to revoke this Insurance Surety Bond during its currency and or any period extended under the contract, without prior consent of the Employer and further agrees that the guarantee herein contained shall be enforceable till ninety (90) days after expiry of its validity.

The Employer shall have the fullest liberty, without affecting in any way the liability of the Insurer under this Insurance Surety Bond, from time to time to extend the time for performance of the Contract or the Sub-Contract Agreement by the Associate / Collaborator for the purpose of which, the Insurer shall be liable to extend the validity of the present Insurance Surety Bond without any demur, condition, protest and the Insurer shall at no point in time have an option of revoking the same, The Employer shall have the fullest liberty, without affecting this Insurance Surety Bond, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Associate / Collaborator and to exercise the same at any time, in any manner, and either to

enforce or to forbear to enforce any covenants, contained or implied, in the Contract or Undertaking or any other course or remedy or security available to the Employer. The Insurer shall not be released of its obligations under these presents by any exercise of its liberty with reference to the matters aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the Employer or any other indulgence shown by the Employer or by any other matter or thing whatsoever which under law would, but for this provision have the effect of relieving the Insurer from its obligations.

The Insurer also agrees that the Employer at its option shall be entitled to enforce this Insurance Surety Bond against the Insurer as Surety, in the first instance without proceeding against Contractor or Associate /Collaborator and notwithstanding any security or other guarantee that the Employer may have in relation to Contractor's or Associate / Collaborator liabilities.

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

Date this.....day of.....20.....at.....

WITNESS :

1.
(Signature)
.....
(Name)
.....
(Official Address)

.....
(Signature)
.....
(Name)
.....
(Designation with Insurer Stamp)

Authorised Vide Power of Attorney
No.....
Date.....

2.
(Signature)
.....
(Name)
.....
(Official Address)

- Notes :** 1. (@)The date shall be as specified in the corresponding format for the Deed of Joint Undertaking enclosed in the Section 'Forms and Procedures'.
2. The Insurance Surety Bond shall be from an Insurer as per guidelines issued by Insurance Regulatory and Development Authority of India (IRDAI).
3. The Employer shall be the Creditor, the Associate / Collaborator shall be the Principal debtor and the Insurance company/Insurer shall be the Surety in respect of the Insurance Surety Bond to be issued by the Insurer.
4. The Insurance Surety Bond should be on Non-Judicial stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the state(s) where the Insurance Surety Bond is submitted or is to be acted upon or the rate prevailing in State where the Insurance Surety Bond is executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Bidder/Insurer issuing the Insurance Surety Bond.

5. While getting the Insurance Surety Bond issued, the Contractor is required to ensure compliance to the points mentioned in Form of Bank Guarantee/ Insurance Surety Bond Verification Check List. Further, the Contractor is required to fill up this Form and enclose the same with the Insurance Surety Bond .

15. FORM OF JOINT VENTURE AGREEMENT

FORM NO. 15.

(On Non-Judicial Stamp Paper of Appropriate Value)

(NOT APPLICABLE)

**16. FORM OF BANK GUARANTEE/INSURANCE
SURETY BOND
VERIFICATION CHECK LIST**

BANK GUARANTEE/ INSURANCE SURETY BOND VERIFICATION CHECKLIST

1. Bank Guarantee/ Insurance Surety Bond No.
2. Issuing Bank/Insurer
3. Amount of BG/ Insurance Surety Bond
4. Nature of BG/ Insurance Surety Bond & No. of Pages
5. Validity of BG/ Insurance Surety Bond
6. Package Description
7. Party & Contracts Ref. Name, Address, Tel, Fax, e-mail,
Contract No. Package Name
8. Bank Reference Name, Address, Tel. Fax, E-mail

Sl. No.	Details of checks	YES / NO
1	Is the BG/ Insurance Surety Bond on non-judicial stamp paper/e-stamp paper of appropriate value, as per Stamp Act?	
2	Whether date, purpose of purchase and name of the purchaser are indicated on the stamp paper? (The date of purchase of stamp paper should be of any date on or before the date of execution of BG/Insurance Surety Bond and the stamp paper should be purchased either in the name of the executing Bank/Insurer or the Party on whose behalf the BG/Insurance Surety Bond has been issued. The stamp paper (other than e-stamp paper) should be duly Signed by the Stamp Vendor)	
3	In case of BG/INSURANCE SURETY BONDS from Bank/Insurance Company abroad, has the G/INSURANCE SURETY BOND been executed on Letter Head of the Bank/Insurance Company?	
4	Has the executing Officer of BG/INSURANCE SURETY BOND indicated his name, designation and Power of Attorney No./ Signing Power no. etc., on the BG/INSURANCE SURETY BOND?	
5	Is each page of BG/ INSURANCE SURETY BOND duly signed /initialed by executant and whether stamp of Bank is affixed thereon? Whether the last page is signed with full particulars under seal of Bank as required in the prescribed proforma?	

6	Does the Bank Guarantees/ INSURANCE SURETY BOND compare verbatim with the Proforma prescribed in the Bid Documents?	
7	Are the factual details such as Bidding Document No./Specification No., Amount of BG/ INSURANCE SURETY BOND and Validity of BG/ INSURANCE SURETY BOND correctly mentioned in the BG?	
8	Whether overwriting/cutting if any on the BG/ INSURANCE SURETY BOND have been properly authenticated under signature & seal of executant?	
9	Whether the BG/ INSURANCE SURETY BOND has been issued by a Bank/Insurance Company in line with the provisions of Bidding documents?	
10	In case BG/ INSURANCE SURETY BOND has been issued by a Bank other than those specified in Bidding Document, is the BG/ INSURANCE SURETY BOND confirmed by a Bank in India acceptable as per Bidding documents?	

Date : Signature

Place : Printed Name

(Designation)

(Common Seal)

Note: The Bidder is required to fill up this form and enclose along with the Bank Guarantee/Insurance Surety Bond.

Certified that the Bank Guarantee submitted has been verified and accepted in line with the prescribed procedure.

NOTE:

(i) The Executive from Concerned Execution Department shall verify the BG/ Scanned copy of BG in the system in line with the prescribed procedure and the same shall be digitally approved in the system. The BG shall not be approved at a level lower than the DGM.

(ii) Dealing Executive of Unified Treasury at the level of E5/E6 shall certify that BG has been verified from the issuing bank.

Bidding Document No NVVN/ C&M /RE-310 /2024-25	DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

17. FORM OF VALIDITY EXTENSION OF BANK GUARANTEE/INSURANCE SURETY BOND

FORM OF EXTENSION OF BANK GUARANTEE/ INSURANCE SURETY BOND

Ref. No.:
@.....

Date:

Dear Sirs,

Subject : Extension of Bank Guarantee/Insurance Surety Bond No. dated for.....[indicate value of Bank Guarantee/Insurance Surety Bond].....favouring yourselves expiring on on account of M/s..... (Name of Bidder).....in respect of Contract for (Insert Package name) (Insert Project Name) project, Contract No. dated..... (hereinafter called original Bank Guarantee/Insurance Surety Bond)

At the request of M/s we Bank branch office at..... and having its Head office at do hereby extend our liability under the above mentioned guarantee No. dated..... for a further period of year/months from to expire on

Except as provided above, all other terms and conditions of original Bank Guarantee/Insurance Surety Bond No..... dated..... shall remain unaltered and binding.

Please treat this as an integral part of the original guarantee to which it would be deemed to have been attached.

.....
(Signature)

.....
(Name)

.....
(Designation with Bank Stamp)

Authorised vide

Power of Attorney No.....

Date.....

Dated

SEAL OF BANK/INSURANCE COMPANY

Note:

1. @ The extension of the Bank Guarantee/Insurance Surety Bond should be forwarded to the Unit/ Project/Corporate Centre, from where the extension has been sought.

2. The extension of BG/Insurance Surety Bond should be on Non-Judicial stamp paper/estamp paper of appropriate value as per Stamp Act prevailing in the State(s) where the BG/Insurance Surety Bond is submitted or is to be acted upon or the rate prevailing in the State where the BG is executed, whichever is higher. The Stamp Paper/e-Stamp paper shall be purchased in the name of Bidder/Bank issuing the guarantee.

**18. FORM OF INDEMNITY-CUM-UNDERTAKING
AGREEMENT [FOR REMOVAL / DISPOSAL OF
SCRAP / SURPLUS MATERIAL]**

**18. FORM OF INDEMNITY-CUM-UNDERTAKING AGREEMENT WITH REGARD TO
REMOVAL/DISPOSAL OF SCRAP/SURPLUS MATERIAL**

(TO BE EXECUTED ON STAMP PAPER OF APPROPRIATE VALUE)

INDEMNITY-CUM-UNDERTAKING AGREEMENT

THIS INDEMNITY-CUM-UNDERTAKING AGREEMENT executed this day of..... 20 between(Name of Company) a Company /Partnership Firm / Proprietary Concern incorporated under the laws of having its Registered Office(s) at (Office Address) hereinafter called the 'Contractor' (which expression shall, unless excluded by or repugnant to the context, be deemed to mean and include its successors, administrators, executors and permitted assigns)

AND

M/s. having its registered office at (hereinafter referred to as 'Employer').

1. 'Employer' has awarded the 'Contractor', contract for execution of work ("Scope of Work") as mentioned in the contract agreement no. dated, entered into between 'Employer' and 'Contractor', relating to (Name & Address of Project/Station) (hereinafter called 'the Project').
2. The 'Contractor' for the purpose of execution of its Scope of Work had from time to time procured and stored (Details of Material) at the Project Site.
3. After completion of the Scope of Work by 'Contractor', it has been identified that scrap (Details of Scrap Material & its quantity) and/or surplus (Details of Surplus Material & its Quantity) belonging to 'Contractor' is lying at the said Project Site.
4. Now, the scrap (Details of Scrap Material & its Quantity) and/or surplus (Details of Surplus Material & its Quantity) belonging to the 'Contractor', requires to be removed by 'Contractor' from the Project Site.

NOW THEREFORE THIS INDEMNITY-CUM-UNDERTAKING AGREEMENT WITNESSETH AS UNDER:

1. That 'Contractor' by way of this Indemnity-cum-Undertaking Agreement requests 'Employer' to issue necessary exit gate pass(es) in favour of 'Contractor' for removal of scrap..... (Details of Scrap Material & its Quantity) and/or surplus (Details of Surplus Material & its Quantity) belonging to 'Contractor', from the project.
2. That as per Employer's procedure, 'Contractor' shall ensure loading of trucks for clearing of its scrap (Details of Scrap Material & its Quantity) and/or surplus (Details of Surplus Material & its Quantity) by itself, as aforesaid, under the supervision of CISF personnel.
3. That 'Contractor' in consideration of the premises above, for itself and its respective, executors, administrators and assigns, jointly and severally agree and undertake from time to time and at all times hereafter to indemnify 'Employer' and keep 'Employer' indemnified from and against all claims, demands, actions, liabilities and expenses which may be made or

taken against or incurred by 'Employer' by reason of the issue of necessary gate pass(es) by 'Employer' and permitting 'Contractor' to remove scrap (Details of Scrap Material & its Quantity) and/or surplus (Details of Surplus Material & its Quantity) belonging to 'Contractor', from the project.

4. That 'Contractor' undertakes to indemnify and keep 'Employer' harmless from any act of omission or negligence on the part of the 'Contractor' in following the statutory requirements with regard to removal/disposal of scrap and surplus belonging to 'Contractor', from the Project Site aforesaid, by the 'Contractor'. Further, in case the laws require 'Employer' to take prior permission of the relevant Authorities before handing over the scrap and/or surplus to the 'Contractor', the same shall be obtained by the 'Contractor' on behalf of 'Employer'.

IN WITNESS WHEREOF, the 'Contractor' and the 'Employer', through their authorized representative, have executed these presents on the Day, Month and Year first mentioned above at (Name of the Place)

For and on behalf of
.....
(Contractor's Name)

Signature
Name
Designation of
Authorised representative *

For and on behalf of
.....
(Employer's name)

Signature
Name
Designation of
Authorised representative *

- WITNESS :**
1. Signature
2. Name
3. Address

- WITNESS :**
1. Signature
2. Name
3. Address

* Indemnity-cum-Undertaking Agreement are to be executed by the authorised person and (i) in case of contracting Company under common seal of the Company or (ii) having the Power of Attorney issued under common seal of the company with authority to execute Indemnity-cum-Undertaking Agreement , (iii) In case of (ii), the original Power of Attorney if it is specifically for this Contract or a photostat copy of the Power of Attorney if it is General Power of Attorney and such documents should be attached to Indemnity-cum-Undertaking Agreement. In case of Employer, by the authorized representative of the Employer.

19. FORM OF CONTRACT CLOSING CERTIFICATES

Form-19.1

Bidding Document No NVVN/ C&M /RE-310 /2024-25	DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

PROFORMA OF CERTIFICATE OF FINAL AMENDMENT TO THE CONTRACT

(To BE ISSUED BY CORPORATE CONTRACT SERVICES)

CERTIFICATE NO. CCP - 01

NAME OF PACKAGE:

**LETTER OF AWARD/ NOA/
CONTRACT NO. :**

NAME OF CONTRACTOR

DATED:

This is to certify that amendments have been issued to the aforesaid contract as per the details mentioned below:

	Amendment No.	Date
1.		
2.		
3.		
4.		
5.		

This is to certify further that Amendment No.----- dated is the last amendment issued.

Signature

Date |

Place.....

Name... ..

Designation

PROFORMA FOR DRAWING RECEIPT CERTIFICATE**(TO BE ISSUED BY ENGINEERING)****CERTIFICATE NO.CCP- 02****NAME OF PACKAGE:****LETTER OF AWARD/
NOA/ CONTRACT NO. :****NAME OF CONTRACTOR****DATED:****Project:**

This is to certify that we have received all the drawings which were to be submitted by the Contractor in requisite number along with the reproducibles as detailed in Annexure enclosed herewith, as per provisions stipulated in the above mentioned LOA/Contract.

Signature

Date

Place.....

Name... ..

Designation

PROFORMA FOR QA DOCUMENTS RECEIPT CERTIFICATE

(TO BE ISSUED BY CQA&I)

CERTIFICATE NO. CCP-03

NAME OF PACKAGE:

**LETTER OF AWARD/
NOA/ CONTRACT NO.:**

NAME OF CONTRACTOR:

DATED:

Project:

This is to certify that the QA documents as per the list enclosed, in respect of the above mentioned LOA/ Contract has been received in line with the provisions of the Contract.

Signature

Date

Place.....

Name.....

Designation

PROFORMA FOR O&M MANUAL RECEIPT CERTIFICATE

(TO BE ISSUED BY ENGINEERING)

CERTIFICATE NO. CCP - 04

NAME OF PACKAGE:

**LETTER OF AWARD/
NOA/ CONTRACT NO. :**

NAME OF CONTRACTOR:

DATED:

Project :

This is to certify that we have received from the contractor all the necessary O&M Manuals in requisite number including the list of spare parts along with the names of vendors in respect of the above LOA/contract. The consolidated list of such manuals received is enclosed along with the distribution as marked on the list.

Signature

Date
Place.....

Name... ..
Designation.....

PROFORM FOR SCOPE COMPLETION CERTIFICATE**(TO BE ISSUED BY SITE ERECTION)****CERTIFICATE NO. CCP- 05****NAME OF PACKAGE:****LETTER OF AWARD/
NOA/CONTRACT NO.:****NAME OF CONTRACTOR:****DATED:****Project :**

1. This is to certify that the scope of the above Contract has been completed in line with the contract read in conjunction with the following documents:
 1. Final Amendment No. _____ (As per CCP -01)
 2. Approved drawings including site run piping schemes, if any.
 3. Approved Bill of Materials
 4. Material Dispatch Clearance Certificate (s)
 5. Measurement Book
 6. As Built Drawings
 7. Any other documents (specify)
2. It is further certified that the following have been supplied, as per the details given in the Contract Documents and the same have been taken over by NTPC.
 1. ~~Mandatory spares~~
 2. Recommended Spares
 3. Special Tools & Tackles

Signature

Date

Place.....

Name... ..

Designation

Bidding Document No NVVN/ C&M /RE-310 /2024-25	DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

PROFORMA FOR LIQUIDATED DAMAGES FOR DELAY CERTIFICATE

**(TO BE ISSUED BY SITE ERECTION/ REGIONAL OFFICE/ CORPORATE
CONTRACT SERVICES)**

CERTIFICATE NO. CCP- 06

NAME OF PACKAGE:

**LETTER OF AWARD/
NOA/ CONTRACT NO. :**

NAME OF CONTRACTOR:

DATED:

Project:

This is to certify that the issue regarding liquidated damages for delay as per the provisions of clause_____of the above contract/ LOA has been resolved with the approval of the Competent authority vide reference _____ (copy enclosed).

Signature

Date
Place.....

Name.....
Designation

Note: In respect of cases where LD for delay is settled by Corporate Contract Services (CS), this certificate will be issued by CS and where LD for delay is settled by the Site / Region, the same will be issued by the concerned Site/Regional Offices.

PROFORMA OF SHORTFALL IN EQUIPMENT PERFORMANCE CERTIFICATE

**(TO BE ISSUED BY OS/SITE, AS APPLICABLE, FOR SITE PERFORMANCE TEST
AND BY CQA&I FOR SHOP TEST)**

CERTIFICATE NO. CCP - 07

NAME OF PACKAGE: **LETTER OF AWARD/
NOA/ CONTRACT NO. :**

NAME OF CONTRACTOR: **DATED:**

PROJECT:

This is to certify that the following shortfall in equipment performance as compared to the guaranteed parameters have been assessed and agreed to with the contractor in respect of the above mentioned LOA/ Contract.

S.No	Guaranteed Parameter	Guaranteed value	Assessed Value	Shortfall, if any.	liquidated damages Annual
1	2	3	4	5	6

Further, it is also confirmed that liquidated damages for shortfall in equipment performance in respect of above Items, have been recovered fully from the contractor and no other dues are outstanding for shortfall in equipment performance.

Signature

Date
Place.....

Name... ..
Designation

To be counter signed by Site Accounts.

Signature

Date.....
Place.....

Name... ..
Designation

PROFORMA OF "MATERIAL RECONCILIATION" CERTIFICATE

(TO BE ISSUED BY SITE ERECTION AND COUNTERSIGNED BY SITE MATERIALS MANAGEMENT)

CERTIFICATE NO. CCP- 08

NAME OF PACKAGE:

**LETTER OF AWARD/
NOA/ CONTRACT NO.:**

NAME OF CONTRACTOR:

DATED:

PROJECT:

This is to certify that the materials issued to the contractor in respect of the above mentioned LOA/Contract have been reconciled with the stipulations under the contract documents and no other recovery of material is pending with the contractor.

Signature

Date
Place.....

Name... ..
Designation

To be counter signed by materials management

Signature

Date
Place.....

Name... ..
Designation... ..

PROPORMA OF "PAYMENT RECONCILIATION" CERTIFICATE
(TO BE ISSUED BY SITE ACCOUNTS IN CASE OF INDIAN CONTRACTORS)

CERTIFICATE NO. CCP - 09

NAME OF PACKAGE:

LETTER OF AWARD/
NOA/ CONTRACT NO. :

NAME OF CONTRACTOR:

DATED:

PROJECT:

This is to certify that all the payments released to the contractor in respect of the above mentioned LOA/Contract have been reconciled with the provisions of the contract documents and statement of Accounts and or other Certificates of Contractor. It is observed that there are no recoveries pending under any of the items listed overleaf.

Signature

Date
Place.....

Name.....
Designation.....

Enclosure to CCP-09

The list of recoveries and claims as advised by site Erection Department should include all recoveries and claims on any account whatsoever, including the following:

1. Liquidated damages for delay.
2. Liquidated damages for shortfall in Performance as observed during shop-testing (by inspection deptt.)
3. Liquidated damages for shortfall in performance as observed during performance guarantee tests conducted at site and other site tests.
4. All recoveries /claims on account of variations/deviations to scope of contract permitted or otherwise taken place during execution of the contract as listed in certificate No. CCP.05 for contract closing (Certificate by site Erection for contract closing).
5. Recoveries on account of reconciliation of payments made under the contract.
6. All the claims against the contractor regarding clearance of materials from site and vacation of the premises allotted for site office, stores.
7. All claims in respect of Training/Transportation/Accommodation/Services provided by site in respect of above LOA/Contract.
8. Recoveries on account of settlement of insurance claims
9. Recoveries on account of reconciliation of materials issued to the Contractor.
10. All recoveries on account of demurrage, transportation, insurance premiums etc. and other recoveries as informed by T&CC group on account of port clearance, transportation etc.
11. All recoveries on account of wastage and scrap.
12. All recoveries/claims (if any) on account of maintenance of equipments.
13. All recoveries/claims (if any) on account of price variation.
14. All recoveries/claims (if any) on account of statutory dues paid on behalf of the Contractor by NTPC.
15. Royalty charges.
16. All recoveries/ claims (if any) on account of hiring out of NTPC's plant and equipment.
17. All recoveries/claims (if any) on account of water and electricity charges (if applicable).
18. Any other recoveries/claims against specific instructions.

**PROFORMA OF CERTIFICATE REGARDING LABOUR PAYMENTS AND
STATUTORY REQUIREMENTS TO BE FURNISHED BY CONTRACTOR.**

(TO BE ISSUED BY THE CONTRACTOR)

CERTIFICATE NO. CCP - 10

NAME OF PACKAGE:

**LETTER OF AWARD/
NOA/ CONTRACT NO. :**

NAME OF CONTRACTOR:

DATED:

PROJECT:

This is to certify that we have made all labour payments including PF Liabilities in respect of the above mentioned LOA/ Contract and no other payments in this regard is pending from us.

Further we confirm that all Statutory requirements have been complied with by us and in case any default is reported against us, we shall be solely responsible for the same.

Signature

Date
Place.....

Name... ..
Designation

**PROFORMA OF "NO DEMAND CERTIFICATE" BY CONTRACTOR (TO BE
ISSUED BY THE CONTRACTOR)**

CERTIFICATE NO. CCP-11

NAME OF PACKAGE:

**LETTER OF AWARD/ NOA/
CONTRACT NO. :**

NAME OF CONTRACTOR:

DATED:

PROJECT:

We, M/s..... (Contractor) do hereby acknowledge and confirm that we have received the full and final payment due and payable to us from NVVN Ltd. in respect of our aforesaid LOA/Contract No..... dated.....including amendments if any, issued by NVVN Ltd., to our entire satisfaction and we further confirm that we have no claim whatsoever pending with NVVN Ltd. under the said Contract.

Notwithstanding any protest recorded by us in any correspondence document, measurement books, and/or final bills etc., we waive all our rights to lodge any claim or protest in future under this contract.

We are issuing this "NO DEMAND CERTIFICATE" in favour of NVVN Ltd. with full knowledge and with our free consent without any undue influence, misrepresentation, coercion etc.

Signature

Date

Name.....

Place.....

Designation

(Company Common Seal)

(This certificate shall be accompanied by the Power of attorney of the signatory)

Bidding Document No NVVN/ C&M /RE-310 /2024-25	DEVELOPMENT OF GRID CONNECTED ROOFTOP SOLAR PROJECTS AT BUILDINGS OF DEPARTMENTS UNDER MHA & MOP

**PROFORMA OF CERTIFICATE FOR COMPLETION OF WARRANTY PERIOD (TO
BE ISSUED BY SITE ERECTION)**

CERTIFICATE NO. CCP-12

NAME OF PACKAGE:

**LETTER OF AWARD/
NOA/ CONTRACT NO.:**

NAME OF CONTRACTOR:

DATED:

PROJECT:

This is to certify that the warranty period for the above mentioned LOA/Contract has been completed in line with the provisions of the contract.

Signature

Date

Place.....

Name... ..

Designation

PROFORMA OF "CERTIFICATE FOR RETURN OF BGs/ INDEMNITY BONDS ETC."

(TO BE ISSUED BY SITE ACCOUNTS)

CERTIFICATE NO. CCP-13

NAME OF PACKAGE:

**LETTER OF AWARD/NOA/
CONTRACT NO.:**

NAME OF CONTRACTOR:

DATED:

PROJECT:

This is to certify that all the *Bank Guarantee/ Indemnity bonds/ Insurance policies/ Collaborator's or Associate's Guarantee received for the above mentioned LOA/ Contract have been returned in original to the contractor.

Signature

Date
Place.....

Name... ..
Designation

****Delete whichever is not applicable.***

**DECLARATION OF ABSENCE OF CONFLICT OF INTEREST WITH CONCILIATION
COMMITTEES OF INDEPENDENT EXPERTS (CCIE)**

To :

*[Employer's Name and
Address]*

Dear Sirs,

1.0 We, M/s (Name of the Contractor) have been awarded the contract for (Name of the package) vide Notification (s) of Award No..... dated.....

2.0 As per the provisions of the contract, we hereby propose the following CCIEs, in priority order, as per the list enclosed in the Special Conditions of Contract, as amended from time to time by Ministry of Power, for finalization of CCIE by CEA:

- 1.....
- 2.....
- 3.....

3.0 We confirm that we do not have any conflict of interest with the aforesaid experts and they have not been engaged for providing any services to us in the last five years.

4.0 We confirm that in case of any form of conflict of interest (possible or actual) which may inadvertently emerge during the conciliation proceedings by CCIE, the same will be duly reported to you.

5.0 We understand that NVVN may withdraw from the conciliation proceedings, if any conflict of interest with us is found out which have been intentionally concealed, and the matter may be referred to Ministry of Power. Further, action may be taken against us in respect of Fraud Prevention Policy of NTPC.

Date : Signature.....

Place : Printed Name.....

(Designation)

(Common Seal)

~~DECLARATION OF ABSENCE OF CONFLICT OF INTEREST WITH INDEPENDENT
ENGINEER (IE)~~
(NOT APPLICABLE)

Form 22. (ELECTRONIC FUND TRANSFER FORM)

Page 1 of 3

Bidder's Name and Address:

To

[illegible]

Dear Sirs,

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

(TO BE FILLED IN CAPITAL LETTERS)

1. NAME OF THE BENEFICIARY

[illegible]

2. ADDRESS

ADDRESS																			
PIN CODE																			

3. TELEPHONE NO. (WITH STD CODE)

[illegible]

4. BANK PARTICULARS

(A) BANK NAME

[illegible]

(B) BANK TELEPHONE NO. (WITH STD CODE)

(C) BRANCH ADDRESS

PIN CODE																

(D) BANK FAX NO (WITH STD CODE)

(E) BRANCH CODE

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

(G) IFSC CODE

(H) BANK ACCOUNT NUMBER

(I) BANK ACCOUNT TYPE (TICK ONE)

SAVING	CURRENT	LOAN	CASH CREDIT	OTHERS

IF OTHERS, SPECIFY

5. PERMANENT ACCOUNT NUMBER (PAN) (ENCLOSE COPY)

6. E-MAIL ADDRESS FOR INTIMATION REGARDING RELEASE OF PAYMENTS

I/We hereby declare that the particulars given above are correct and complete. If the transaction is delayed or credit is not affected at all for reasons of incomplete or incorrect information, I/We would not hold the Employer responsible. We have enclosed document as mentioned at Sl. No. 4(F) and 5 above.

SIGNATURE

DATE

(AUTHORISED SIGNATORY)

Name:

OFFICIAL STAMP

BANK CERTIFICATION:

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

SIGNATURE

DATE

(AUTHORISED SIGNATORY)

Authorization No. :

Name:

OFFICIAL STAMP

BG forwarding letter from Bank to NVVN in Bank's letterhead

To :

Employer Address

Sub: Submission of Bank Guarantee No.

Bank Guarantee No.	
Date of Issue	dd.mm.yyyy
Guarantee Amount	<u>Currency Amount</u>
Date of Expiry of BG	dd.mm.yyyy
Last date of lodgement of claim	dd.mm.yyyy
<i>Name, Address and IFSC code of BG issuing Bank</i>	<i>Name:</i> <i>Address:</i> <i>IFSC code:</i>
Contract/Letter of Award/PO No.	
Name & Address of the Applicant / Contractor	<i>Name:</i> <i>Address:</i>

We confirm that SFMS has been sent to your beneficiary bank as below:

ICICI Bank Limited, Connaught Place Branch,
9A, Phelps Building, Inner Circle, New Delhi - 110001
IFSC Code: ICIC0000007

We also confirm the genuineness of the signatures appearing on the said guarantee/extension and further also confirm that the same has been signed by the competent authority of the bank.

Date : Signature.....

Place : Printed Name

(Designation)

(Common Seal)

TO WHOMSOEVER IT MAY CONCERN

This is to certify that we have issued/ extended/ amended Bank Guarantee (BG) Number..... amounting to (in number and words in Contract Currency) in favour of NVVN Limited on behalf of M/S (Contractor name) vide their request reference..... dated..... (DD/MM/YYYY) for the period (from)..... (to).....

We confirm that the bank commission (excluding Stamp paper, Out of Pocket Expenses (OPE) and GST on OPE) amounting to (amount and currency) for issuance/ extension/ amendment of the aforesaid BG have been recovered from M/s (Contractor name).

We further confirm that the commission charged on issuance/ extension/ amendment of the aforesaid BG is as per the prescribed rates of the Bank. Further the commission charged by the Bank as per card rates / sanctioned rates is customer/ borrower specific and is uniform for all BGs issued at the request of said customer/ borrower irrespective of beneficiary.

Chief Manager/Branch Manager

SS No: -

ABC Bank Ltd

New Delhi.

(With Seal of Bank Official)