

SECTION - 1
INVITATION FOR BIDS (IFB)

Refurbishment & restoration for the revival of the solar plant with Operation and Maintenance for the remaining period up to 10 years of operation from the date of commissioning of the 48 sites of distributed solar plant of cumulative capacity 51.89 MWp in Maharashtra.

S. No.	Details	
1.	Date of issuance of IFB	19.09.2024
2.	NIT/Bid Document No.:	NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002
3.	Funding	Domestic
4.	Name of the Employer/ Buyer/Owner	<p>Energy Efficiency Services Limited A JV of PSUs under the Ministry of Power Corporate Office at: 5th Floor, Core-3, SCOPE Complex, Lodhi Road, New Delhi - 110003</p> <p>EESL, invites sealed bids from eligible bidders for the subject tender for scope, inter-alia covers “Refurbishment & restoration for the revival of the solar plant with Operation and Maintenance for the remaining period up to 10 years of operation from the date of commissioning of the 48 sites of distributed solar plant of cumulative capacity 51.89 MWp in Maharashtra.” on domestic competitive bidding basis under secured e-procurement procedure.</p>
5.	Publication & e-procurement portal	<p>This invitation for bids follows the e-procurement notice (Invitation for Bids) for the subject package published on EESL Website and e-procurement portal (www.tenderwizard.com/EESL) and on Government of India's Central Public Procurement Portal (https://eprocure.gov.in). Any Corrigendum and/or amendments, etc. shall also be published only on the above website/portals.</p> <p><i>(Refer Annexure-I to this Section for Important Instruction for participation in the e-Bidding).</i></p>
7.	Bidding Procedure	Single Stage Two Envelope Bidding (Domestic Competitive Bidding under e-procurement)
8.	Brief Scope of Work	<p>1. The brief scope of work essentially consists of following:</p> <p>“Refurbishment & restoration for the revival of the solar plant with Operation and Maintenance for the remaining period up to 10 years of operation from the date of commissioning of the 48 sites of distributed solar plant of cumulative capacity 51.89 MWp in Maharashtra” as per Technical Specifications and Scope of work of this RfP.</p> <p><i>(The detailed scope of work is given in the Technical Specification (Part-C of Section-4) of the Bidding Documents).</i></p>

S. No.	Details											
9.	Completion Period/Delivery Schedule	For Detailed Terms and condition related to procedure of allocation of work and supply/delivery schedule kindly refer <i>Section-4 Part C (Scope of work & Technical Specifications)</i> .										
10.	Qualifying Requirements (QR)	The detailed Qualifying Requirements (QR) are given at Section-4 Part-B (QR) .										
11.	Bidding Documents	<p>The complete RfP/ Bidding Documents are available at EESL's e-procurement portal www.tenderwizard.com/EESL.</p> <p>The bidding documents are meant for the exclusive purpose of bidding against this specification and shall not be transferred to any parts or reproduced or used otherwise for any purpose other than for which they are specifically uploaded.</p>										
12.	Pre-bid meeting	<p>Date: 26.09.2024 Time: <u>1100 Hrs. (IST)</u> Place: Kind Attn.: DGM (Contracts)/ Senior Manager (Contracts) Energy Efficiency Services Limited, Core-5, 4th Floor, SCOPE Complex, Lodhi Road, New Delhi-110003 Contact No.: +91 11 45801260 Email: prabodh.singh@eesl.co.in, umohan@eesl.co.in</p> <p>Further it may be mentioned that a Pre-bid meeting will be conducted for this tender as per detail provided in Section-1 IFB and this also be communicated through Portal. However, a query may be forwarded to EESL in the following format within 4 days of floating of inquiry.</p> <table><tr><td>Name of Tender</td><td></td></tr><tr><td>Tender No.</td><td></td></tr><tr><td>Tender ID</td><td></td></tr><tr><td>Bid Opening Date</td><td></td></tr><tr><td>Bidder's Name</td><td></td></tr></table>	Name of Tender		Tender No.		Tender ID		Bid Opening Date		Bidder's Name	
Name of Tender												
Tender No.												
Tender ID												
Bid Opening Date												
Bidder's Name												

S. No.	Details								
		Contact person from Bidder with address, e-mail and Contact No.							
		Sr. No.	Section No.				Description as Per RFP	Queries/ Clarification of the bidder	Remarks
			Page No.						
			Para No/ Clause No.						
		1.	Section No.						
			Page No.						
			Para No/ Clause No.						
		2.	Section No.						
			Page No.						
			Para No/ Clause No.						
		3.	Section No.						
			Page No.						
			Para No/ Clause No.						
		Note: The pre-bid meeting shall be conducted online, for which requisite link is mentioned below.							
		However, those Bidders who wish to attend physically, may do so by reaching the aforementioned address at stipulated date and time.							
		For more details, refer Part A of Section-4 of RfP.							
		13.	Deadline for submission of bids	Soft Copy Part of the Bids: 10.10.2024 <u>up to 1100 Hrs. (IST)</u>					
		Hard Copy Part of the Bids: 10.10.2024 <u>up to 1100 Hrs. (IST)</u>							
NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002			SECTION-1 Invitation for Bid (IFB)		Page 4 of 6				

Note:

- 1.0 Bidding will be conducted through the domestic competitive bidding procedures as per the provisions of ITB, Section-2 and the contract shall be executed as per the provisions of the Contract.
- 2.0 In case Hard copy part of the bid is not received by the Employer till the deadline for submission of the same prescribed by the Employer, but the bidder has uploaded the soft copy part of the bid, the soft copy part of the Envelope-1 (First Envelope) bid uploaded on the portal shall be opened in line with provisions of Bidding Documents. Such bids will be rejected during preliminary examination. However, in case of MSEs who are exempted from submission of Bidding Document/Tender fee and Bid Security/EMD in line with **Annexure-II**, non-submission of Hard copy part shall not lead to outright rejection of the bid, but the documents required to be submitted in the hard copy part shall be sought through clarifications as brought out at **ITB 4.2, Section-2**.
- 3.0 EESL reserves the right to cancel/withdraw this invitation for bids without assigning any reason and shall bear no liability whatsoever consequent upon such a decision.
- 4.0 EESL intends to ringfence payments made by retail customers and funds provided by institutional clients for eligible payments under the contract for the subject tender.

---- End of Section-I (IFB) ----

SECTION - 2
INSTRUCTIONS TO BIDDERS (ITB)

Preamble

This section (Section-2) of the Bidding Documents provides the information necessary for bidders to prepare responsive bids, in accordance with the requirements of the Employer. It also provides information on bid submission and uploading the bid on e-portal, on line bid opening, evaluation and on contract award. This Section (Section 2) contains provisions that are to be used unchanged unless Section-4 (Part-A (BDS)) (Bid Data Sheet), which consists of provisions that supplement, amend, or specify in detail, information or requirements included in Section 2 and that are specific to each procurement, states otherwise. If there is a conflict between the provisions of Section - 2 & Section - 4 (Part-A (BDS)), the provisions of Section - 4 (Part-A (BDS)) shall prevail.

Bidders may note that the Employer has uploaded its “Guidelines, Policy and Procedure for Procurement of Goods, Works and Non-Consulting Services” and various relevant Circulars on EESL’s website. Those Bidders who wish to peruse the same may visit <https://eeslindia.org>. However, it shall be noted that no other party, including the Bidder/Contractor, shall derive any right from this “Guidelines, Policy and Procedure for Procurement of Goods, Works and Non-Consulting Services” documents or have any claim on the Employer on the basis of the same. The respective rights of the Employer and Bidders/Contractors/Suppliers shall be governed by the Bidding Documents/RfP Documents/Contracts signed between the Employer and the Contractor/Supplier for the respective tender(s). The provisions of Bidding Documents shall always prevail over that of “Guidelines, Policy and Procedure for Procurement of Goods, Works and Non-Consulting Services” documents in case of contradiction.

Further in all matters arising out of the provisions of this Section - 2 and the Section - 4 (Part-A (BDS)) of the Bidding Documents, the laws of the Union of India shall be the governing laws and courts of New Delhi shall have exclusive jurisdiction.

In case any clause/provision mentioned in the RfP/Bidding Documents is not applicable with respect to scope of work required to be completed by the Contractor/Supplier, such clause/provision shall become redundant.

SECTION-2

INSTRUCTIONS TO BIDDER (ITB) / CONSORTIUM OF BIDDERS

Topics	Page No.
<u>A. The Bidding Documents</u>	06
<u>1.1 The bidding documents includes the following</u>	06
<u>Interpretations</u>	07
<u>1.2 Clarification on Bidding Documents</u>	08
<u>1.3 Amendment to bidding documents</u>	09
<u>1.4 Cost of tender Documents</u>	09
<u>B. Preparation of Bids</u>	09
<u>2.1 Procedure for Submission of Bid/ RfP</u>	09
<u>2.2 Cost of Bid/ RfP</u>	10
<u>2.3 Language of Bids</u>	10
<u>2.4 Bid Security/ Earnest Money Deposit (EMD)</u>	11
<u>2.5 Power of Attorney</u>	12
<u>2.6 Certificate Regarding Acceptance of Important Terms & conditions</u>	12
<u>2.7 Deviations</u>	12
<u>2.8 Bid Prices</u>	12
<u>2.9 Price Basis</u>	13
<u>2.10 Period of Validity of Bid</u>	13
<u>2.11 Format and Signing of Bid</u>	13
<u>2.12 Contents of the Bid/Proposal</u>	13

<u>2.13 Disclaimer</u>	14
<u>2.14 Authorized Signatory (Bidder or Consortium of bidders)</u>	14
<u>2.15 Consortium related conditions</u>	14
<u>2.16 Contact details of the Bidder or Consortium of bidders</u>	14
<u>2.17 Taxes, Levies and Duties</u>	15
<u>C. Submission of Bids</u>	15
<u>3.1 No heading</u>	15
<u>3.2 Deadline for Submission of Bids</u>	15
<u>3.3 Late Bids:</u>	15
<u>D Bid Opening & Evaluation</u>	16
<u>4.1 Bid Opening Process</u>	16
<u>4.2 Clarification on Bids</u>	16
<u>4.3 Preliminary Examination of Bids</u>	17
<u>4.4 Arithmetical errors rectification process</u>	17
<u>4.5 Preliminary Evaluation</u>	17
<u>4.6 Acceptance of Important Condition</u>	17
<u>4.7 Technical Evaluation</u>	18
<u>4.8 Commercial Evaluation</u>	19
<u>4.9 Evaluations of Deviations</u>	19
<u>a) Technical and Commercial Deviations</u>	19
<u>b) Time schedule (program of performance)</u>	19
<u>c) Functional Guarantees of the facilities</u>	20

<u>d) Work, services, facilities etc., to be provided by the EESL</u>	20
<u>4.10 Opening of Second Envelop</u>	20
<u>4.11 Contacting the Employer</u>	21
<u>E Award of Contract</u>	21
<u>5.1 Award criteria</u>	21
<u>5.2 EESL's right to accept any bid and to reject any or all bids</u>	22
<u>5.3 Notification of Award</u>	22
<u>5.4 Cancellation</u>	22
<u>5.5 Modifications</u>	23
<u>5.6 Contract Performance Security</u>	23
<u>5.7 Corrupt or Fraudulent practices</u>	23
<u>5.8 Ineligibility for Future Tenders</u>	24

SECTION-2

INSTRUCTIONS TO THE BIDDER (ITB)

1.1 The bidding documents include the following:

Section-1	Invitation for Bids (IFB) including Annexure-I (provisions regarding registration on e-portal)
Section-2	Instructions to Bidder / Consortium of Bidders
Section-3	General Conditions of Contract
Section-4 (Part-A)	Bid Data Sheet (BDS) including Annexure-II (Provisions for MSE Bidders and Start-ups)
Section-4 (Part-B)	Qualification Requirement
Section-4 (Part-C)	Technical Specification inter alia, Scope of Work, BoQ and other Parameters
Section-4 (Part-D)	Special Conditions of Contract
Section-5	Measurements and Verification
Section-6	Forms & Procedure

The bidder is expected to examine all the instructions, forms, terms, specifications and other information in the bidding documents. Failure to furnish all information required by 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 bid.

1.1.1 Source of Funds:

The Employer named in the BDS intends to use domestic funding for this Project. All eligible payments under the contract for the Tender for which this Invitation for Bids is issued shall be made by the Employer named in the BDS.

1.1.2 Eligible Bidders:

- (i) This Invitation for Bids, issued by the Employer is open to all firms including company(ies), Government owned Enterprises registered and incorporated in India as per Companies Act, 1956, barring Government Department as well as foreign bidders/MNCs not registered and incorporated in India and those bidders with whom business is banned by the Employer.

A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:

- (a) they have a controlling partner in common; or
(b) they receive or have received any direct or indirect subsidy from any of them;

NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002	SECTION -2 Instructions To Bidders (ITB)	Page 6 of 25
---------------------------------------------------------------------------------------	------------------------------------------	--------------

or

- (c) they have the same legal representative for purposes of this bid; or
 - (d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or
 - (e) a Bidder submits more than one bid in this bidding process, either individually [including bid submitted as an agent/authorized representative on behalf of one or more manufacturer(s) or through Licensee – Licensor route, wherever permitted as per the provision of Qualification Requirement for the Bidders in Part – B, Section-4] or as a partner in a joint venture, except for alternative offers permitted under the RfP Documents. This will result in the disqualification of all such bids. However, this does not limit the participation of a Bidder as a subcontractor in another bid, or of a firm as a subcontractor in more than one bid; or
 - (f) a Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the Plant and Installation Services and Facilities that are the subject of the bid; or
 - (g) a Bidder (including its personnel or sub-contractors) has a business or family relationship with a member of a EESL's staff (or of the project implementing staff, or of a recipient of a part of the loan) who: are directly or indirectly involved in the preparation of the bidding documents or specifications of the contract, and/or the bid evaluation process of such contract; or would be involved in the implementation or supervision of such contract unless the authority inviting tenders shall be informed of the fact/ such relationship at the time of submission of the tender and the conflict stemming from such relationship has been resolved in a manner acceptable to the EESL throughout the procurement process and execution of the contract. EESL may in its discretion reject the tender or rescind the contract.; or
 - (h) a Bidder or any of its affiliates has been hired (or is proposed to be hired) by the Employer as Project Manager for the contract.
- (ii) The Bidder, directly or indirectly shall not be a dependent agency of the Employer.
 - (iii) In case a prequalification process has been conducted prior to the bidding process, this bidding is open only to prequalified Bidders.

1.1.3 Interpretations

1. Words comprising the singular shall include the plural & vice versa

NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002	SECTION -2 Instructions To Bidders (ITB)	Page 7 of 25
---------------------------------------------------------------------------------------	------------------------------------------	--------------

2. An applicable law shall be construed as reference to such applicable law including its amendments or re-enactments from time to time.
3. A time of day shall save as otherwise provided in any agreement or document be construed as a reference to Indian Standard Time.
4. Different parts of this contract are to be taken as mutually explanatory and supplementary to each other and if there is any differentiation between or among the parts of this contract, they shall be interpreted in a harmonious manner so as to give effect to each part.
5. The table of contents and any headings or sub headings in the contract has been inserted for case of reference only & shall not affect the interpretation of this agreement

1.2 Clarification on Bidding Documents

A prospective Bidder requiring any clarification to the bidding documents may notify the EESL in writing or by post or by telex or telefax or email) at the EESL's mailing address indicated in the BDS. The EESL will respond in writing to any request for clarification or modification of the bidding documents that it receives no later than ten (10) days prior to the deadline for submission of bids prescribed by the EESL. Written copies of the EESL's response (including an explanation of the query but not identification of its source) will be sent to all prospective Bidders.

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.

EESL will also facilitate the bidder and any of its personnel or agents for getting permission from the authorities, where actual work is to be executed, 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 EESL and also the authorities, where work is to be executed, 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.

Whenever the bidder is silent about the acceptance of RfP/IFB conditions such as bank guarantee, warranty period, liquidated damages, certification of relation clause no.1.1.2 [Conflict of Interest] etc. it shall be presumed that the bidder has accepted and certified RfP/IFB conditions and no further correspondence seeking specific confirmation about acceptance of these conditions shall be made.

The Bidder shall be deemed to have examined the Bidding document, to have obtained his own information in all matters whatsoever that might affect carrying out the Works in line with the technical specifications and Scope of Work specified in the document at the offered rates and to have satisfied himself to the sufficiency of his Bid. The bidder shall be deemed

NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002	SECTION -2 Instructions To Bidders (ITB)	Page 8 of 25
---------------------------------------------------------------------------------------	------------------------------------------	--------------

to know the scope, nature and magnitude of the work and requirement of materials, equipment, tools and labor involved, local and national wage structures and as to what all works, he has to complete in accordance with the Bid documents irrespective of any defects, omissions or errors that may be found in the Bidding documents.

1.3 Amendment to bidding documents

At any time prior to the deadline for submission of bids, the EESL may, for any reason, whether at its own initiative, or in response to a clarification requested by a prospective Bidder, amend the bidding documents.

The amendment will be notified only through the e-procurement portal. Further, the notification of amendment shall also be sent by the portal directly to all the prospective bidders who have performed the requisite activity on the e-Portal for the subject tender as per the provisions of the Portal. The amendments to the Bidding Documents will be binding on the bidders and the notification of the amendment through portal, sent to the prospective bidders, shall be deemed to be construed that such amendment(s) to the Bidding Documents have been taken into account by the Bidder in its bid.

In order to afford prospective Bidders reasonable time in which to take the amendment into account in preparing their bid, the EESL may, at its discretion, extend the deadline for the submission of bids.

1.4 Cost of tender Documents

Interested bidder/consortium of bidders may download the RfP/ Bidding documents from the website/e-portal mentioned in the BDS.

While submitting the bid (in case RfP/Bidding documents are downloaded from EESL website), bidder shall submit Tender Document Cost/fee as per the details mentioned in BDS.

B. Preparation of Bids

2.1 Procedure for Submission of Bid/RfP.

Single Stage Two Envelope Bidding Process:

The Bidder shall submit their bids as Envelope-1 and Envelope-2. Two Envelopes should contain the details of the offer as follows:

Packet-1 of Envelope-I should contain (This envelope appears ONLINE in dynamic form in case of E-tenders)

- i. Tender Document Fee in the form of DD/Pay Order/Banker's Cheque (wherever applicable) or through online as per ITB sub clause 1.4.
- ii. Letter of the bidder submitting the bid in the form as stipulated in the bid

NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002	SECTION -2 Instructions To Bidders (ITB)	Page 9 of 25
---------------------------------------------------------------------------------------	------------------------------------------	--------------

- document, i.e., as per Bid Form as **Attachment-1 of Section-6** (Forms& Procedures).
- iii. Bid Security/Earnest Money Deposit in the form of Banker's Cheque/Demand Draft/Pay order in favor of "Energy Efficiency Services Limited" or in the form of Bank Guarantee as prescribed format as **Attachment-2 of Section-6** (Forms& Procedures). (Only EMD and Bid document fee related document to be submitted by post in sealed envelope super-scribed with RfP/Tender reference in case of e-tender).
 - iv. Power of attorney to sign the bid as **Attachment-3 of Section-6** (Forms& Procedures). Bidders to use their own format.
 - v. Certificate regarding acceptance of important terms and conditions as per ITB sub-Clause No. 4.6 as **Attachment-4 of Section-6** (Forms& Procedures).
 - vi. Deviation statement as per **Attachment-5 of Section-6** (Forms& Procedures).
 - vii. Form of acceptance of EESL fraud prevention policy as per **Attachment-6 of Section-6** (Forms& Procedures).
 - viii. An undertaking by Holding company (as applicable) as per **Attachment-7 of Section-6** (Forms& Procedures).
 - ix. Format for Details regarding RTGS/NEFT Payments as per **Attachment-8 of Section-6** (Forms& Procedures).
 - x. Compliance Matrix/ CHECK - LIST FOR BIDDERS as per **Attachment-9 of Section-6** (Forms& Procedures).
 - xi. Certification regarding Declaration of Local content as per **Attachment-10 of Section-6** (Forms& Procedures).
 - xii. Certification by the Bidder as per order no. F.No.6/18/2019-PPD dated 23/07/2020 issued by Public Procurement Division, Department of Expenditure, Ministry of Finance, Government of India (DoE Order) as per **Attachment-11 of Section-6** (Forms& Procedures).
 - xiii. Techno-commercial bid as indicated in bid document. Documentary evidence regarding bidder's qualifications to perform the contract as required in qualifying Requirement as per **Attachment-12 of Section-6** (Forms& Procedures).
 - xiv. Declaration duly signed on Company Letter Head Pad with company's seal for not being under debar list/undergoing debarment period on account of breach of the code of integrity under rule 175(1)(i)(h) of general financial rules (Scanned Copy to be uploaded at E-tendering portal). Bidder shall clearly mention tender reference no. and date of signing the self-declaration as per **Attachment-13 of Section-6** (Forms& Procedures).
 - xv. Certificate regarding non-debarment/blacklisting/disqualification as per **Attachment-14 of Section-6** (Forms& Procedures).

Envelope-2 should contain Price Bid, shall comprise of: (In case of E-tender Price bid is to be submitted ONLINE)

- i. Price Bid in the format prescribed in the tender document.

NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002	SECTION -2 Instructions To Bidders (ITB)	Page 10 of 25
---------------------------------------------------------------------------------------	------------------------------------------	---------------

2.2 Cost of Bid/ RfP

The Bidder or Consortium of bidders shall bear all costs associated with the preparation and submission of its Bid/RfP, including cost of presentation for the purposes of clarification of the bid, if so desired by the EESL. EESL will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.

2.3 Language of Bids

The proposal prepared by the bidder/consortium of bidders and all correspondence and documents relating to the Bid/RfP exchanged by the bidder/consortium of bidders and EESL, shall be written in English language, provided that any printed literature furnished by the bidder/consortium of bidders may be written in another language so long the same is accompanied by an English translation by authorized Translator in which case, for purposes of interpretation of the bid, the English translation shall govern.

2.4 Bid Security/Earnest Money Deposit (EMD)

Amount of Bid Security: Bid Security/Earnest Money deposit as mentioned in BDS is to be submitted.

The bidder shall furnish, as part of its bid, a bid security in a separate envelope (ITB sub clause 2.1). The bid security shall, at the bidder's option, in the form of a Banker's cheque, Demand Draft in favor of "Energy Efficiency Services Limited" payable at New Delhi or a bank guarantee as per format in Section 6. Bid security/EMD shall remain valid for a period of 45 days beyond the original bid validity period. If there is any extension in bid validity period, then EESL may ask the bidder to extend the validity of bid security.

Any bid not accompanied by an acceptable bid security, shall be rejected by EESL as being non-responsive and returned to the bidder without being opened. The bid security of a consortium must be in the name of all the partners in the consortium submitting the bid. If lead partner is mentioned in case of consortium, then bid security can be in the name of lead partner.

The bid securities of unsuccessful bidders will be returned as promptly as possible after the award is made to lowest evaluated bidder.

The bid security of the successful bidder will be returned when the bidder has signed the contract agreement and has furnished the required performance security.

Please note that for Tender Conditions inter alia including exemption of tender fee, Bid Security etc. applicable for MSE and Start-ups, please refer **Annexure-II**:

The bid security may be forfeited if:

NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002	SECTION -2 Instructions To Bidders (ITB)	Page 11 of 25
---------------------------------------------------------------------------------------	------------------------------------------	---------------

- a) If the bidder withdraws its bid during the period of bid validity as specified in the bid / RFP document. (Banning policy as per Annexure-IV of RfP document)
- b) If the bidder does not accept computational/arithmetical error correction made by EESL and as explained in “Financial Evaluation” section of the Bid/ RfP document.
- c) If the bidder does not accept assumptions, estimations etc. used for evaluation of bids as specified by EESL in tender documents and revision of his bid accordingly, in case other assumptions are used. If the bidder does not accept the sharing as specified in the bid.
- d) If the Bidder refuses to withdraw, without any cost to the EESL, any deviation not listed in Attachment 5 but found elsewhere in the bid; or
- e) In the case of successful bidder, if the bidder fails within the specified time limit:
 - To sign the contract agreement within 28 days of placement of LoI/Award letter.
 - To furnish the required performance security, in accordance with the tender document.

2.5 Power of Attorney as Attachment 3 of Section-6 in first envelope: A power of attorney duly authorized by a notary public, indicating that the person(s) signing the bid has/have the authority to sign the bid and thus the bid is binding upon the bidder during the full period of its validity in accordance with ITB sub clause 2.10.

2.6 Certificate Regarding Acceptance of Important Terms & conditions – Please refer Part-A of BDS.

2.7 Deviations, if any, from the terms and conditions of bidding documents or technical specifications shall be listed only in Attachment 5 of Section-6 to the bid. The Bidder shall also provide the additional price, if any, for withdrawal of the deviations. However, the attention of the bidders is drawn to the provisions of ITB sub clause 4.6 regarding the rejection of bids that are not substantially responsive to the requirements of the bidding documents.

Bidders may further note that except for the deviations listed in Attachment 5, the bid shall be deemed to comply with all the requirement in the bidding documents and the bidders shall be required to comply with all such requirements of bidding documents and technical specifications without any extra cost to the EESL irrespective of any mention to the contrary, anywhere else in the bid, failing which the bid security of the bidder may be forfeited.

At the time of award of contract, if so desired by the EESL, the bidder shall withdraw these deviations listed in Attachment-5 at the cost of withdrawal stated by him in his bid. In case the bidder does not withdraw the deviations proposed by him, if any, at the cost of withdrawal stated in the bid, his bid will be rejected and bid security forfeited.

NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002	SECTION -2 Instructions To Bidders (ITB)	Page 12 of 25
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2.8 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, survey cost, monitoring and verification cost and completion of the facilities including supply of mandatory spares or spares to be supplied during warranty (if any). This includes all requirements under the contractor’s responsibilities for testing, pre -commissioning and commissioning of the facilities 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 Specification.

Bidders are required to quote the price for the commercial, contractual and technical obligations outlined in the bidding documents. If a Bidder wishes to make a deviation to the provisions of the bidding documents, such deviations shall be listed in Attachment 5 of Section-6 of its bid. The bidder shall also provide the additional price, if any, for withdrawal of the deviations, pursuant to ITB sub clause 2.7.

Bidders shall give a breakdown of the prices in the manner and detail called for in the price schedules.

2.9 Price Basis

Price quoted in the bid must be firm and shall remain firm during currency of the Contract. Hence prices in Letter of Award shall be firm and not subject to escalation till the execution of the complete order and its subsequent amendments accepted by the bidder even though the completion / execution of the order may take longer time than the delivery period specified and accepted in the Notification of Award.

Statutory variation in applicable GST shall only be on account of Employer in case bidder has shown the rates of present taxes in their bid and other prices quoted by the Bidder shall be fixed during the Bidder’s performance of the Contract and not subject to variation on any account. Even in case prices asked in Bid price Schedule are quoted as inclusive of taxes, tax rates shall be shown separately. Bidders shall quote all prices in Indian Rupees only. Employer shall bear no responsibility on account of Taxes and Duties other than GST.

2.10 Period of Validity of Bid

Bids shall remain valid for a period of Six Months from opening of Bids. A bid valid for a shorter period may be rejected by the EESL as being non-responsive. In exceptional circumstances, the EESL may solicit the bidder’s consent to an extension of the bid validity

period. The request and response thereto shall be made in writing thro' letters/ e-mails. If the bidder accepts to prolong the period of validity, the bid security/EMD shall also be suitably extended. A bidder may refuse the request for Bid Validity Extension without forfeiting its bid security. A bidder granting the request will not be required nor permitted to modify its bid.

2.11 Format and Signing of Bid

The original copy of the bid, consisting of the documents listed in ITB Sub-Clause 2.1 shall be typed or written in indelible ink and shall be signed by the bidder or a person or persons duly authorized to bind the bidder to the contract. The authorization shall be indicated by written power of attorney accompanying the bid and submitted as relevant attachment under Section-6 to the bid under ITB sub clause 2.1. All pages of the bid, except for un-amended printed literature, shall be initialled by the person or persons signing the bid.

Any interlineations, erasures or overwriting shall only be valid if they are initialled by the signatory to the bid.

2.12 Contents of the Bid/proposal

The Bidder or consortium of bidders is expected to examine all instructions, forms, terms & conditions and scope of work in the RfP documents. Failure to furnish all information required or submission of a bid not substantially responsive to the RfP/Bidding Document in every respect will be at the bidder's risk and may result in the rejection of the bid.

2.13 Disclaimer

EESL and/or its officers, employees disclaim all liability from any loss or damage, whether foreseeable or not, suffered by any person acting on or refraining from acting because of any information including statements, information, forecasts, estimates or projections contained in this document or conduct ancillary to it whether or not the loss or damage arises in connection with any omission, negligence, default, lack of care or misrepresentation on the part of EESL and/or any of its officers, employees.

2.14 Authorized Signatory (Bidder or Consortium of bidders)

The bidder or consortium of bidders as used in the RfP document shall mean the one who has signed the bid document. The bidder or consortium of bidders should be the duly authorized representative of the bidder/consortium of bidders, for which a certificate of authority/power of attorney will be submitted along with the offer. This should clearly define the authority provided to the authorized representative. Complete offer, all certificates and documents (including reply to any clarifications sought and any subsequent correspondences) shall be furnished and signed on all pages by the authorized representative.

The power of attorney or authorization, or any other document consisting of adequate proof of the ability of the signatory to bind the bidder or consortium of bidders shall be annexed to the bid as Attachment 3 in Envelope 1. EESL may reject outright any proposal not supported by adequate proof of the signatory's authority.

2.15 Consortium related conditions

The bidder shall have the option to submit the bid/proposal either alone or along with other partner companies. Prerequisites for bidder have been specified in qualifying requirement and other parts of the RfP document. The lead partner shall be the sole point of contact for all purposes of the Contract. The lead partner will have the prime responsibility for the execution of the scope of work. Any information/clarification submitted to the lead partner by EESL will mean that the same has been conveyed to all partners. However, the partner companies should not be involved in any major litigation that may have an impact of affecting or compromising the delivery of services as required under this contract. The bidder or any of the partner companies should not have been black-listed by any Central / State Government or Public Sector Undertakings. If at any stage of tendering process or during the currency of the contract, any suppression / falsification of such information is brought to the knowledge, EESL shall have the right to reject the proposal or terminate the contract, as the case may be, without any compensation to the tenderer & forfeiture of bid security/EMD/CPG. All partners of the consortium/joint venture shall be liable jointly and severally for the execution of the contract in accordance with the contract terms

2.16 Contact details of the Bidder or Consortium of bidders

Bidder or Consortium of bidders who wants to receive EESL's response to queries should give their contact details to EESL. The Bidder or Consortium of bidders should send their contact details in writing at the EESL's contact address.

2.17 Taxes, Levies and Duties

Bidders are required to quote their prices inclusive of all taxes and duties except applicable GST. The Input Tax Credit (ITC) available, if any, under the GST Law as per the relevant Government policies wherever applicable shall be taken into account by the Bidder while quoting bid price. EESL's liability shall be only for applicable GST. Bidder is to arrange on its own to deliver the material at site. No road permit shall be provided by EESL.

C. Submission of Bids

Bids shall be submitted as per clause ITB sub clause 2.1 above and in line with the provisions of Annexure-I to this RfP Documents.

3.1 The Bidder shall upload the soft copy part of the bid as per the provisions of the e-portal (refer ITB sub clause 2.1 above) and submit the hard copy of documentary evidence towards Document fee or documentary evidence in support of exemption of Document fee (as applicable), Bid Security or documentary evidence in support of exemption of Bid Security (as applicable).

The envelope in hard copy shall

- (a) be addressed to the Employer at the address given in this RfP Documents, and
- (b) bear the tender name, the Invitation for Bids title and number indicated in the BDS, and the statement "Do Not Open Before [date]," to be completed with the time and date specified.

All the envelopes shall also indicate the name and address of the Bidder. If the envelope is not sealed and marked as required, the Employer will assume no responsibility for the bid's misplacement or premature opening.

3.2 Deadline for Submission of Bids

Bids must be received at the address specified in the BDS but no later than the time and date stated in the BDS. In the event of the specified date for submission of bids being declared a holiday for the EESL, the bids will be received up to the appointed time on the next working day.

The EESL may, at its discretion, extend this deadline for submission of bids by amending the bidding documents in accordance with ITB sub clause 1.3, in which case all rights and obligations of EESL and bidders will thereafter be subject to the deadline as extended.

3.3 Late Bids:

The bidder shall not be permitted to submit the soft copy part of the bid by any mode other than uploading on the portal within the specified deadline for submission of bids. The e-Procurement system would not allow any late submission of bids through the portal after due date & time as specified in ITB sub clause 3.2.

In case Hard copy part of the bid is received by the Employer after the deadline for submission of the same prescribed by the Employer in the ITB sub clause 3.2, but the bidder has uploaded the soft copy part of the bid, the bid will be considered as late bid. In such a case, the soft copy part of the first envelope bid uploaded on the portal shall be opened in line with the provisions of Bidding Documents. Such bids will be rejected during preliminary examination. However, in case of MSEs who are exempted from submission of Document fee and Bid security in line with Annexure-II, submission of hard copy part after

NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002	SECTION -2 Instructions To Bidders (ITB)	Page 16 of 25
---------------------------------------------------------------------------------------	------------------------------------------	---------------

the deadline for submission of the same prescribed by the Employer in the ITB sub clause 3.2, shall not lead to outright rejection of the bid., but the documents required to be submitted in the hard copy part shall be sought through clarifications as brought out at ITB sub clause 4.2

No bid may be withdrawn in the interval between the bid submission deadline and the expiration of the bid validity period specified in ITB sub clause 2.10. Withdrawal of a bid during this interval may result in the Bidder's forfeiture of its bid security, pursuant to ITB sub clause 2.4

(D) Bid Opening and Evaluation.

4.1 Bid Opening Process

The Employer will open the Envelope -1 (First Envelope) i.e., Techno – Commercial Part in public in the presence of bidders" designated representatives who choose to attend, at the time, date, and location stipulated in the ITB sub clause 3.2. The bidders" representatives who are present shall sign a register evidencing their attendance. Bidder who has submitted their bid may view on line tender opening on the portal from their end. In the event of the specified date for the submission of bids being declared a holiday for the Employer, the bids will be received upto the appointed time on the next working day.

The bidders' names, the presence of bid security, and any such other details as the Employer may consider appropriate, will be get declared through the Portal by the Employer. However, opening of bid, whether or not accompanied with the Tender fee and/or bid security, shall not be construed to imply its acceptability which shall be examined in detail pursuant to the provisions contained in the Section-2 & 3.

The Employer shall prepare minutes of the bid opening in the form of Bid Opening Statement, including the information disclosed to those present.

Bids not opened at bid opening shall not be considered further for evaluation, irrespective of the circumstances and shall be send to archive unopened

4.2 Clarification on Bids

During bid evaluation, the EESL may, at its discretion, ask the bidder for a clarification of its bid as per the BDS. The request for clarification and the response shall be in writing, and no change in the price or substance of the bid shall be sought, offered or permitted. The address for communication will be same as ITB sub clause 1.2.

4.3 Preliminary Examination of Bids.

NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002	SECTION -2 Instructions To Bidders (ITB)	Page 17 of 25
---------------------------------------------------------------------------------------	------------------------------------------	---------------

The Employer will examine the bids to determine whether they are complete, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order.

In case of non-submission of bid in the portal (soft copy part of the bid) within the stipulated deadline, then even if the bidder has submitted the specific documents in hard copy part in original within the stipulated deadline pursuant to ITB sub clause 3.2 its bid shall be considered as incomplete bid, which shall be summarily rejected. Similarly, in case of non-submission of Hard copy part of the bid, but the bidder has uploaded the soft copy part of the bid, the bid will be considered as incomplete bid. In such a case, the soft copy part of the first envelope bid uploaded on the portal shall be opened. Such bids will be rejected during preliminary examination. However, in case of MSEs who are exempted from submission of tender fee and Bid Security, non-submission of Hard copy part shall not lead to outright rejection of the bid.

4.4 Arithmetical errors rectification process

Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price, which is obtained by multiplying the unit price and quantity, or between sub totals and the total price, the unit or subtotal price shall prevail, and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail. If the Bidder does not accept the correction of errors, its bid will be rejected and the bid security will be forfeited in accordance with ITB sub clause 2.4.

The EESL may waive any minor informality, nonconformity or irregularity in a bid that does not constitute a material deviation, whether or not identified by the bidder in Attachment 4 to its bid, and that does not prejudice or affect the relative ranking of any bidder as a result of the technical and commercial evaluation, pursuant to ITB sub clauses 4.7 and 4.8.

4.5 Preliminary Evaluation

Prior to the detailed evaluation, the EESL will determine whether each 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, conditionality's 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 EESL'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.

4.6 Acceptance of Important Condition

NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002	SECTION -2 Instructions To Bidders (ITB)	Page 18 of 25
---------------------------------------------------------------------------------------	------------------------------------------	---------------

No deviation, whatsoever, is permitted by the EESL to the provisions relating to the following clauses (Important Conditions). Party is to submit the following as Attachment 4 of Section-6 in Envelope 1:

Governing Laws	-	Clause 13 of GCC
Settlement of Disputes	-	Clause 14 of GCC
Terms of payment	-	Clause 21 of GCC
Contract Performance Security-	-	Clause 24 of GCC
Taxes and Duties	-	Clause 25 of GCC
Defects Liability	-	Clause 30 of GCC
Patent Indemnity	-	Clause 31 of GCC
Limitations of Liability	-	Clause 46 of GCC
Project information, Estimation, Assumptions and conditions for Evaluation	-	As per Tables in price bid

Bidders are required to furnish a certificate as per Attachment 4, indicating their compliance to the provisions of the above clauses.

At the time of award of contract, if so desired by the EESL the bidder shall withdraw the deviations listed in attachment 5 at the cost of withdrawal stated by him, in his bid. In case the bidder does not withdraw the deviations proposed by him in Attachment 5 to his bid, if any; at the cost of withdrawal stated in his bid, his bid will be rejected and security will be forfeited.

The EESL'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 the EESL, and may not subsequently be made responsive by the bidder by correction of the nonconformity.

4.7 Technical Evaluation

The EESL will carry out a detailed evaluation of the bids previously determined to be substantially responsive 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, the EESL 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:

NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002	SECTION -2 Instructions To Bidders (ITB)	Page 19 of 25
---------------------------------------------------------------------------------------	------------------------------------------	---------------

- a) Overall completeness and compliance with the technical specifications and drawings; deviations from the technical specifications as identified in Attachment 5 to the bid; suitability of the facilities offered in relation to the environmental and 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) Achievement of specified performance criteria by the facilities as per scope of work
- c) Type, quantity and long-term availability warranty spare parts and also mandatory and recommended spare parts and maintenance services
- d) Any other relevant factors, if any, listed in the tender document, or that the EESL deems necessary or prudent to take into consideration.

4.8 Commercial Evaluation

The EESL's evaluation of a bid will take into account, in addition to the bid prices indicated in price schedules in section 4 along with the corrections pursuant to ITB sub clause 4.3, the following costs and factors that will be added to each bidder's bid price in the evaluation using pricing information available to the EESL, in the manner and to the extent indicated in ITB sub clause 4.9 and in the technical specifications:

- a) The cost of all quantifiable deviations and omissions from the contractual and commercial conditions and the technical specifications as identified in Attachment 5 to the Bid.
- b) Compliance with the time schedule called for and evidenced as needed in a milestone schedule provided in the bid.
- c) The functional guarantees of the facilities offered as per scope of work.
- d) The extra cost of work, services, facilities etc., required to be provided by the EESL of third parties.

4.9 Evaluations of Deviations:

Pursuant to ITB Sub-Clause 4.8, the following evaluation methods will be followed:

- a) Technical and Commercial Deviations

The evaluation shall be based on the evaluated cost of fulfilling the contract in compliance with all commercial, contractual and technical obligations under this bidding document. In arriving at the evaluated cost, the price for withdrawal of deviations shown in Attachment 5 to the bid will be used if necessary. If such a price is not given in Attachment-5, the EESL will make its own assessment of the cost of such a deviation for the purpose of ensuring fair comparison of bids.

- b) Time schedule (program of performance)

NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002	SECTION -2 Instructions To Bidders (ITB)	Page 20 of 25
---------------------------------------------------------------------------------------	------------------------------------------	---------------

The plant and equipment covered by this bidding are required to be transported/ shipped and installed, and the facilities are to be completed within the period as mentioned below.

Completion of all facilities/work: As per year/months indicated in SCC.

The above date will be the effective date specified in the contract agreement. Bidders are required to base their prices on the time schedule or, where no time schedule is given, on the completion date(s) given above. No credit will be given for earlier completion.

The master network and the key milestone dates will be discussed with the successful bidder and agreed upon in pre-award discussion before issuance of Letter of Award. Engineering drawing and data submission schedule shall also be discussed and finalized before the issuance of Letter of Award.

After the Letter of Award, the contractor shall plan the sequence of work manufacture, supply, installation 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 sequence.

c) Functional Guarantees of the facilities (if Applicable)

Bidders shall state the functional guarantees (e.g., performance, efficiency, 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 guarantees 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 shall be rejected.

d) Work, services, facilities etc., to be provided by the EESL

Where bids include the undertaking of work or the provision of services or facilities by the EESL in excess of the provisions allowed for in the bidding documents, the EESL shall assess the costs of such additional work, services and/or facilities during the duration of the contract. Such costs shall be added to the bid price for evaluation.

4.10 Opening of Second Envelope

The Second Envelope i.e., Price Part of only those Bidders shall be opened who are determined as having submitted substantially responsive bids and are ascertained to be qualified to satisfactorily perform the Contract. Such Bidders shall be intimated through portal only about the date and time for opening of Price Part i.e., Envelope-2 (Second Envelope) of the Bids by the Employer. A negative determination of the bids shall be notified by the Employer to such Bidders through portal only and the Second Envelope submitted by them shall be sent to archive unopened and the bid security shall be returned.

The Price Part containing any deviations and omissions from the contractual and commercial conditions and the Technical Specifications which have not been identified in the First Envelope are liable to be rejected

- (a) The Employer's evaluation of a bid will take into account, in addition to the bid prices indicated in online Price Schedule (Second Envelope), the following costs and factors 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 herein and in the Technical Specifications:
- (b) the cost of all quantifiable deviations and omissions from the contractual and commercial conditions and the Technical Specifications as identified in the evaluation of First Envelope, and other deviations and omissions not so identified;
- (c) any other relevant factors listed in this RfP Documents.

Pursuant to aforesaid, the evaluation shall be based on the evaluated cost of fulfilling the contract in compliance with all commercial, contractual and technical obligations under this Bidding Documents. In arriving at the evaluated cost, towards deviations whether material or minor identified in the evaluation of First Envelope, the cost of withdrawal indicated by the bidder in Attachment-5 of the First Envelope will be used. If such a price is not given except for material deviation, the Employer will make its own assessment of the cost of such a deviation for the purpose of ensuring fair comparison of bids. In those cases, where the bidder has taken a material deviation but has not indicated the cost of withdrawal, the bid shall be treated as non- responsive and shall not be considered further.

4.11 Contacting the Employer

Subject to GCC Clause 20, no Bidder shall contact the Employer on any matter relating to its bid, from the time of the opening of bids to the time the contract is awarded.

Information relating to the examination, evaluation and comparison of bids and recommendations for the award of contract shall not be disclosed to bidders or any other persons not officially concerned with such process until the award to the successful bidder has been announced. Any effort by a Bidder to influence the Employer in the Employer's bid evaluation, bid comparison or contract award decisions may result in rejection of the Bidder's bid.

NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002	SECTION -2 Instructions To Bidders (ITB)	Page 22 of 25
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5. Award of Contract

5.1 Award criteria

Subject to ITB Clause 5.5, the EESL will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and to be the lowest evaluated technically acceptable bid or bid offering highest return to EESL as the case may be as per RfP/Bidding documents, further provided that the Bidder is determined to be qualified to perform the contract satisfactorily

Except for the deviations listed in Attachment-5, the bidder would be required to comply with all the requirements of bidding documents without any extra cost to EESL failing which his bid security will be forfeited. Further, the EESL may request the bidder to withdraw any or all of the deviations listed in Attachment - 5 to the winning bid, at the price shown for the deviation in Attachment 5 to the bid. In case the bidder does not withdraw the deviations proposed by him, if any, at the cost of withdrawal stated in the bid, his bid will be rejected and bid security forfeited.

The mode of contracting with the Successful Bidder will be as per stipulation briefly indicated below:

Single Contract shall be placed for following Price Components:

- a) For supply of plant and equipment;
- b) 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, erection, testing & commissioning in respect of all the Goods supplied under the 'First Contract' and all other
- c) Any other Services as specified in the Contract Documents.

5.2 EESL's right to accept any bid and to reject any or all bids

The EESL 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 assigning any reason thereof and incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the EESL's action.

5.3 Notification of Award

Prior to the expiration of the period of bid validity, the EESL will notify the successful bidder in writing by issuing Notification of Award (NOA) either through telefax/ scanned e-mail or through registered/speed post/couriered letter, that its bid /offer has been accepted. The Notification of Award (NOA) will constitute the formation of the contract.

The bidder shall return duplicate copy of the NOA/contract and the other enclosed documents duly signed as a token of acknowledgement, within 07 days from the date of

receipt of this order. Bidder is to make two original copies of Contract Agreement as per the format attached in the RfP Documents.

Upon the successful bidder's furnishing of the performance security pursuant to ITB Clause 5.6, the EESL will promptly notify each unsuccessful bidder and will discharge its bid security.

5.4 Cancellation

EESL reserves the rights to cancel the order in the part or in full by giving one-week advance notice thereby if-

- The bidder fails to comply with any of the terms of the order.
- The bidder becomes bankrupt or goes in to liquidation.
- The bidder makes general assignment for the benefit of the creditors and any receiver is appointed for the property owned by the bidder.

5.5 Modifications

This order constitutes an entire agreement between the parties hereto. Any modifications to this Order shall become binding only upon the same being confirmed in writing duly signed by both the parties.

5.5.1 Signing the Contract Agreement

At the same time as the EESL notifies the successful Bidder that its bid has been accepted, the EESL will send the bidder the contract agreement provided in the bidding documents, incorporating all agreements between the parties.

5.6 Contract Performance Security

Within twenty-eight (28) days after receipt of the Notification of Award, the successful bidder shall furnish the performance security for ten percent (10%) of the contract price or as specified in RfP/Bidding Documents and in the form provided in the section "Forms and Procedures" of the bidding documents or in another form acceptable to the EESL.

In case Joint Deed(s) of Undertaking by the Contractor along with his associate(s)/collaborator(s) form part of the Contract, then, unconditional Bank Guarantee(s) from such associate(s)/collaborator(s) for amount(s) specified in Bid

Failure of the successful Bidder to comply with the requirements of ITB Clause 5.4 and/ or Clause 5.6 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the EESL may make the award to the next lowest evaluated bidder or call for new bids.

5.7 Corrupt or Fraudulent practices:

NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002	SECTION -2 Instructions To Bidders (ITB)	Page 24 of 25
---------------------------------------------------------------------------------------	------------------------------------------	---------------

The EESL requires that bidders observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the EESL: 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 EESL, 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 EESL of the benefits of free and open competition;
- (iii) 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;
- (iv) will declare a firm ineligible, either indefinitely or for a stated period of time, 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 EESL (as per Annexure-IV of RfP Document)

5.8 Ineligibility for Future Tenders

Notwithstanding the provisions specified in ITB sub clause 2.4 and ITB sub clause 5.4 and 5.5, if a bidder after having been issued a Notification of Award, either does not sign the Contract Agreement pursuant to ITB sub clause 5.5 and/or does not submit an acceptable Contract Performance Security pursuant to ITB sub clause 5.6, such bidder may be considered ineligible for participating in future tenders of EESL for a period as may be decided by the EESL.

Successful bidder is to submit interchangeability certificate for its product supplied for replacement during warranty and maintenance period and even when it is purchased from open market. In case due to change in technology, the supplied product is not available during warranty/ maintenance period than the improved version of product can be used in warranty/ maintenance period with same or improved technical parameters or the combination thereof after written communication of Engineer in Charge at same cost& terms and conditions. Successful Bidder, on whom letter of award has been placed, has also to confirm that the prices of improved version of product is not lesser than the original product or its parts in comparison.

----- End of Section-2 (ITB) ---

NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002	SECTION -2 Instructions To Bidders (ITB)	Page 25 of 25
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SECTION-3
GENERAL CONDITIONS OF CONTRACT (GCC)

GENERAL CONDITIONS OF CONTRACT

Preamble

This Section (Section -3) of the Bidding Documents [named as General Conditions of Contract (GCC)] provides all the rights and obligations of the parties under the Contract. This Section contains provisions that are to be used unchanged unless Section - 4 (Part-D (SCC)) [named as Special Conditions of Contract (SCC)] states otherwise as any changes in GCC or any complementary information that may be needed has been shown in SCC. If there is a conflict between the provisions of Section - 3 & Section - 4 (Part-D (SCC)), the provisions of Section - 4 (Part-D (SCC)) shall prevail.

In case any clause/provision mentioned in the RfP/Bidding Documents is not applicable with respect to scope of work required to be completed by the Contractor/Supplier, such clause/provision shall become redundant.

GENERAL CONDITIONS CONTRACT (GCC)		
S.NO	DESCRIPTION	PAGE NO.
A.	Contract and Interpretation	
	1. Definitions	1
	2. Contract Document	2
	3. Interpretation	3
	4. Notices	5
	5. Governing Low	5
	6. Settlement of Disputes	5
B.	Subject Matter of Contract	
	7. Scope of Facilities	7
	8. Time for Commencement and completion	10
	9. Implementing Partner's Responsibilities	10
	10. EESL's Responsibilities	10
C.	Payment	
	11. Contract Price	11
	12. Terms of Payment	11
	13. Securities	11
	14. Taxes and Duties	12
D.	Intellectual Property	
	15. Copyright	16
	16. Confidential Information	13

E.	Work Execution	14
	17. Representatives	15
	18. Work Program	16
	19. Subcontracting	16
	20. Design and Engineering	17
	21. Procurement	19
	22. Installation	21
	23. Test and Inspection	23
	24. Completion of the facilities	24
	25. Commissioning, Guarantee Test and Operational Acceptance	25
F.	Guarantees and Liabilities	25
	26. Completion Time and Guarantee	25
	27. Defect Liability	26
	28. Functional Guarantees	27
	29. Patent Indemnity	27
	30. Limitation of Liability	28
G.	Risk Distribution	28
	31. Transfer of Ownership	28
	32. Care of Facilities	28
	33. Loss of or Damage to property; Accident or Injury to Workers; Indemnification	29
		30

H.	34. Insurance	32
	35. Unforeseen Conditions	32
	36. Change in Law and Regulations	32
	37. Force Majeure	
	38. War Risks	33
	Change in Contract Elements	34
	39. Change in the Facilities	36
	40. Extension of Time for Completion	36
	41. Suspension	41
	42. Termination	41
	43. Assignment	41
	44. Bankruptcy	41
	45. Contractor Performance & Feedback and Evaluation System	
	46. Fraud Prevention Policy	

A. Contract and Interpretation

1. Definitions:

1.1 The following words and expressions shall have the meanings hereby assigned to them:

“Contract” means the Contract Agreement entered into between the EESL and the Implementing Partner, 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 EESL, New Delhi and includes the legal successors or permitted assigns of the EESL.

“Project Manager” means the person appointed by the EESL 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 EESL.

“Contractor or Implementing Partner or successful Contractor” means the person(s) whose bid to perform the Contract has been accepted by the EESL and is named as such in the Contract Agreement and includes the legal successors or permitted assigns of the Implementing Partner.

“Contractor or Implementing Partner’s Representative” means any person nominated by the Implementing Partner and approved by the EESL in the manner provided in GCC Sub- Clause 17.2 (Implementing Partner’s Representative and Construction Manager) hereof to perform the duties delegated by the Implementing Partner.

“Sub Contractor or Sub Implementing Partner,” 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 by the Contractor or Implementing Partner, 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 Implementing Partner under the Contract.

“Plant and Equipment” means permanent plant, equipment, machinery, apparatus, articles and things of all kinds to be provided and incorporated in the Facilities by the Implementing Partner under the Contract (including the spare parts to be supplied by the Implementing Partner under GCC Sub-Clause 7.3 here-of) but does not include Implementing Partner’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 Implementing Partner 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 Implementing Partner’s Equipment and the supply of all construction materials required), installation, testing, pre-commissioning, commissioning, operations, maintenance, the provision of operations and maintenance manuals, training of EESL's Personnel etc.

“Contractor or Implementing Partner’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 Implementing Partner, 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 or site of EESL’s client.

“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” 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 requirement specified in the Technical Specifications that are to be carried out by the Implementing Partner 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 Implementing Partner, 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 provisions of GCC Sub Clause 25.2 (Guarantee Test) hereof.

Operational Acceptance” means the acceptance by the EESL of the Facilities (or any part of the Facilities where the Contract provides for acceptance of the Facilities in parts), which certifies the Implementing Partner’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 Implementing Partner commencing at Completion of the Facilities or a part thereof, during which the Implementing Partner is responsible for defects with

respect to the Facilities (or the relevant part thereof) as provided in GCC Clause 27 (Defect Liability) hereof.

2. Contract Documents

2.1 Subject to Article 1.2 (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. The Contract shall be read as a whole.

2.2 The Contract will be signed in three originals and the Implementing Partner shall be provided with one signed original and the rest will be retained by the EESL.

2.3 The Implementing Partner shall provide free of cost to the EESL all the engineering data, drawing and descriptive materials submitted with the bid, in at least five (5) copies to form a part of the Contract immediately after Notification of Award/letter of Award.

2.4 Subsequent to signing of the Contract, the Implementing Partner at his own cost shall provide the EESL with at least five (05) true copies of Contract Agreement within thirty (30) days after signing of the Contract.

3. Interpretation

3.1 Language

3.1.1 Unless the Implementing Partner is a national of the EESL's country and the EESL and the Implementing Partner 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.

3.2 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.

3.5 Inco terms

Unless inconsistent with any provision of the Contract, the meaning of any trade term and the rights and obligations of parties there under shall be as prescribed by Incoterms.

Inco terms 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 EESL and the successful Contractor shall be as under:

- i.** First Contract: For Ex-works (India) supply of plant and equipment and accessories by Contractor including mandatory spares and spares to be supplied during warranty.
- ii.** Second Contract: for providing all services i.e. loading, inland/air/shipment transportation for delivery at site, inland/air/shipment 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 equipment's supplied under the 'First Contract' and all other services including civil works, if any, as specified in the Contract Documents including sales tax and duties as asked in price bid in section IV. It will also cover cost for Repair and Maintenance and equipment's and/or additional warranty, wherever asked for supplied under the 'First Contract' and all other services including civil works, if any, as specified in the Contract Documents. All items in second contract must be quoted including service tax.
- iii.** Third Contract: For providing all services including Awareness programme for public/stake holders/workshops/printing brochure and other materials, Survey cost, Monitoring and verification cost, scrap disposal cost, arrangement of office at both sites and Statuary agencies cost including service tax.

In case, value of second contract viz transportation, insurance is lower or the supply cost includes transportation, insurance etc than three contract may be merged in two contract.

Arbitration:

1. Appointing authority for Arbitrator: CEO, EESL.
2. The place of arbitration shall be: New Delhi

Prices are to be quoted as Firm during currency of contract. No price adjustment is allowed.

General:

1. In case of investment partner, A project manager is to be deputed from their side for co-coordinating activities.
2. Word Implementing Partner for any Project used in General Conditions of contract includes persons of Investment partner, executing and implementing agencies etc.
3. Notification of award means Letter of Intent and Letter of award

3.6.2 The award of separate Contracts shall not in any way dilute the responsibility of the Implementing Partner for the successful completion of the Scope of Work /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 EESL to terminate the other Contract(s) also at the risk and the cost of the Implementing Partner.

3.6.3 Set -Off Clause:

Contractor irrevocably and unequivocally agrees that breach in this Contract shall constitute (deemed to be) a breach in other contracts entered by the Contractor with EESL (regardless of the scope of work) which will confer a right on EESL ,among other rights available under the Contract or at law to terminate the other contracts at the risk and the cost of the contractor /Implementing Partner for the Project, for which awards have been made. For the avoidance of doubt, default in this Contract by the Contractor shall be a deemed default in other contract (awarded under separate RFPs) and EESL reserve the right to effectuate or avail all the remedies available under that contract.

3.7 Entire Agreement

Subject to GCC Sub-Clause 16.4 hereof, the Contract constitutes the entire agreement between the EESL and Implementing Partner 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 here to.

3.9 Independent Contractor or Implementing Partner

The Implementing Partner shall be an independent Implementing Partner performing the Contract. The Contract does not create any agency, partnership, joint venture or other joint relationship between the parties here to.

Subject to the provisions of the Contract, the Contractor or Implementing Partner shall be solely responsible for the manner in which the Contract is performed. All employees, representatives or Sub Contractor or Sub Implementing Partners engaged by the Implementing Partner in connection with the performance of the Contract shall be under the complete control of the Implementing Partner and shall at all times and for all purposes be deemed to be the employees of the Contractor and no relation of employer- employee or master-servant shall be understood to exist between the said manpower deployed or provided under this Agreement by the Contractor; and EESL, at any point in time. For the sake of clarity, employees of the Contractor and the Sub-Contractor of the Contractor in no case shall be treated as the employees of EESL at any point of time. Further nothing contained in the Contract or in any subcontract awarded by the Implementing Partner shall be construed to create any contractual relationship between any such employees, representatives or Subcontractor or Sub Implementing Partners and the EESL.

Contractor and Contractor's sub-contractors shall always abide by all existing labour enactment and rules made thereunder, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules) regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or Central Government or the local authority. Contractor shall keep EESL indemnified in case any action is taken against EESL If EESL is caused to pay or incur any cost or liability or expense as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/ Acts/Rules/regulations including amendments, if any, on the part of the

Contractor. EESL shall have the right to deduct any money due to the Contractor including the amount of performance security. EESL shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by EESL.

For the avoidance of doubt, Contractor shall indemnify EESL against any liability arising out of non-compliance of labour laws or any other law or any act of its employees during the deployment under this contract.

3.10 Joint Venture Agreement or Consortium

If the Implementing Partner is a joint venture or consortium of two or more firms, all such firms shall be jointly and severally bound to the EESL 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 written consent of the EESL.

EESL is not obligated to file its claim or initiate legal proceedings first against the Lead Contractor pursuant to the Joint Venture Agreement or Consortium. EESL as per its sole discretion; also reserve the right to initiate the legal proceeding against the non-lead Contractor (or against all the members) pursuant to the Joint Venture Agreement or Consortium.

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, cable, telegraph, telex, facsimile or Electronic Data Interchange (EDI) 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 cable, telegraph, facsimile or shall be confirmed within two (2) days after despatch by notice sent by airmail/ post or special courier, except as otherwise specified in the Contract.

4.1.2 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 conveyed to the postal authorities or courier service for transmission by airmail or special courier.

4.1.3 Any notice delivered personally or sent by telegraph; facsimile shall be deemed to have been delivered on date of its despatch.

4.1.4 Either party may change its postal, cable, telex, facsimile or EDI 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, instruction orders and certificates to be given under the Contract.

5. Governing Law

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 Following shall be the mechanism(s) for settlement of disputes:

6.2 Arbitration

In case the Contractor is a Public Sector Enterprise or a Government Department

In case the Contractor is a Public Sector Enterprise or a Government Department, the dispute shall be referred for resolution in Permanent Machinery for Arbitration (PMA) of the Department of Public Enterprise, Government of India. Such dispute or difference shall be referred by either party for Arbitration to the

sole Arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The award of the Arbitrator shall be binding upon the parties to the dispute, provided, however, any party aggrieved by such award may make a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary/Additional Secretary, when so authorized by the Law Secretary, whose decision shall bind the Parties finally and conclusively. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

In case the Contractor is not a Public Sector Enterprise or a Government Department

Any dispute or differences arising out of or touching this Agreement if not resolved amicably within 30 days of raising such dispute or difference and subject to cure period as provided in the Agreement; shall be referred to the Arbitration, of single arbitrator mutually agreed between the Parties. In case the parties fail to agree upon single arbitrator then, either of the party may approach a competent court for the appointment of the arbitrator in accordance with the provisions of the Arbitration and Conciliation Act, 1996 and any and all amendment thereunder. The decision of the arbitral tribunal shall be final and binding on the Parties. The arbitration shall be conducted in accordance with the provisions of the Arbitration & Conciliation Act, 1996 and any and all amendment thereunder. The language of arbitration shall be English, cost of arbitration shall be borne equally by the Parties and the venue of arbitration shall be Delhi, India. Notwithstanding any reference to the Arbitration herein,

Parties shall continue to perform their respective obligations under the Contract, except for the matter under dispute pursuant to Arbitration proceedings

B. Subject Matter of Contract

7. Scope of Facilities

7.1 Unless otherwise expressly limited in the Technical Specifications, the Implementing Partner's obligations cover the provision of all Plant and Equipment and the performance of all Installation Services required for the design, the manufacture (including procurement, quality assurance, construction, installation, associated civil works, Recommissioning 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; Implementing Partner'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 EESL, as set forth in Appendix 6 (Scope of Works and Supply by the EESL) to the Contract Agreement.

7.2 The Contractor or Implementing Partner 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 if asked and warranty spares included in the Contract, the Implementing Partner 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 EESL and the Implementing Partner, and the price of such if asked spare parts shall be that given in Price Schedule which shall be added to the Contract Price. The price of such spare parts shall include the purchase price there for and other costs and expenses (including the Implementing Partner's fees) relating to the supply of spare parts. The prices of spares covered under the Price Schedule shall be kept valid for a period as specified in SCC.

7.3.1 The Contractor / Implementing Partner agrees that the spare parts recommended by him for 3 years operation and quoted in price Schedule shall be supplied by him at the same terms and conditions as are otherwise applicable to this Contract. Further, the Implementing Partner 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 orders for the recommended spares have been placed with the Implementing Partner prior to commencement of manufacture of the main equipment.

- 7.3.1.3** The Implementing Partner will provide the EESL with the manufacturing drawings, catalogues, assembly drawings and any other document required by the EESL so as to enable the EESL to identify the recommended spares. Such details will be furnished to the EESL 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 EESL 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 Implementing Partner 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 Implementing Partner to the EESL 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 Implementing Partner, if the EESL further identifies certain items of spares, the Implementing Partner 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 EESL and placement of order for additional spares if the EESL 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 or Implementing Partner will provide the EESL with all the addresses and particulars of his sub-suppliers while placing the order on vendors for items/components/equipment covered under the Contract and will further ensure with his vendors that the EESL, 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 or Implementing Partner shall guarantee the long term availability of spares to the EESL for the full life of the equipment covered under the Contract. The Implementing Partner shall guarantee that before going out of production of spare parts of the equipment covered under the Contract, he shall give the EESL 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-Implementing Partners. Further, in case of discontinuance of manufacture of any spares by the Contractor and/or his Sub- Contractor or Implementing Partner, Implementing Partner will provide the EESL, two years in advance, with full manufacturing drawings, material specification and technical information

including information on alternative equivalent makes required by the EESL 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 EESL 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 Implementing Partner. Ex-works order price of future spares shall be computed in accordance with the price adjustment provisions covered under the main Contract excepting that the base indices will be counted from the scheduled date of Commissioning of the last equipment under the main project and there will be no ceiling on the amount of variation in the prices. The above option for procuring future recommended spares by the EESL shall remain valid for the period of 5 years from the date of Commissioning of the equipment.

7.3.1.10 The Implementing Partner will indicate in advance the delivery period of the items of spares, which the EESL 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 Implementing Partner fails to supply the mandatory, recommended or long-term spares in the terms stipulated above, the EESL shall be entitled to purchase the same from the alternate sources at the risk and the cost of the Implementing Partner and recover from the Implementing Partner, the excess amount paid by the EESL over the rates worked on the above basis. In the event of such risk purchase by the EESL, the purchases will be as per the Works and Procurement Policy of the EESL prevalent at the time of such purchases and the EESL at his option may include a representative from the Implementing Partner 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 Implementing Partner of any of his obligations under the provision of long term availability of 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 EESL. 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 EESL and at the mutually acceptable escalation formula.

7.3.1.13 The Implementing Partner 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 EESL 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. 'Commercial Operation' shall mean the conditions of operation in which the complete equipment covered under the Contract is officially declared by the EESL to be available for continuous operation at different loads up to and including rated capacity. Such declaration by the EESL, however, shall not relieve or prejudice the Implementing Partner any of his obligations under the Contract. In case of any failure in the original component/equipment's due to faulty designs, materials and workmanship, the corresponding spare parts, if any, supplied will be replaced without any extra cost to the EESL unless a joint examination and analysis by the EESL and the Implementing Partner 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 Implementing Partner as soon as they have been replaced by the Implementing Partner.
 - b) For the item of spares ordered or to be ordered by the EESL for 3 years operational requirement of the plant, which with the written approval of the EESL, are not manufactured as a continuous operation will be warranted for 7000 hrs of trouble-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.
 - c) For long term requirement

For item of spares that may be ordered by the EESL 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 12 months 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.

- (ii) The Defect Liability of spares covered in para (b) & (c) 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 Implementing Partner's standard recommended practice, if any, and the same has been furnished to the EESL.

8. Time for Commencement and Completion

- 8.1** The Implementing Partner shall commence work on the Facilities from the date of Notification of Award and without prejudice to GCC Sub-Clause 26.2 hereof, the Implementing Partner shall thereafter proceed with the Facilities in accordance with the time schedule specified in Appendix 4 (Time Schedule) to the Contract Agreement or / and as mentioned in special conditions of contract.
- 8.2** The Implementing Partner 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 Implementing Partner shall be entitled under GCC Clause 40 (Extension of Time for Completion) hereof.

9. Contractor or Implementing Partner's Responsibilities

- 9.1** The Contractor or Implementing Partner 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 or Implementing Partner confirms that it has entered into this Contract on the basis of a proper examination of the data relating to the Facilities (including any data as to boring tests if applicable) provided by the EESL, and on the basis of information that the Contractor or Implementing Partner 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 twenty-eight (28) days prior to bid submission. The Implementing Partner 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 Implementing Partner 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 or Implementing Partner's and Sub-Contractor or Implementing Partner's personnel and entry permits for all imported Implementing Partner's Equipment. The Implementing Partner shall acquire all other permits, approvals and/or licenses that are not the responsibility of the EESL under GCC Sub-Clause 10.3 hereof and that are necessary for the performance of the Contract.

9.4 The Implementing Partner 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 Implementing Partner. The Implementing Partner shall indemnify and hold harmless the EESL 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 Implementing Partner or its personnel, including the Contractor or Sub Implementing Partners 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. EESL's Responsibilities

- 10.1** The EESL shall ensure the accuracy of all information and/or data to be supplied by the EESL as described in Appendix 6 (Scope of Works and Supply by the EESL) to the Contract, except when otherwise expressly stated in the Contract.
- 10.2** The EESL 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 EESL) to the Contract Agreement. The EESL shall give full possession of and accord all rights of access thereto on or before the date(s) specified in Appendix 6.
- 10.3** The EESL 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 authorities or undertakings require the EESL to obtain them in the EESL's name, are necessary for the execution of the Contract (they include those required for the performance by both the Implementing Partner and the EESL of their respective obligations under the Contract), including those specified in Appendix 6 (Scope of Works and Supply by the EESL) to the Contract Agreement.
- 10.4** If requested by the Implementing Partner, the EESL shall use its best endeavours to assist the Implementing Partner 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 Implementing Partner or Subcontractor or Implementing Partners or the personnel of the Contractor or Implementing Partner or Sub Contractor or Implementing Partners, as the case may be, to obtain.

- 10.5** Unless otherwise specified in the Contract or agreed upon by the EESL and the Implementing Partner, the EESL 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 Implementing Partner 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 EESL) to the Contract Agreement at or before the time specified in the program furnished by the Contractor or Implementing Partner under GCC Sub- Clause 18.2 (Program of Performance) hereof and in the manner there-upon specified or as otherwise agreed upon by the EESL and the Contractor or Implementing Partner.
- 10.6** The EESL 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 EESL save those to be incurred by the Implementing Partner 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, if applicable. It will be mentioned in SCC.
- 11.3** Subject to GCC Sub-Clauses 9.2, 10.1 and 35 (Unforeseen Conditions) hereof, the Implementing Partner shall be deemed to have satisfied itself as to the hereof, correctness and sufficiency of the Contract Price, which shall, except as otherwise provided for in the Contract, cover all its obligations under the Contract.
- 11.4** If the payment of any amount under this Agreement is disputed (by EESL), then the entire undisputed element of that amount shall be paid and the said disputed

element shall be dealt with in accordance with the arbitration procedure set forth under the Agreement. EESL shall identify the specific cause of the disagreement.

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 EESL herein shall be deemed to constitute acceptance by the EESL of the Facilities or any part(s) thereof.

12.3 The currency or currencies in which payments are made to the Implementing Partner 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 Contract.

13. Securities

13.1 Issuance of Securities

The Implementing Partner shall provide the securities specified below in favour of the EESL at the times, and in the amount, manner and form specified below.

13.2 Advance Payment Security

13.2.1 The Implementing Partner shall, within twenty-eight (28) days of the notification of contract award, provide a security in an amount equal to the advance payment 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 a initial validity of up to ninety (90) days beyond the schedule date of Completion of the Facilities in accordance with GCC Clause 24. However, in case of delay in completion of facilities under the package, the validity of the security shall be extended by the period of such delay. 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

13.2.2 Advance Payment Security. The Advance payment Security shall be reduced prorate every three (3) months after First Running Account Bill/Stage Payment under the Contract based on the value of equipment/facilities received. The cumulative amount of reduction at any point of time shall not exceed seventy five percent (75%) of the advance corresponding to cumulative value of the respective equipment Facilities supplied and received as per a certificate issued by the Project Manager and the balance of 25% released after ninety (90) days beyond the Completion of those Facilities. It should be clearly understood that reduction in the value of security for advance shall not in any way dilute the Implementing Partner'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 Contract Performance Security

- 13.3.1** The Implementing Partner shall, within twenty-eight (28) days of the Notification of Award, provide securities for the due performance of the Contract for three percent (3%) of the Contract Price of all the Contracts, with an initial validity upto ninety (90) days beyond the end of scheduled Defect Liability Period of the last equipment covered under the package. If the EESL accepts to enters into 'Second Contract' and/or 'Third Contract' with the Assignee of a foreign Implementing Partner, pursuant to GCC Sub-Clause 3.6, the said Assignee, in addition to the Contract Performance Securities to be provided by the foreign Implementing Partner for three percent (3%) of the value of all the Contracts i.e. First Contract, Second Contract and Third Contract shall provide within twenty eight (28) days of the Notification of Award, separate Contract Performance Security(ies) equivalent to three percent (3%) of the value of Contract(s) entered into with the Assignee, for the due performance of Contract, with a intial validity up to ninety (90) days beyond the end of Scheduled Defect Liability period of the last equipment covered under the package. 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. Further, EESL reserves the right to terminate the Contract at the risk and cost, as applicable, of the Contractor in case Contractor has not submitted the Contract Performance Guarantee within the stipulated timelines. This right of termination shall be without prejudice to EESL's rights and remedies available in Contract or at law
- 13.3.2** The performance security shall be denominated in the currency or currencies of the Contract, or in a freely convertible currency acceptable to the EESL, 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 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 Implementing Partner shall issue an additional security in an amount proportionate to the Contract Price of that part. The security shall be returned to the Implementing Partner immediately after its expiration, provided, however, that if the Implementing Partner, 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.

14. Taxes and Duties

- 14.1** Except as otherwise specifically provided in the Contract, the Implementing Partner shall bear and pay all taxes, duties, levies and charges assessed on the Implementing Partner, its Sub Implementing Partners 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.
- 14.2** Notwithstanding GCC Sub-Clauses 14.1 above, the EESL shall bear and promptly reimburse all customs and import duties, if imposed in future, on the Plant and Equipment including Type Test and mandatory spares supplied from abroad and specified in Price Schedule (and on spare parts to be supplied from abroad and specified in Schedule, when awarded) and that are to be incorporated into the Facilities, by the law of the country where the Site is located. However, if the plant and equipment are shipped in Shipper's containers, then the custom duty levied on the cost of empty containers shall be borne and paid/reimbursed by the Implementing Partner. The EESL shall also bear and pay/reimburse to the Implementing Partner/ Assignee of Foreign Implementing Partner (if applicable) Sales Tax (but not the surcharge in lieu of Sales Tax), Local Tax including Entry Tax / Octroi (if applicable) in respect of direct transactions between the EESL and the Implementing Partner, if imposed on the Plant and Equipment including Type Test and Mandatory Spares manufactured within the EESL's country and specified in Price (and also on locally supplied spares quoted when awarded) to be incorporated in the Facilities, by the law of country where the site is located. For this purpose, the Ex-works price if quoted in foreign currency and so incorporated in the contract, shall be converted to Indian Rupees as per the TT buying exchange rates established by State Bank of India prevailing on the actual date of Ex-works (India) despatch.
- All taxes, duties and levies on works contract, if any, shall be to the Implementing Partner's account and no separate claim in this regard will be entertained by the EESL.
- 14.3** If any tax exemptions, reductions, allowances or privileges is available to the Implementing Partner in the country where the Site is located, the EESL shall use its best endeavours to enable the Implementing Partner 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 at the date seven (7) days prior to the last date of 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 de-creased, 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 Implementing Partner 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 there-from, as the case may be, in accordance with GCC Clause 36 (Change in Laws and Regulations) hereof. However, these adjustments would be restricted to direct transactions between the EESL and the Contractor/assignee of Foreign Implementing Partner (if applicable). These adjustments shall not be applicable on procurement of raw materials, intermediary components etc. by the Implementing Partner/ assignee and also not applicable on the bought out items despatched directly from sub-vendor's works to site.

D. Intellectual Property

15. Copyright

15.1 The copyright in all drawings, documents and other materials containing data and information furnished to the EESL by the Implementing Partner herein shall remain vested in the Implementing Partner or, if they are furnished to the EESL directly or through the Implementing Partner by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party. The EESL shall however be free to reproduce all drawings, documents and other material furnished to the EESL for the purpose of the contract including, if required, for operation and maintenance of the facilities.

16. Confidential Information

16.1 The EESL and the Implementing Partner 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 or Implementing Partner may furnish to its Sub-Contractor or Implementing Partner(s) such documents, data and other information it receives from the EESL to the extent required for the Sub Contractor or Implementing Partner(s) to perform its work under the Contract, in which event the Implementing Partner shall obtain from such Sub-Contractor or Implementing Partner(s) an undertaking of confidentiality similar to that imposed on the Implementing Partner under this GCC Clause 16.

16.2 The EESL shall not use such documents, data and other information received from the Implementing Partner for any purpose other than the operation and

maintenance of the Facilities. Similarly, the Implementing Partner shall not use such documents, data and other information received from the EESL 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.

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 what-ever 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 EESL shall appoint and notify the Implementing Partner in writing of the name of the Project Manager. The EESL 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 Implementing Partner without delay. The EESL 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 EESL 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 Implementing Partner to the EESL 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** If the Implementing Partner's Representative is not named in the Contract, then within fourteen (14) days of the Effective Date, the Implementing Partner shall appoint the Implementing Partner's Representative and shall request the EESL in writing to approve the person so appointed. If the EESL makes no objection to the appointment within fourteen (14) days, the Implementing Partner's Representative shall be deemed to have been approved. If the EESL objects to the appointment within fourteen (14) days giving the reason therefor, then the Implementing Partner 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 Implementing Partner's Representative shall represent and act for the Implementing Partner at all times during the currency of the Contract and shall give to the Project Manager all the Implementing Partner's notices, instructions, information and all other communications under the Contract.

All notices, instructions, information and all other communications given by the EESL or the Project Manager to the Implementing Partner under the Contract shall be given to the Implementing Partner's Representative or, in its absence, its deputy, except as herein otherwise provided.

The Implementing Partner shall not revoke the appointment of the Implementing Partner's Representative without the EESL's prior written consent, which shall not be unreasonably withheld. If the EESL consents thereto, the Implementing Partner shall appoint some other person as the Implementing Partner's Representative, pursuant to the procedure set out in GCC Sub-Clause 17.2.1

- 17.2.3** The Implementing Partner's Representative may, subject to the approval of the EESL (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 Implementing Partner'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 EESL and the Project Manager.

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 Implementing Partner'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 EESL and the Implementing Partner 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 Implementing Partner'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 Implementing Partner 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. When-ever 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 EESL may by notice to the Implementing Partner object to any representative or person employed by the Implementing Partner in the execution of the Contract who, in the reasonable opinion of the EESL, 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 EESL shall provide evidence of the same, whereupon the Implementing Partner shall remove such person from the Facilities.
- 17.2.6** If any representative or person employed by the Implementing Partner is removed in accordance with GCC Sub-Clause 17.2.5, the Contractor shall, where required, promptly appoint a replacement.

18. Work Program

18.1 Contractor or Implementing Partner's Organization

The Implementing Partner shall supply to the EESL and the Project Manager a chart showing the proposed organization to be established by the Implementing Partner 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 Implementing Partner shall promptly inform the EESL and the Project Manager in writing of any revision or alteration of such an organization chart.

18.2 Program of Performance

Within twenty-eight (28) days after the date of notification of award of Contract, the Implementing Partner 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 Implementing Partner reasonably requires that the EESL shall have

fulfilled its obligations under the Contract so as to enable the Implementing Partner 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 Implementing Partner 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 Implementing Partner 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 or Implementing Partner 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 Implementing Partner'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 Implementing Partner shall, at the request of the EESL 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 EESL and the Implementing Partner.

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 EESL and the Implementing Partner, the Implementing Partner 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.

18.6 Maintenance of Records of Weekly Progress Review meeting at Site

The Contractor shall be required to attend all weekly site progress review meetings organised by the 'Project Manager' or his authorised representative. The deliberations in the meetings shall interalia include the weekly program, progress of work (including details of manpower, tools & 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. The minutes of the weekly meetings shall be recorded in triplicate in a numbered register available with the Project Manager or his authorised representative. These 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 Sub Implementing Partners) to the Contract Agreement specifies major items of supply or services and a list of approved Sub-Implementing Partners against each item, including vendors. Insofar as no Sub Implementing Partners are listed against any such item, the Implementing Partner shall prepare a list of Sub-Implementing Partners for such item for inclusion in such list. The Implementing Partner may from time to time propose any addition to or deletion from any such list. The Implementing Partner shall submit any such list or any modification thereto to the EESL for its approval in sufficient time so as not to impede the progress of work on the Facilities. Such approval by the EESL for any of the Sub-Implementing Partners shall not relieve the Implementing Partner from any of its obligations, duties or responsibilities under the Contract.

19.2 The Implementing Partner shall select and employ its Sub-Implementing Partners 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 Sub-Implementing Partners) to the Contract Agreement, the Implementing Partner may employ such Sub-Implementing Partners as it may select, at its discretion.

20. Design and Engineering

20.1 Specifications and Drawings

20.1.1 The Implementing Partner 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 Implementing Partner 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 Implementing Partner by or on behalf of the EESL.

- 20.1.2** The Implementing Partner 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 EESL, 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 twenty-eight (28) days prior to date of bid submission shall apply unless otherwise specified. During Contract execution, any changes in such codes and standards shall be applied after approval by the EESL and shall be treated in accordance with GCC Clause 39 (Changes Originating from Implementing Partner).

20.3 Approval/Review of Technical Documents by Project Manager, wherever applicable

- 20.3.1** The Implementing Partner shall prepare (or cause its Sub-Implementing Partners 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 Project Manager shall either return one copy thereof to the Implementing Partner with its approval endorsed thereon or shall notify the Implementing Partner 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 Implementing Partner 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 Implementing Partner 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 Implementing Partner and their approval by the Project Manager shall be discussed and finalised with the Implementing Partner.

- 20.3.5** If any dispute or difference occurs between the EESL and the Implementing Partner 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 an Adjudicator for determination in accordance with GCC Sub-Clause 6.1 (Adjudicator) hereof. If such dispute or difference is referred to an Adjudicator, the Project Manager shall give instructions as to whether and if so, how, performance of the Contract is to proceed. The Implementing Partner shall proceed with the Contract in accordance with the Project Manager's instructions, provided that if the Adjudicator upholds the Implementing Partner's view on the dispute and if the EESL has not given notice under GCC Sub-Clause 6.1.2 hereof, then the Implementing Partner shall be reimbursed by the EESL 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 Adjudicator 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 Implementing Partner, shall not relieve the Implementing Partner 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 Implementing Partner shall not depart from any approved document unless the Implementing Partner 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.
- 20.3.8** If the Project Manager requests any change in any already 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 Implementing Partner shall manufacture or procure and transport all the Plant and Equipment in an expeditious and orderly manner to the Site.

21.2 EESL-Supplied Plant, Equipment, and Material

If Appendix 6 (Scope of Works and Supply by the EESL) to the Contract Agreement provides that the EESL shall furnish any specific items of machinery, equipment or materials to the Implementing Partner, the following provisions shall apply:

- 21.2.1** The EESL 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 Implementing Partner at the time specified in the program furnished by the Implementing Partner, pursuant to GCC Sub-Clause 18.2 (Program of Performance), unless otherwise mutually agreed.
- 21.2.2** Upon receipt of such item, the Implementing Partner shall inspect the same visually and notify the Project Manager of any detected shortage, defect or default. The EESL shall immediately remedy any shortage, defect or default, or the Implementing Partner shall, if practicable and possible, at the request of the EESL, remedy such shortage, defect or default at the EESL's cost and expense. After inspection, such item shall fall under the care, custody and control of the Implementing Partner. The provision of this GCC Sub-Clause 21.2.2 shall apply to any item supplied to remedy any such shortage or default 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 Implementing Partner and its obligations of care, custody and control shall not relieve the EESL of liability for any undetected shortage, defect or default, nor place the Implementing Partner 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 Implementing Partner shall at its own risk and expense transport all the Plant and Equipment and the Implementing Partner's Equipment to the Site by the mode of transport that the Implementing Partner 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 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) 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 Implementing Partner shall be entitled to select any safe mode of transport operated by any person to carry the Plant and Equipment and the Implementing Partner's Equipment.
- 21.3.3** Upon despatch of each shipment of the Plant and Equipment and the Implementing Partner's Equipment, the Implementing Partner shall notify the EESL by telex, cable, facsimile or Electronic Data Interchange (EDI) of the description of the Plant and Equipment and of the Implementing Partner'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 Implementing Partner shall furnish the EESL with relevant shipping documents to be agreed upon between the parties.
- 21.3.4** The Implementing Partner shall be responsible for obtaining, if necessary, approvals from the authorities for transportation of the Plant and Equipment and the Implementing Partner's Equipment to the Site. The EESL shall use its best endeavors in a timely and expeditious manner to assist the Implementing Partner in obtaining such approvals, if requested by the Implementing Partner. The Implementing Partner shall indemnify and hold harmless the EESL 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 Implementing Partner's Equipment to the Site.

21.4 Customs Clearance

The Implementing Partner shall, at its own expense, handle all imported Plant and Equipment and Implementing Partner's Equipment at the point(s) of import and shall handle any formalities for customs clearance, subject to the EESL's obligations under GCC Sub-Clause 14.2, provided that if applicable laws or regulations require any application or act to be made by or in the name of the EESL, the EESL shall take all necessary steps to comply with such laws or regulations. In the event of delays in customs clearance due to fault of the EESL, the Implementing Partner shall be entitled to an extension in the Time for Completion, pursuant to GCC Clause 40.

22. Installation

22.1 Setting Out/Supervision/Labour

- 22.1.1** Benchmark: The Implementing Partner 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 EESL.

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 Implementing

Partner 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 EESL, the expense of rectifying the same shall be borne by the EESL.

22.1.2 Implementing Partner's Supervision: The Implementing Partner shall give or provide 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 Implementing Partner 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 Implementing Partner shall provide and employ on the Site in the installation of the Facilities such skilled, semi-skilled and unskilled labor as is necessary for the proper and timely execution of the Contract. The Implementing Partner is encouraged to use local labor that has the necessary skills.
- (b) Unless otherwise provided in the Contract, the Implementing Partner shall be responsible for the recruitment, transportation, accommodation and catering of all labor, local or expatriate, required for the execution of the Contract and for all payments in connection therewith.
- (c) The Implementing Partner shall be responsible for obtaining all necessary permit(s) and/or visa(s) from the appropriate authorities for the entry of all labor and personnel to be employed on the Site into the country where the Site is located.
- (d) The Implementing Partner shall at its own expense provide the means of repatriation to all of its and its Sub-Implementing Partner'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 Implementing Partner defaults in providing such means of transportation and temporary maintenance, the EESL may provide the same to such personnel and recover the cost of doing so from the Implementing Partner.
- (e) The Implementing Partner shall at all times during the progress of the Contract use its best endeavours to prevent any unlawful, riotous or disorderly conduct or behaviour by or amongst its employees and the labor of its Sub-Implementing Partners.

- (f) The Implementing Partner shall, in all dealings with its labor and the labor of its Sub-Implementing Partners 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 labor.

22.2 Contractors Implementing Partner's Equipment

- 22.2.1** All Contractors or Implementing Partners' Equipment brought by the Implementing Partner onto the Site shall be deemed to be intended to be used exclusively for the execution of the Contract. The Implementing Partner shall not remove the same from the Site without the Project Manager's consent that such Implementing Partner'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 Implementing Partner shall remove from the Site all Equipment brought by the Implementing Partner onto the Site and any surplus materials remaining thereon.
- 22.2.3** The EESL will, if requested, use its best endeavours to assist the Implementing Partner in obtaining any local, state or national government permission required by the Implementing Partner for the export of the Implementing Partner's Equipment imported by the Implementing Partner 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

The EESL and the Implementing Partner 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 Implementing Partner shall prepare and submit to the EESL, with a copy to the Project Manager, proposed Site regulations for the EESL'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, gate control, sanitation, medical care, and fire prevention.

22.4 Opportunities for Other Implementing Partners

- 22.4.1** The Implementing Partner shall, upon written request from the EESL or the Project Manager, give all reasonable opportunities for carrying out the work to any other Implementing Partners employed by the EESL on or near the Site.
- 22.4.2** If the Implementing Partner, upon written request from the EESL or the Project Manager, makes available to other Implementing Partners any roads or ways the maintenance for which the Implementing Partner is responsible, permits the use by such other Implementing Partners of the Implementing Partner's Equipment,

or provides any other service of whatsoever nature for such other Implementing Partners, the EESL shall fully compensate the Implementing Partner for any loss or damage caused or occasioned by such other Implementing Partners in respect of any such use or service, and shall pay to the Implementing Partner reasonable remuneration for the use of such equipment or the provision of such services.

22.4.3 The Implementing Partner shall also so arrange to perform its work as to minimize, to the extent possible, interference with the work of other Implementing Partners. The Project Manager shall determine the resolution of any difference or conflict that may arise between the Implementing Partner and other Implementing Partners and the workers of the EESL in regard to their work.

22.4.4 The Implementing Partner shall notify the Project Manager promptly of any defects in the other Implementing Partners' work that come to its notice, and that could affect the Implementing Partner'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 Implementing Partner.

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 Implementing Partner shall immediately carry out such work.

If the Implementing Partner is unable or unwilling to do such work immediately, the EESL may do or cause such work to be done as the EESL may determine is necessary in order to prevent damage to the Facilities. In such event the EESL shall, as soon as practicable after the occurrence of any such emergency, notify the Implementing Partner in writing of such emergency, the work done and the reasons therefor. If the work done or caused to be done by the EESL is work that the Implementing Partner was liable to do at its own expense under the Contract, the reasonable costs incurred by the EESL in connection therewith shall be paid by the Implementing Partner to the EESL. Otherwise, the cost of such remedial work shall be borne by the EESL.

22.6 Site Clearance

22.6.1 Site Clearance in Course of Performance: In the course of carrying out the Contract, the Implementing Partner 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 Implementing Partner'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 Implementing Partner 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.

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, Excise 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. Harmful scrap shall be disposed as per environmental statutory or other guidelines at contractor or implementing partner own cost.

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 Bond shall be furnished by Contractor as per proforma enclosed in Section-VII (Forms and Procedure) as Form No. 14. 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.

However, scrap generated in say replacement of pumps (i.e. old pumps as scrap) or any other scrap which is owned by EESL as per contract agreement, the same shall be disposed by EESL and EESL will get the payment. Contractor or Implementing Partner will co-ordinate with EESL and the agency picking up the scrap, for scrap disposal.

22.7 Watching and Lighting

The Implementing Partner 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.

22.8 Work at Night and on Holidays

- 22.8.1** Unless otherwise provided in the Contract, no work shall be carried out during the night and on public holidays of the country where the Site is located without prior written consent of the EESL, except where work is necessary or required to ensure safety of the Facilities or for the protection of life, or to prevent loss or damage to property, when the Implementing Partner shall immediately advise the Project Manager, provided that provisions of this GCC Sub-Clause 22.8.1 shall not apply to any work which is customarily carried out by rotary or double-shifts.
- 22.8.2** Notwithstanding GCC Sub-Clauses 22.8.1 or 22.1.3, if and when the Implementing Partner considers it necessary to carry out work at night or on public holidays so as to meet the Time for Completion and requests the EESL's consent thereto, the EESL shall not unreasonably withhold such consent.

23. Test and Inspection

- 23.1** The Implementing Partner 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 EESL and the Project Manager or their designated representatives shall be entitled to attend the aforesaid test and/or inspection, provided that the EESL shall bear all costs and expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses.
- 23.3** Whenever the Implementing Partner is ready to carry out any such test and/or inspection, the Implementing Partner shall give a reasonable advance notice of such test and/or inspection and of the place and time thereof to the Project Manager. The Implementing Partner shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the EESL and the Project Manager (or their designated representatives) to attend the test and/or inspection.
- 23.4** The Implementing Partner shall provide the Project Manager with a certified report of the results of any such test and/or inspection.

If the EESL 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 Implementing Partner 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 Implementing Partner to carry out any test and/or inspection not required by the Contract, provided that the Implementing Partner'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 Implementing Partner's performance of its other obligations under the Contract, due allowance will be made in 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 Implementing Partner 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 Adjudicator for determination in accordance with GCC Sub-Clause 6.1 (Adjudicator).
- 23.8** The Implementing Partner shall afford the EESL and the Project Manager, at the EESL'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 Implementing Partner a reasonable prior notice.
- 23.9** The Implementing Partner 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 EESL or the Project Manager, nor the issue of any test certificate pursuant to GCC Sub-Clause 23.4, shall release the Implementing Partner 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 Implementing Partner carrying out any test and/or inspection required under the Contract. The Implementing Partner 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 Implementing Partner 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.
- 23.12** 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 EESL, and the Time for Completion shall be reasonably adjusted to the extent that the Implementing Partner 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 the Facilities or any part thereof has, in the opinion of the Implementing Partner, been completed operationally and structurally and put in a tight and clean condition as specified in the Technical Specifications, excluding minor items not materially affecting the operation or safety of the Facilities, the Implementing Partner shall so notify the EESL in writing.

24.2 Within seven (7) days after receipt of the notice from the Implementing Partner under GCC Sub-Clause 24.1, the EESL shall supply the operating and maintenance personnel specified in Appendix 6 (Scope of Works and Supply by the EESL) to the Contract Agreement, required for Pre-commissioning of the Facilities or any part thereof.

Unless otherwise specified in the Technical Specifications, the EESL shall also provide, within the said seven (7) day period, the raw materials, utilities, lubricants, chemicals, catalysts, facilities, services and other matters 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 EESL 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 EESL)/ Technical Specifications, have been provided by the EESL in accordance with GCC Sub-Clause 24.2, the Implementing Partner 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 Implementing Partner, the Facilities or any part thereof is ready for Commissioning, the Implementing Partner shall commence Commissioning as per procedures stipulated in Technical Specifications, and as soon as Commissioning is satisfactorily completed, the Implementing Partner shall so notify the Project Manager in writing.

24.5 The Project Manager shall, within fourteen (14) days after receipt of the Implementing Partner'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 Implementing Partner's notice under GCC Sub-Clause 24.4, or notify the Implementing Partner in writing of any defects and/or deficiencies.

If the Project Manager notifies the Implementing Partner of any defects and/or deficiencies, the Implementing Partner 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 Implementing Partner's repeated notice, issue a Completion Certificate stating that the Facilities or that part thereof have reached Completion as at the date of the Implementing Partner's repeated notice.

If the Project Manager is not so satisfied, then it shall notify the Implementing Partner in writing of any defects and/or deficiencies within seven (7) days after receipt of the Implementing Partner'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 Implementing Partner of any defects and/or deficiencies within fourteen (14) days after receipt of the Implementing Partner's notice under GCC Sub-Clause 24.4 or within seven (7) days after receipt of the Implementing Partner's repeated notice under GCC Sub-Clause 24.5, or if the EESL 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 Implementing Partner's notice or repeated notice, or as of the EESL's use of the Facilities, as the case may be.

24.7 As soon as possible after Completion, the Implementing Partner shall complete all outstanding minor items so that the Facilities are fully in accordance with the requirements of the Contract, failing which the EESL will undertake such completion and deduct the costs thereof from any monies owing to the Implementing Partner.

24.8 Upon Completion, the EESL 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 Test and Operational Acceptance

25.1 Commissioning

25.1.1 Commissioning of the Facilities or any part thereof shall be completed by the Implementing Partner as per procedures detailed in the Technical Specifications. The EESL shall, unless otherwise specified in Appendix 6 (Scope of Works and Supply by the EESL)/ 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 (wherever applicable)

- 25.2.1** The Guarantee Test (and repeats thereof) shall be conducted by the Implementing Partner after Commissioning of the Facilities 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 Implementing Partner's and Project Manager's advisory personnel shall attend the Guarantee Test. The EESL shall promptly provide the Implementing Partner with such information as the Implementing Partner may reasonably require in relation to the conduct and results of the Guarantee Test (and any repeats thereof).
- 25.2.2** If for reasons not attributable to the Implementing Partner, the Guarantee Test of the Facilities or the relevant part thereof cannot be successfully completed within the period from the date of Completion specified in the SCC or any other period agreed upon by the EESL and the Implementing Partner, the Implementing Partner shall be deemed to have fulfilled its obligations with respect to the Functional Guarantees, and GCC Sub-Clauses 28.2 and 28.3 shall not apply.

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
- (a) the Guarantee Test has been successfully completed and the Functional Guarantees are met; or
 - (b) the Guarantee Test has not been successfully completed or has not been carried out for reasons not attributable to the Implementing Partner within the period from the date of Completion specified in the SCC or any other agreed upon period as specified in GCC Sub-Clause 25.2.2 above, but successful Completion of the Facilities has been achieved; or
 - (c) the Implementing Partner has paid the liquidated damages specified in GCC Sub-Clause 28.3 hereof; and
 - (d) any minor items mentioned in GCC Sub-Clause 24.7 hereof relevant to the Facilities or that part thereof have been completed.
- 25.3.2** At any time after any of the events set out in GCC Sub-Clause 25.3.1 have occurred, the Implementing Partner 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 EESL 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 EESL, and within forty five (45) days after receipt of the Implementing Partner's notice, issue an Operational Acceptance Certificate.
- 25.3.4** If within forty five (45) days after receipt of the Implementing Partner's notice, the Project Manager fails to issue the Operational Acceptance Certificate or fails to inform the Implementing Partner 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 Implementing Partner'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 Implementing Partner shall thereafter complete any outstanding minor items that are listed in the Operational Acceptance Certificate.

F. Guarantees and Liabilities

26. Completion Time Guarantee

- 26.1** The Implementing Partner 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 Implementing Partners shall be entitled under GCC Clause 40 (Extension of Time for Completion) hereof.
- 26.2** If the Implementing Partner 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 Implementing Partner shall pay to the EESL 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 EESL may consider termination of the Contract, pursuant to GCC Sub-Clause 42.2.2.

Such payment shall completely satisfy the Implementing Partner'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 Implementing Partner shall have no further liability whatsoever to the EESL in respect thereof.

However, the payment of liquidated damages shall not in any way relieve the Implementing Partner from any of its obligations to complete the Facilities or from any other obligations and liabilities of the Implementing Partner under the Contract.

Save for liquidated damages payable under this GCC Sub-Clause 26.2, the failure by the Implementing Partner 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 Implementing Partner liable for any loss or damage thereby suffered by the EESL.

27. Defect Liability (which may also be referred as 'Warranty' mentioned elsewhere in the document)

27.1 The Implementing Partner 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 Implementing Partner, the Implementing Partner shall promptly, in consultation and agreement with the EESL regarding appropriate remedying of the defects, and at its cost, repair, replace or otherwise make good (as the Implementing Partner shall, at its discretion, determine) such defect as well as any damage to the Facilities caused by such defect. The Implementing Partner 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 following causes:

- (a) improper operation or maintenance of the Facilities by the EESL
- (b) operation of the Facilities outside specifications provided in the Contract.
- (c) Normal wear and tear.

27.3 The Implementing Partner's obligations under this GCC Clause 27 shall not apply to

- a) any materials that are supplied by the EESL under GCC Sub- Clause 21.2 (EESL-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 EESL or any matters for which the Implementing Partner has disclaimed responsibility herein.
- c) any other materials supplied or any other work executed by or on behalf of the EESL, except for the work executed by the EESL under GCC Sub-Clause 27.7.

27.4 The EESL shall give the Implementing Partner a notice stating the nature of any such defect together with all available evidence thereof, promptly following the discovery thereof. The EESL shall afford all reasonable opportunity for the Implementing Partner to inspect any such defect.

27.5 The EESL shall afford the Implementing Partner all necessary access to the Facilities and the Site to enable the Implementing Partner to perform its obligations under this GCC Clause 27.

The Implementing Partner may, with the consent of the EESL, 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 EESL may give to the Implementing Partner a notice requiring that tests of the defective part of the Facilities shall be made by the Implementing Partner immediately upon completion of such remedial work, whereupon the Implementing Partner shall carry out such tests.

If such part fails the tests, the Implementing Partner 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 EESL and the Implementing Partner for the original equipment/part of the Facilities.

27.7 If the Implementing Partner 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 EESL may, following notice to the Implementing Partner, proceed to

do such work, and the reasonable costs incurred by the EESL in connection therewith shall be paid to the EESL by the Implementing Partner or may be deducted by the EESL from any monies due to the Implementing Partner or claimed under the Performance Security. After due assessment EESL shall specify the reasonable time in writing to remedy such defect or any damage to the Facilities caused by such defect which shall be more than 15 days.

- 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 EESL 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 of twelve (12) month from the time such replacement/ repair of the Facilities or any part thereof.
- 27.9** Except as provided in GCC Clauses 27 and 33 (Loss of or Damage to Property / Accident or Injury to Workers/Indemnification), the Implementing Partner 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 Implementing Partner.
- 27.10** In addition, the Implementing Partner 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

- 28.1** The Implementing Partner 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 Implementing Partner, 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 Implementing Partner 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 Implementing Partner shall notify the EESL upon completion of the necessary changes, modifications and/or additions, and shall seek the EESL's consent to repeat the Guarantee Test. If the specified

Functional Guarantees are not established even during the repeat of the Guarantee Test, the EESL 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 EESL 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 Appendix-8 (Functional Guarantees) to the Contract Agreement, shall completely satisfy the Implementing Partner's guarantees under GCC Sub-Clause 28.2, and the Implementing Partner shall have no further liability whatsoever to the EESL in respect thereof. Upon the payment of such liquidated damages by the Implementing Partner, 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. Indemnity for Infringement of Intellectual Property and General Indemnity

Patent Indemnity:

29.1 The Implementing Partner shall, subject to the EESL's compliance with GCC Sub-Clause 29.3, indemnify and hold harmless the EESL 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 EESL 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 Implementing Partner 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 not supplied by the Implementing Partner, pursuant to the Contract Agreement.

29.2 General Indemnity:

Contractor agrees to indemnify and keep indemnified, defend and hold harmless EESL and its officers, directors, employees, representatives and agents from and against any and all losses, liabilities, claims, damages, obligations, litigations, suits, actions, judgements, costs, expenses and / or otherwise including but not limited to those from third parties or liabilities of any kind howsoever suffered or claimed against EESL, (including, without limitation, reasonable attorneys' fees), awarded by court of law or other competent governmental authority or arbitral tribunal or tribunal of competent jurisdiction arising before, during or after completion of services or deliverable (scope of work), which result from, arise in connection with or are related in any way of actions or claims initiated or preferred by third parties or statutory / regulatory authorities, arising out of or in connection with and not limited to:

- i. The Contractor's breach of the representations and warranties specified in this Contract;
- ii. Acts or omissions of, negligence, or misconduct by the Contractor; or
- iii. The fault or negligence of the Contractor, its officers, employees, agents, subcontractors and/or representations resulting in loss or damage or injury to property or assets or injury to persons or death;
- iv. Use of server, machine, equipment or other hardware or Materials or Program and other hardware and software systems, provided by the Contractor directly and/or indirectly and includes non-compatibility of software or hardware in any manner;
- v. Defective supplies or servers or other machine parts or materials or program not replaced as contemplated in this Contract;

29.3 If any proceedings are brought or any claim is made against the EESL arising out of the matters referred to in GCC Sub-Clause 29.1 or 29.2, the EESL shall promptly give the Implementing Partner a notice thereof, and the Implementing Partner may at its own expense and in the EESL's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

If the Implementing Partner fails to notify the EESL within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the EESL shall be free to conduct the same on its own behalf. Unless the Implementing Partner has so failed to notify the EESL within the twenty-eight (28)

day period, the EESL shall make no admission that may be prejudicial to the defence of any such proceedings or claim.

The EESL shall, at the Implementing Partner's request, afford all available assistance to the Implementing Partner in conducting such proceedings or claim, and shall be reimbursed by the Implementing Partner for all reasonable expenses incurred in so doing.

30. Limitation of Liability

30.1 Except in cases of criminal negligence or wilful misconduct or fraud or any criminal misappropriation,

- a) the Implementing Partner shall not be liable to the EESL, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, or , loss of production, provided that this exclusion shall not apply to any obligation of the Implementing Partner to pay Liquidated Damages to the EESL and
- b) the aggregate liability of the Implementing Partner to the EESL, 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 Implementing Partner to indemnify the EESL with respect to patent infringement or general indemnity or as specified in SCC.

G. Risk Distribution

31. Transfer of Ownership

31.1 Ownership of the Plant and Equipment (including spare parts) procured in the country where the Site is located shall be transferred to the EESL when the Plant and Equipment are reached at site.

31.2 Ownership of the Implementing Partner's Equipment used by the Implementing Partner and its Sub-Implementing Partners in connection with the Contract shall remain with the Implementing Partner or its Sub-Implementing Partners.

31.3 Ownership of any Plant and Equipment in excess of the requirements for the Facilities shall revert to the Implementing Partner upon Completion of the Facilities or at such earlier time when the EESL and the Implementing Partner 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 EESL whether or not incorporated in the Facilities.

31.4 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, Excise 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 Bond shall be furnished by contractor as per proforma enclosed in Section-VII (Forms and Procedure) as Form No. 14. 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.

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 Implementing Partner 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.

31.5In case of two/three Contracts entered into between the EESL and the Implementing Partner as per GCC Sub-Clause 3.6 or where the EESL hands over his equipment to the Implementing Partner for executing the Contract, then the Implementing Partner 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 Bond in favour of the EESL in the form acceptable to EESL 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 bond. The EESL shall also issue a separate Authorisation Letter to the Implementing Partner to enable him to take physical delivery of plant, equipment and materials from the EESL.

32. Care of Facilities

32.1The Implementing Partner 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 Implementing Partner shall also be responsible for any loss or damage to the Facilities caused by the Implementing Partner or its Sub-Implementing Partners in the course of any work carried out, pursuant to GCC Clause 27 (Defect Liability). Notwithstanding the foregoing, the Implementing Partner 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 Implementing Partner'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 Implementing Partner 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 EESL or any third party (other than a Sub-Implementing Partner) authorized by the EESL 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 EESL, or any such matter for which the Implementing Partner has disclaimed responsibility herein,

the EESL shall pay to the Implementing Partner all sums payable in respect of the Facilities executed, notwithstanding that the same be lost, destroyed or damaged, and will pay to the Implementing Partner the replacement value of all temporary facilities and all parts thereof lost, destroyed or damaged. If the EESL requests the Implementing Partner in writing to make good any loss or damage to the Facilities thereby occasioned, the Implementing Partner shall make good the same at the cost of the EESL in accordance with GCC Clause 39 (Change in the Facilities). If the EESL does not request the Implementing Partner in writing to make good any loss or damage to the Facilities thereby occasioned, the EESL 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 EESL shall terminate the Contract pursuant to GCC Sub-Clause

42.1 (Termination for EESL's Convenience) hereof, except that the Implementing Partner 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 Implementing Partner shall be liable for any loss of or damage to any Implementing Partner's Equipment, or any other property of the Implementing Partner 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 Implementing Partner'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 Implementing Partner'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 Implementing Partner shall indemnify and hold harmless the EESL 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 Implementing Partner or its Sub-Implementing Partners, or their employees, officers or agents, except any injury, death or property damage caused by the negligence of the EESL, its Implementing Partners, employees, officers or agents.

33.2 If any proceedings are brought or any claim is made against the EESL that might subject the Implementing Partner to liability under GCC Sub-Clause 33.1, the EESL shall promptly give the Implementing Partner a notice thereof and the Implementing Partner may at its own expense and in the EESL's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

33.3 If the Implementing Partner fails to notify the EESL within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the EESL shall be free to conduct the same on its own behalf. Unless the Implementing Partner has so failed to notify the EESL within the twenty-eight (28) day period, the EESL shall make no admission that may be prejudicial to the defense of any such proceedings or claim.

The EESL shall, at the Implementing Partner's request, afford all available assistance to the Implementing Partner in conducting such proceedings or claim, and shall be reimbursed by the Implementing Partner for all reasonable expenses incurred in so doing.

33.4 The EESL shall indemnify and hold harmless the Implementing Partner and its employees, officers and SubImplementing Partners from any liability for loss of or damage to property of the EESL, 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 Implementing Partner.

33.5 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 Implementing Partner 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 EESL, who should not Unreasonably withhold such approval.

a) Cargo Insurance During Transport

Covering loss or damage occurring while in transit from the Implementing Partner's or Sub-Implementing Partner's works or stores until arrival at the Site, to the Plant and Equipment (including spare parts therefor) and to the Implementing Partner'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 an extended maintenance coverage for the Implementing Partner's liability in respect of any loss or damage occurring during the Defect Liability Period while the Implementing Partner 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 EESL'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 Implementing Partner or its Sub-Implementing Partners (whether or not owned by them) in connection 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) EESL'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 EESL shall be named as co-insured under all insurance policies taken out by the Implementing Partner pursuant to GCC Sub-Clause 34.1, except for the Third Party Liability, Workers' Compensation and EESL's Liability Insurances, and the Implementing Partner's Sub-Implementing Partners shall be named as co-insured's under all insurance policies taken out by the Implementing Partner pursuant to GCC Sub-Clause 34.1 except for the Cargo Insurance During Transport, Workers' Compensation and EESL's Liability Insurances. All insurers' rights of subrogation against such co-insured's for losses or claims arising out of the performance of the Contract shall be waived under such policies.

34.3 The Implementing Partner shall, in accordance with the provisions of Appendix 3 (Insurance Requirements) to the Contract Agreement, deliver to the EESL 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 EESL by insurers prior to cancellation or material modification of a policy.

34.4 The Implementing Partner shall ensure that, where applicable, its Sub-Implementing Partner(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 Sub-Implementing Partners are covered by the policies taken out by the Implementing Partner.

34.5 The EESL 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 Implementing Partner fails to take out and/or maintain in effect the insurances referred to in GCC Sub-Clause 34.1, the EESL may take out and maintain in effect any such insurances and may from time to time deduct from any amount due the Implementing Partner under the Contract any premium that the EESL shall have paid to the insurer, or may otherwise recover such amount as a debt due from the Implementing Partner. If the EESL fails to take out and/or maintain in effect the insurances referred to in GCC 34.5, the Implementing Partner may take out and maintain in effect any such insurances and may from time to time deduct from any amount due the EESL under the Contract any premium that the Implementing Partner shall have paid to the insurer, or may otherwise recover such amount as a debt due from the EESL. If the Implementing Partner fails to or is unable to take out and maintain in effect any such insurances, the Implementing Partner shall nevertheless have no liability or responsibility towards the EESL, and the Implementing Partner shall have full recourse against the EESL for any and all liabilities of the EESL herein.

34.7 Unless otherwise provided in the Contract, the Implementing Partner 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 Implementing Partner as per the procedure outlined in GCC Sub-Clause 34.8 below. The EESL shall give to the Implementing Partner all such reasonable assistance as may be required by the Implementing Partner. With respect to insurance claims in which the EESL's interest is involved, the Implementing Partner shall not give any release or make any compromise with the insurer without the prior written consent of the EESL. With respect to insurance claims in which the Implementing Partner's interest is involved, the EESL shall not give any release or make any compromise with the insurer without the prior written consent of the Implementing Partner.

34.8

- i. wherever total damages/loss of equipment/material, would occur, the Implementing Partner will be entitled to payment of all payments received from the underwriters except the following amounts:
- a) The amount paid to the Implementing Partner 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) Custom Duties and other taxes and duties which have already been paid by the EESL.

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 EESL and the

Implementing Partner will forth-with pay the EESL 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 Implementing Partner upon rectification of the damaged equipment to the satisfaction of the EESL 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 Implementing Partner 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 Implementing Partner on the basis of reasonable examination of the data relating to the Facilities (including any data as to boring tests) provided by the EESL, 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 Implementing Partner 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 encountered, the Implementing Partner shall promptly, and before performing additional work or using additional Plant and Equipment or Implementing Partner'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 Implementing Partner's Equipment required, including the steps which the Implementing Partner 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 Implementing Partner is likely to incur.

On receiving any notice from the Implementing Partner under this GCC Sub-Clause 35.1, the Project Manager shall promptly consult with the EESL and Implementing Partner 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 Implementing Partner, with a copy to the EESL, of the actions to be taken.

35.2 Any reasonable additional cost and expense incurred by the Implementing Partner 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 EESL to the Implementing Partner as an addition to the Contract Price.

35.3 If the Implementing Partner 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 date of 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 Implementing Partner 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 Implementing Partner has thereby been affected in the performance of any of its obligations under the Contract. However, these adjustments would be restricted to direct transactions between the EESL and the Implementing Partner/ Assignee of Foreign Implementing Partner (if applicable). These adjustment shall not be applicable on procurement of raw materials, intermediary components etc. by the Implementing Partner/ Assignee of Foreign Implementing Partner and shall also not be applicable on bought out items despatched directly from sub-vendor works to site. Further, no adjustment of the Contract Price and/or payment or reimbursement of taxes, duties or levies shall be made on account of variation in or withdrawal of Deemed Export benefits. 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

37.1 "Force Majeure" shall mean any event beyond the reasonable control of the EESL or of the Implementing Partner, 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 EESL to make payments to the Implementing Partner 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

- 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 Implementing Partner 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 EESL 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 EESL shall indemnify and hold the Implementing Partner 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 Implementing Partner's Equipment or any other property of the Implementing Partner used or intended to be used for the purposes of the Facilities shall sustain destruction or damage by reason of any War Risks, the EESL shall pay the Implementing Partner 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 EESL)
- b) replacing or making good any Implementing Partner's Equipment or other property of the Implementing Partner so destroyed or damaged so far as may be required by the EESL, 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 EESL does not require the Implementing Partner to replace or make good any such destruction or damage to the Facilities, the EESL 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 EESL's Convenience).

38.4 Notwithstanding anything contained in the Contract, the EESL shall pay the Implementing Partner 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 Implementing Partner shall as soon as practicable notify the EESL 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 Implementing Partner, the Implementing Partner shall use its reasonable efforts to execute the Contract with due and proper consideration given to the safety of its and its Sub-Implementing Partners' personnel engaged in the work on the Facilities, provided, however, that if the execution of the work on the Facilities 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 EESL and the Implementing Partner shall be specified in GCC Sub-Clauses 42.1.2 and 42.1.3, except that the Implementing Partner 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 Element

39.

39.1 Changes in the Facilities

39.1.1 The EESL shall have the right to propose, and subsequently require, that the Project Manager order the Implementing Partner 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 Implementing Partner may from time to time during its performance of the Contract propose to the EESL (with a copy to the Project Manager) any Change that the Implementing Partner considers necessary or desirable to improve the quality, efficiency or safety of the Facilities. The EESL may at its discretion approve or reject any Change proposed by the Implementing Partner.

- 39.1.3** Notwithstanding GCC Sub-Clauses 39.1.1 and 39.1.2, no change made necessary because of any default of the Implementing Partner 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 EESL

If the EESL proposes a Change pursuant to GCC Sub-Clause 39.1.1, it shall send to the Implementing Partner a "Request for Change Proposal," requiring the Implementing Partner to prepare and furnish to the Project Manager as soon as reasonably practicable a "Change Proposal," which shall include the following:

- 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 in the Contract, the parties thereto shall agree on specific rates for the valuation 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 Implementing Partner 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 Implementing Partner may give a written notice of objection thereto prior to furnishing the Change Proposal as aforesaid. If the EESL accepts the Implementing Partner's objection, the EESL and the Implementing Partner shall agree on specific rates for valuation of the change.
- 39.2.4** Upon receipt of the Change Proposal, the EESL and the Implementing Partner 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 EESL shall, if it intends to proceed with the Change, issue the Implementing Partner with a Change Order.

If the EESL is unable to reach a decision within fourteen (14) days, it shall notify the Implementing Partner with details of when the Implementing Partner can expect a decision.

If the EESL decides not to proceed with the Change for whatever reason, it shall, within the said period of fourteen (14) days, notify the Implementing Partner accordingly.

39.2.5 If the EESL and the Implementing Partner 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 EESL may nevertheless instruct the Implementing Partner to proceed with the Change by issue of a "Pending Agreement Change Order."

Upon receipt of a Pending Agreement Change Order, the Implementing Partner 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.

39.3 Changes Originating from Implementing Partner

39.3.1 If the Implementing Partner proposes a Change pursuant to GCC Sub-Clause 39.1.2, the Implementing Partner 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 Implementing Partner has 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 EESL 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 EESL, specifically including failure to supply the items listed in Appendix 6 (Scope of Works and Supply by the EESL) to the Contract Agreement, or any activity, act or omission of any other Implementing Partners employed by the EESL or

- 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 Implementing Partner.

40.2 Except where otherwise specifically provided in the Contract, the Implementing Partner shall submit to the Project Manager a notice of a claim for an extension of the Time for Completion (at EESL's discretion whether to levy LD), 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 EESL and the Implementing Partner shall agree upon the period of such extension. In the event that the Implementing Partner does not accept the EESL's estimate of a fair and reasonable time extension, the Implementing Partner shall be entitled to refer the matter to the Arbitration, pursuant to GCC Sub-Clause 6.2 (Arbitration).

40.3 The Implementing Partner shall at all times use its reasonable efforts to minimize any delay in the performance of its obligations under the Contract.

41. Suspension

41.1 EESL may, by notice to the Implementing Partner, order the Implementing Partner 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 therefore. The Implementing Partner shall thereupon suspend performance of such obligation (except those obligations necessary for the care or preservation of the Facilities or continuity of the project or for the continuity of essential SLAs/ activity's) under the project) until ordered in writing to resume such performance by the Project Manager/ EESL.

If, by virtue of a suspension order given by the Project Manager/ EESL other than by reason of the Implementing Partner's default or breach of the Contract, the Implementing Partner'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 Implementing Partner may give a notice to the Project Manager requiring that the EESL 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 EESL fails to do so within such period, the Implementing Partner 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 EESL's Convenience).

41.2 If

- a) the EESL has failed to pay the Implementing Partner 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 Implementing Partner may give a notice to the EESL that requires payment of such sum, requires approval of such invoice or supporting documents, or specifies the breach and requires the EESL to remedy the same, as the case may be. If the EESL 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 sixty (60) days after receipt of the Implementing Partner's notice or
- b) the Implementing Partner is unable to carry out any of its obligations under the Contract for any reason solely attributable to the EESL, including but not limited to the EESL'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 Implementing Partner may by fourteen (14) days' notice to the EESL suspend performance of all or any of its obligations under the Contract, or reduce the rate of progress.

42. If the Implementing Partner'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 Implementing Partner as a result of such suspension or reduction shall be paid by the EESL to the Implementing Partner in addition to the Contract Price, except in the case of suspension order or reduction in the rate of progress by reason of the Implementing Partner's default or breach of the Contract.

42.1 During the period of suspension, the Implementing Partner shall not remove from the Site any Plant and Equipment, any part of the Facilities or any Implementing Partner's Equipment, without the prior written consent of the EESL. Additionally, implementing Partner shall not remove any deliverable

already installed. Also, implementing partner shall be obligated to install the deliverable or complete the work as per the scope for which directions have been issued by EESL.

42 Termination

42.1 Termination for EESL's Convenience

42.1.1 The EESL may at any time terminate the Contract for any reason by giving the Implementing Partner 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-Clause 42.1.1, the Implementing Partner shall either immediately or upon the date specified in the notice of termination

- (a) cease all further work, except for such work as the EESL 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 EESL pursuant to paragraph (d)(ii) below
- (c) remove all Implementing Partner's Equipment from the Site, repatriate the Implementing Partner's and its Sub Implementing Partners' 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 Implementing Partner, subject to the payment specified in GCC Sub-Clause 42.1.3, shall
 - (i) Deliver to the EESL the parts of the Facilities executed by the Implementing Partner up to the date of termination
 - (ii) to the extent legally possible, assign to the EESL all right, title and benefit of the Implementing Partner to the Facilities and to the Plant and Equipment as at the date of termination, and, as may be required by the EESL, in any subcontracts concluded between the Implementing Partner and its Sub Implementing Partners
 - (iii) deliver to the EESL all non-proprietary drawings, specifications and other documents prepared by the Implementing Partner or its Sub Implementing Partners 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 EESL shall pay to the Implementing Partner the following amounts:

- (a) the Contract Price, properly attributable to the parts of the Facilities executed by the Implementing Partner as of the date of termination
- (b) the costs reasonably incurred by the Implementing Partner in the removal of the Implementing Partner's Equipment from the Site and in the repatriation of the Implementing Partner's and its Sub Implementing Partners' personnel.
- (c) any amounts to be paid by the Implementing Partner to its Sub Implementing Partners in connection with the termination of any subcontracts, including any cancellation charges.
- (d) costs incurred by the Implementing Partner 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
- (e) the cost of satisfying all other obligations, commitments and claims that the Implementing Partner 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 or Implementing Partner's Default

42.2.1 The EESL, 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 Implementing Partner, referring to this GCC Sub-Clause 42.2:

- (a) if the Implementing Partner becomes bankrupt or insolvent, has a receiving order issued against it, compounds with its creditors, or, if the Implementing Partner 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 Implementing Partner takes or suffers any other analogous action in consequence of debt.
- (b) if the Implementing Partner assigns or transfers the Contract or any right or interest therein in violation of the provision of GCC Clause 43 (Assignment).
- (c) if the Implementing Partner, in the judgement of the EESL 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 any thing 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 EESL and includes collusive practice among Contractors (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the EESL of the benefits of free and open competition.

42.2.2 If the Implementing Partner

- (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 EESL to proceed
- (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 labor 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 EESL that the Implementing Partner can attain Completion of the Facilities by the Time for Completion as extended

then the EESL may, without prejudice to any other rights it may possess under the Contract, give a notice to the Implementing Partner stating the nature of the default and requiring the Implementing Partner to remedy the same. If the Implementing Partner fails to remedy or to take steps to remedy the same within fourteen (14) days of its receipt of such notice, then the EESL may terminate the Contract forthwith by giving a notice of termination to the Implementing Partner 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 Implementing Partner shall, either immediately or upon such date as is specified in the notice of termination,

cease all further work, except for such work as the EESL may specify in the notice of termination, or any work required to leave the Site in a clean and safe condition

- (a) terminate all subcontracts, except those to be assigned to the EESL pursuant to paragraph (d) below
- (b) deliver to the EESL the parts of the Facilities executed by the Implementing Partner up to the date of termination.
- (c) to the extent legally possible, assign to the EESL all right, title and benefit of the Implementing Partner to the Works. and to the Plant and Equipment as at the date of termination, and, as may be required by the EESL, in any subcontracts concluded between the Implementing Partner and its Sub Implementing Partners.
- (d) deliver to the EESL all drawings, specifications and other documents prepared by the Implementing Partner or its Sub Implementing Partners as at the date of termination in connection with the Facilities.

42.2.4 The EESL may enter upon the Site, expel the Implementing Partner, and complete the Facilities itself or by employing any third party. The EESL may, to the exclusion of any right of the Implementing Partner over the same, take over and use with the payment of a fair rental rate to the Implementing Partner, with all the maintenance costs to the account of the EESL and with an indemnification by the EESL for all liability including damage or injury to persons arising out of the EESL's use of such equipment, any Implementing Partner's Equipment owned by the Implementing Partner and on the Site in connection with the Facilities for such reasonable period as the EESL considers expedient for the supply and installation of the Facilities.

Upon completion of the Facilities or at such earlier date as the EESL thinks appropriate, the EESL shall give notice to the Implementing Partner that such Implementing Partner's Equipment will be returned to the Implementing Partner at or near the Site and shall return such Implementing Partner's Equipment to the Implementing Partner in accordance with such notice. The Implementing Partner 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 Implementing Partner 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 EESL from the Implementing Partner accruing prior to the date of termination shall be deducted from the amount to be paid to the Implementing Partner under this Contract.

42.2.6 If the EESL completes the Facilities, the cost of completing the Facilities by the EESL shall be determined.

If the sum that the Implementing Partner is entitled to be paid, pursuant to GCC

Sub-Clause 42.2.5, plus the reasonable costs incurred by the EESL in completing the Facilities, exceeds the Contract Price, the Implementing Partner shall be liable for such excess.

If such excess is greater than the sums due to the Implementing Partner under GCC Sub-Clause 42.2.5, the Implementing Partner shall pay the balance to the EESL, and if such excess is less than the sums due to the Implementing Partner under GCC Sub-Clause 42.2.5, the EESL shall pay the balance to the Implementing Partner.

The EESL and the Implementing Partner shall agree, in writing, on the computation described above and the manner in which any sums shall be paid.

42.3 Notice by Contractor or Implementing Partner

42.3.1 If

(a) the EESL has failed to pay the Implementing Partner 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 Implementing Partner may give a notice to the EESL that requires payment of such sum, requires approval of such invoice or supporting documents, or specifies the breach and requires the EESL to remedy the same, as the case may be. If the EESL fails to pay such sum, fails to approve such invoice or supporting documents or give its reasons for withholding such approval, fails to remedy the breach or take steps to remedy the breach within fourteen (14) days after receipt of the Implementing Partner's notice.

43 Assignment

43.1 The Implementing Partner shall not, without the express prior written consent of the EESL, assign to any third party the Contract or any part thereof, or any right, benefit, obligation or interest therein or thereunder, except that the Implementing Partner 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.

44 Bankruptcy

If the Contractor shall become bankrupt or have a receiving order made against him or compound with his creditors, or being a corporation commence to be wound up, not being a voluntary winding up for the purpose only of amalgamation / reconstruction, or carry on its business under a receiver for the benefit of its creditors or any of them, the Owner will be at liberty :

to terminate the contract forthwith by notice in writing to the liquidator or receiver or to any person in whom the contract may become vested & to act in the manner provided in GCC clause 42 entitled "Termination" as though the last mentioned notice has been the notice referred to in such clause and the equipment

and materials have been taken out of the contractor's hands.

to give such liquidator, receiver or other person, the option of carrying out the contract subject to his providing a guarantee, for the due and faithful performance of the contract up to an amount to be determined by the Owner.

45 Contractor Performance & Feedback and Evaluation System

The Employer has a right to evaluate 'Contractor Performance', wherein during the execution of contract performance of contractor shall be evaluated on a continuous basis at regular intervals under the heads such as but not limited to a) Financial Status; b) Project Execution & Project Management Capability; c) Engineering & QA Capability and d) Claims and Disputes.

In case the performance of the contractor is found unsatisfactory on any of the above four parameters, the contractor shall be considered ineligible for participating in future tenders for a period as may be decided by the Employer in line with the relevant provision of Policy and Procedure for withholding and Banning of Business Dealings, as applicable.

46 Fraud Prevention Policy

The contractor along with their associate/collaborator/sub-contractors/sub-vendors/ consultants/service providers shall strictly adhere to the Fraud Prevention Policy of EESL displayed on its tender website www.eeslindia.org

The Contractor along with their associate/collaborator/sub-contractors/sub-vendors/ consultants/service providers shall observe the highest standard of ethics and shall not indulge or allow anybody else working in their organisation 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.

47 Audit:

EESL reserves the right to audit, at its expense, Contractors accounts and document pertaining to scope of work under this contract in each six (6) month period after providing reasonable written notice of at least fifteen (15) days. The audit shall be conducted without distributing the day to day work the Contractor and shall be focused and limited to the document, accounts or information pertaining to activities under this Contract.



**Part-A of Section-4
Bid Data Sheet**

Part-A of Section-4 (Bid Data Sheet)

The following bid specific data shall amend and/or supplement the provisions in the Instructions to Bidders (ITB)

Sl. No.	ITB Clause Ref. No.	Bid Data Details																					
1.	ITB 1.1.1	<p>Supplement ITB 1.1.1 with the following:</p> <p>The Reference number of Invitation for Bid (IFB) is: NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002</p> <p>The Purchaser/Employer is Energy Efficiency Services Limited</p> <p>The No. and Identification of Lots/Package/Schedule comprising this Open Competitive bidding (OCB) is as per the following Details:</p> <table border="1"> <thead> <tr> <th>Zone</th><th>No. of Sites (Nos.)</th><th>Capacity (MW)</th></tr> </thead> <tbody> <tr> <td>Zone - 1</td><td>10</td><td>7.16</td></tr> <tr> <td>Zone - 2</td><td>8</td><td>10.50</td></tr> <tr> <td>Zone - 3</td><td>9</td><td>11.04</td></tr> <tr> <td>Zone - 4</td><td>6</td><td>11.62</td></tr> <tr> <td>Zone - 5</td><td>15</td><td>11.57</td></tr> <tr> <td>Total</td><td>48</td><td>51.89</td></tr> </tbody> </table> <p>The Employer is:</p> <p>M/s. Energy Efficiency Services Limited Core-5, 4th Floor, SCOPE Complex, Lodhi Road, New Delhi-110003 Kind Attn.: DGM (Contracts)/ Senior Manager (Contracts) Telephone Nos.: +91 11 45801260 Email: prabodh.singh@eesl.co.in, umohan@eesl.co.in</p> <p>For the purpose of execution of the contract, the contractual activities shall be performed by the Employer “for and on behalf of the Owner” except in cases where the Owner itself is statutorily required to do so.</p> <p>EESL intends to ringfence payments made by retail customers and funds provided by institutional clients for eligible payments under the contract for the subject tender.</p>	Zone	No. of Sites (Nos.)	Capacity (MW)	Zone - 1	10	7.16	Zone - 2	8	10.50	Zone - 3	9	11.04	Zone - 4	6	11.62	Zone - 5	15	11.57	Total	48	51.89
Zone	No. of Sites (Nos.)	Capacity (MW)																					
Zone - 1	10	7.16																					
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Zone - 4	6	11.62																					
Zone - 5	15	11.57																					
Total	48	51.89																					

Sl. No.	ITB Clause Ref. No.	Bid Data Details
		Note: It may be noted that the subject procurement is w.r.t. EESL sales business wherein EESL shall ensure supplies against retail orders with payments and institutional orders with payment security.
2.	ITB 1.1.2	<p>Supplementing clause ITB 1.1.2 as per the following:</p> <p>1. Eligible Bidders:</p> <p>Any Bidder from a country which shares a land border with India will be eligible to bid only if the Bidder is registered with the Competent Authority as per order no. F.No.6/18/2019-PPD (Order Public Procurement no.1) dated 23/07/2020 and F.No.6/18/2019-PPD (Order Public Procurement no.2) dated 23/07/2020 including all its subsequent order/notices in this regard, issued by Public Procurement Division, Department of Expenditure, Ministry of Finance, Government of India (DoE Order). Registration should be valid at the time of submission of bids and at the time of Award.</p> <p>However, the aforesaid condition for registration of Bidders from countries (even if sharing land border with India) shall not be applicable to Bidders from such countries to which Government of India has extended lines of credit or in which Government of India is engaged in development projects.</p> <p>For the aforesaid purpose,</p> <p>(i) “Bidder” 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.</p> <p>(ii) “Bidder from a country which shares a land border with India” for this purpose means:</p> <ol style="list-style-type: none"> An entity incorporated, established or registered in such a country; or A subsidiary of an entity incorporated, established or registered in such a country; or An entity substantially controlled through entities incorporated, established or registered in such a country; or An entity whose beneficial owner is situated in such a country; or An Indian (or other) agent of such an entity; or A natural person who is a citizen of such a country; or

Sl. No.	ITB Clause Ref. No.	Bid Data Details
		<p>g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above</p> <p>(iii) The beneficial owner for the purpose of (ii) (d) above will be under:</p> <ol style="list-style-type: none"> 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 controlling ownership interests or who exercises control through other means. <p>Explanation-</p> <ol style="list-style-type: none"> a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five percent of shares or capital or profits of the company. b. "Control" shall include the right to appoint a majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreement or voting rights. <ol style="list-style-type: none"> 2. In the 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.

Sl. No.	ITB Clause Ref. No.	Bid Data Details
		<p>An Agent is a person employed to do any act for another, or to represent another in dealings with third person.</p> <p>Further, 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. This restriction on subcontracting shall not be applicable for procurement of raw materials, components, sub-assemblies etc. However, in case of finished goods procured directly/indirectly from the vendors from the countries sharing land border with India, such vendor will be required to be registered with the Competent Authority.</p> <p>The Bidder shall in its bid submit a certificate in compliance with the DoE order as per the enclosed format at Attachment-11 of Section 6.</p> <p>Only Class-I Local Suppliers with minimum local content of 50%, are eligible to bid in this tender in conformance with the order for “Public procurement (Preference to make in India) to provide for Purchase preference (linked with local content in respect of Ministry of New & Renewable Energy” issued vide F.No. 283/22/219-Grid Solar, MNRE Dated: 09.02.2021 and subsequent modifications/amendments if any</p> <p>Firms who are not ‘Class-I local supplier’ shall not be eligible to bid.</p> <p>Presently, the local content requirement to categorize a supplier as ‘Class-I local supplier’ is minimum 50%.</p> <p>The ‘Class-I local supplier’ shall give a self-certification in his bid in the given format, indicating the percentage of Local Content and certifying that the item offered meets the Local Content requirement for ‘Class –I local supplier’ and shall give details of the location(s) at which value addition is made. Further, in case of packages above Rs. 10 Cr, the ‘Class-I local supplier’ shall provide a certificate from 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. Any false declaration regarding Local Content by the bidder shall be taken in line with provisions of the PPP-MII Order.</p> <p>Further, entities of countries which have been identified by the Nodal Ministry/Department identified under PPP-MII order, as not allowing Indian companies to participate in their Government procurement for any item related to that Nodal Ministry shall not be allowed to</p>

Sl. No.	ITB Clause Ref. No.	Bid Data Details																																																						
		participate in bidding for all items related to that Nodal Ministry/Department, except for the list of items published by the Ministry/Department permitting their participation. The term 'entity' of a country shall have the same meaning as under the FDI Policy of DPIIT as amended from time to time.																																																						
3.	ITB 1.2	<p>Supplementing ITB 1.2 with the following:</p> <p>Address: M/s Energy Efficiency Services Limited Street Address: Core 5, SCOPE Complex, Lodhi Road, Floor/Room number: Fourth Floor City: New Delhi Pin code: 110003, Country: India Kind Attn.: DGM (Contracts)/ Senior Manager (Contracts) Telephone Nos.: +91 11 45801260 Email: prabodh.singh@eesl.co.in, umohan@eesl.co.in</p> <p>Further it may be mentioned that Pre-bid meeting will be conducted for this tender as per detail provided in Section-1 IFB and this also be communicated through Portal.</p> <p>However, a query may be forwarded to EESL in the following format within 4 days of floating of inquiry.</p> <table><tr><td colspan="2">Name of Tender</td><td colspan="3"></td></tr><tr><td colspan="2">Tender No.</td><td colspan="3"></td></tr><tr><td colspan="2">Tender ID</td><td colspan="3"></td></tr><tr><td colspan="2">Bid Opening Date</td><td colspan="3"></td></tr><tr><td colspan="2">Bidder's Name</td><td colspan="3"></td></tr><tr><td colspan="2">Contact person from Bidder with address, e-mail and Contact No.</td><td colspan="3"></td></tr><tr><td rowspan="3">Sr. No.</td><td>Section No.</td><td rowspan="3">Description as Per RFP</td><td rowspan="3">Queries/ Clarification of the bidder</td><td rowspan="3">Remarks</td></tr><tr><td>Page No.</td></tr><tr><td>Para No/ Clause No.</td></tr><tr><td rowspan="3">1.</td><td>Section No.</td><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td></tr><tr><td>Page No.</td></tr><tr><td>Para No/ Clause No.</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td>2.</td><td>Section No.</td><td></td><td></td><td></td></tr></table>	Name of Tender					Tender No.					Tender ID					Bid Opening Date					Bidder's Name					Contact person from Bidder with address, e-mail and Contact No.					Sr. No.	Section No.	Description as Per RFP	Queries/ Clarification of the bidder	Remarks	Page No.	Para No/ Clause No.	1.	Section No.				Page No.	Para No/ Clause No.						2.	Section No.			
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		3.	Section No. Page No. Para No/ Clause No.													
4.	ITB 1.4	<p>Supplementing ITB 1.4 with the following:</p> <p>All the Bidders except those exempted pursuant to Annexure-II shall submit along with the hard copy part of bid a nonrefundable fee as INR 25000 towards the cost of Bidding Documents in the form of demand draft in favor of Energy Efficiency Services Limited, payable at New Delhi.</p> <p>Bid Fee may also be submitted online through RTGS. The detail of RTGS is as mentioned below:</p> <table><tr><th>Account Name</th><th>Account No.</th><th>Bank Name</th><th>Branch Name</th><th>RTGS DETAIL</th></tr><tr><td>ENERGY EFFICIENCY SERVICES LIMITED</td><td>2164002100012319</td><td>Punjab National Bank</td><td>LARGE CORPORATE BRANCH DELHI</td><td>IFSC CODE: PUNB0216400 MICR Code: 110751001 BRANCH: DELHI NEW, L.C.B. ADDRESS: TOLSTOY HOUSE, TOLSTOY MARG, NEW DELHI ,DELHI-110001</td></tr></table> <p>Note: Bidders submitting Bid Fee through RTGS shall upload the scan copy of receipt of transfer of amount in Envelope-I. Participation of bidder shall be subject to confirmation of amount transferred through RTGS. The details mentioned in the document uploaded as proof of transfer of amount shall only be considered for verification purpose.</p> <p>Bidder’s failure to submit nonrefundable fee towards the cost of Bidding Documents in the form of an acceptable Demand Draft along with the bid or an online payment through EESL ONLINE PAYMENT UTILITY or subsequently pursuant to Clarification as per ITB 4.2, except as exempted, shall lead to outright rejection of the Bid.</p>					Account Name	Account No.	Bank Name	Branch Name	RTGS DETAIL	ENERGY EFFICIENCY SERVICES LIMITED	2164002100012319	Punjab National Bank	LARGE CORPORATE BRANCH DELHI	IFSC CODE: PUNB0216400 MICR Code: 110751001 BRANCH: DELHI NEW, L.C.B. ADDRESS: TOLSTOY HOUSE, TOLSTOY MARG, NEW DELHI ,DELHI-110001
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5.	ITB 2.1	Replacing ITB 2.1 with the following:														

Sl. No.	ITB Clause Ref. No.	Bid Data Details
		<p>Bids shall be submitted in Single Stage Two Envelope Bidding Procedure/Process as per the following:</p> <p>I. <u>Packet-I of Envelope -1 (Techno-Commercial Bid)</u></p> <p>A. Shall contain Hard Copy of the following documents:</p> <ol style="list-style-type: none"> Fee towards cost of RfP Documents as per clause ITB 1.4 or documentary evidence in support of exemption of Document Fee. Bidders submitting Document Fee through RTGS shall upload the scan copy of receipt of transfer of amount in Packet-I of Envelope-I. Participation of bidder shall be subject to confirmation of amount transferred through RTGS. The details mentioned in document uploaded as proof of transfer of amount shall only be considered for verification purpose. For Submission of Bid document fee through NEFT/RTGS mode, clause no - 1.4 of ITB (Section-2)/BDS (Section-IV Part-A) may also be referred (<i>submission of Hard Copy in "Original" for Document Fee and "Copy" for documentary proof in support of exemption or Payment Acknowledgement towards Document Fee in case of Online Payment</i>) Bid Security (in Original) as per the format attached in Attachment-2 of Section-6 or documentary evidence in support of exemption of Bid Security, in separate envelope in accordance with clause 2.4 of ITB (<i>submission of Hard Copy in "Original" for Bid Security and "Copy" of documentary proof in support of exemption</i>) <p>Note: In case MSE bidders are exempted from submission of Document fee & Bid Security as indicated in Clause No 2.4 of ITB Section-2, then bidder has to submit copy of valid 'Udyam Registration Certificate' in Packet-1 of Envelop-1 for the purpose of Evaluation. Micro and Small Enterprises (MSEs) registered with Udyam Registration Portal as specified by Ministry of Micro, Small and Medium Enterprises are exempted from submission of fee towards the cost of Bidding Documents as per the Provisions of the Public Procurement Policy for Micro and Small Enterprises (MSEs) order 2012, Notification dated 01/06/2020 and 26/06/2020 read in conjunction with related notifications issued from time to time for such enterprises.</p> <p>The details of EMD instrument have to be submitted in relevant field/column of online module. Tenders without EMD, if applicable, will be out rightly rejected. It should be ensured by the vendor that the original</p>

Sl. No.	ITB Clause Ref. No.	Bid Data Details
		<p>instrument of Bid Security/EMD is received by EESL before deadline of submission of techno-commercial bids.</p> <p>EESL shall not be responsible for any delay, loss or non-receipt of Tender Document Cost sent by post/courier. The instrument should reach in original to EESL office before the Bid Opening date. In case of Bidder's failure to submit the tender document cost/ tender fees (instrument in original hard copy) along with the Bid or subsequently pursuant to ITB Sub-clause 4.2, the Bid shall be rejected.</p> <p>Tender Documents fee is non-refundable. The bid securities of unsuccessful bidder(s) will be returned as promptly as possible after the award is made. The bid security of the Bidder will be returned when it has signed the contract agreement and has furnished the required performance security.</p> <p>B. Packet-II of Envelope -1 shall contain Soft Copy (Scanned Copy) of the following documents:</p> <ol style="list-style-type: none"> 1. Bid Form as per format attached as Attachment-1 of Section - 6, Forms & Procedures. <p>Note: In case of non-submission of this form, bid will be rejected.</p> <ol style="list-style-type: none"> 2. A power of attorney duly authorized by a notary public, indicating that the person(s) signing the bid has/have the authority to sign the bid and thus the bid is binding upon the bidder during the full period of its validity in accordance with ITB clause 2.10. The said power of attorney to be submitted as Attachment-3 of Section-6, Bidders to use their own format. 3. Certificate regarding acceptance of important terms and conditions in line with ITB clause 4.6 as per format attached as Attachment-4, Section 6, Forms & Procedure. 4. Deviation statement as per Attachment -5 of Section - 6, Forms & Procedure. <p>NOTE: i. Bids containing material deviations from or reservation to the terms and conditions and specifications mentioned in the RfP</p>

Sl. No.	ITB Clause Ref. No.	Bid Data Details
		<p>Documents will be treated as non-responsive and will not be considered further.</p> <p>ii. In case of non-submission of this attachment, the bid shall be considered as no deviation bid.</p> <ol style="list-style-type: none"> Form of acceptance of EESL fraud prevention policy and declaration as per Attachment- 6 of Section 6, Forms & Procedure. Letter of undertaking (as per Attachment-7 of Section-6) to be executed by the Holding Company Supported by Board Resolution and submitted by the Bidder along with the Bid, in case financial support is being extended by the Holding Company to the Bidder for meeting the stipulated Financial Qualifying (as applicable) NEFT/RTGS Bank details as per Attachment-8 of Section 6, Forms & Procedure. Compliance of Matrix/checklist for technical and Financial QR duly filled and signed on Company letter head pad with company's seal. (Scanned Copy to be uploaded at E-tendering portal as per Attachment-9 of Section-6.) Certificate Regarding Declaration of Local Content as per Attachment-10 of Section-6 Certification by the Bidder for "Restrictions on procurement from a Bidder of a country which shares a land border with India" as per order no. F.No.6/18/2019-PPD dated 23/07/2020 issued by Public Procurement Division, Department of Expenditure, Ministry of Finance, Government of India (DoE Order) (as per format in Attachment -11 of Section-6). Details regarding Qualifying Requirement /Eligibility criteria as per Attachment-12 of Section-6. Certificate regarding non- debarment for false declaration of Local Content as per Attachment-13 of Section-6. Certificate regarding non-debarment / blacklisting/ disqualification as per Attachment-14 of Section-6. <p>Note: <i>In case any Bidder is blacklisted/debarred by any regulatory/ statutory body/ Central/State/UT Government or any Public sector entities, then such Bidder is required to submit following details:</i></p> <ol style="list-style-type: none"> <i>Date and validity of blacklisting/debarment.</i> <i>Name of regulatory/ statutory body/ Central/State/UT Government or Public sector entities who has issued such blacklisting/ debarment.</i> <i>Reason for blacklisting/debarment</i>

Sl. No.	ITB Clause Ref. No.	Bid Data Details
		<p><i>d. Letter/Notification of blacklisting/ debarment.</i></p> <p><i>Based on aforesaid details provided by the Bidders and as available with EESL, EESL shall analyze and decide the case in line with applicable guidelines/notification of Government of India / EESL</i></p> <p>14. Techno-commercial bid as indicated in bid document. Documentary evidence regarding bidder's qualifications to perform the contract as required in Qualifying Requirement (QR).</p> <p>15. Any other document as considered appropriate.</p> <p>Note: The format for all the aforementioned Attachments is part of Section-6.</p> <p><i>Bidder to note that no document revealing the prices shall be submitted in Envelope-I along with the techno-commercial bid. Revealing of prices at this juncture in any mode shall lead to outright rejection of bid. Prices are to be filled in Envelop-II as per the provision(s) made available by EESL in the prescribed format uploaded on e-procurement portal.</i></p> <p>II. Envelope-2 (Second Envelope) shall contain Price Bid (to be filled-up in excel format available online on e-portal)</p> <p>The prices are to be filled in prescribed format in soft copy (in excel format) available on e-portal only. Bidders are requested not to submit the price bid in hard copy at EESL as the same shall not be considered. Price Bid Format as attached at Annexure-III in the RfP document is only for illustration/reference purpose, however, terms and conditions mentioned there in is part of this RfP/Bidding Documents.</p> <p>The price quoted in respect of all items in the above schedule shall be excluding applicable GST. The Bidder shall quote its prices taking into account the Input Tax Credit (ITC) as may be available under the Goods and Services Tax (GST) Laws and Regulations.</p>
6.	ITB 2.4	<p>Supplement ITB 2.4 with the following:</p> <p>The value of Bid Security shall be:</p> <p>Validity of EMD Bank Guarantee (BG) / Insurance Surety Bond: Bid security/EMD BG shall remain valid for a period of 45 days beyond the bid validity period, i.e., up to 25.05.2025</p>

Sl. No.	ITB Clause Ref. No.	Bid Data Details
		<p>(Note: Bidder has an option to provide the EMD BG validity for a greater duration than that specified above to cater to any future extension requirements).</p> <p>The bid shall be outrightly rejected if the EMD BG doesn't conform to any of the following conditions:</p> <ul style="list-style-type: none"> (i) The name and/or tender reference of the package mentioned in the BG is different from the package for which bids have been invited. (ii) The firm/proprietor, on whose behalf the Bank Guarantee has been furnished, is different from the bidder. (iii) The Bank Guarantee is less than the prescribed value mentioned in the tender. (iv) The validity of the Bank Guarantee is less than the stipulated period mentioned in the tender.
7.	ITB 2.15	<p>Replace ITB 2.15 with the following:</p> <p>Consortium is not allowed for the subject tender</p>
8.	ITB 2.9	<p>To be supplemented with following:</p> <p>Price to be quoted on firm price Basis.</p>
9.	ITB 3.2	<p>Supplementing ITB 3.2 with the following:</p> <p>Soft copy part of the bid shall be uploaded through the portal www.tenderwizard.com/EESL at or before the submission time and date as stipulated in the RfP document. Hard copy of the bid under Packet-I of Enevelope-1 as per ITB 2.1 must be received by the Employer at the address specified below no later than the time and date stated herein below:</p> <p>Address in Person or by Post: Deputy General Manager (Contracts), M/s. Energy Efficiency Services Limited Core-5, 4th Floor, SCOPE Complex, Lodhi Road, New Delhi-110003</p> <p>Deadline for submission of Hard copy of Documents</p> <p>Date: 10.10.2024</p> <p>Time: up to 1100 hours [Indian Standard Time (e-procurement server time)]</p> <p>Address for Bid Opening:</p>

Sl. No.	ITB Clause Ref. No.	Bid Data Details
		<p>M/s. Energy Efficiency Services Limited Core-5, 4th Floor, SCOPE Complex, Lodhi Road, New Delhi-110003</p> <p>The deadline for <u>soft copy part of the bid</u> submission is</p> <p>Date: 10.10.2024</p> <p>Time: 1100 hrs. [Indian Standard Time (e-procurement server time)].</p> <p>Bid submission timelines will be defined as per the e-Procurement server clock only.</p> <p>Time and date for Bid Opening - Envelope-I (First Envelope):</p> <p>Date: 10.10.2024</p> <p>Time: 1130 hours (Indian Standard Time)</p> <p>(a) Bid Title: “Refurbishment & restoration for the revival of the solar plant with Operation and Maintenance for the remaining period up to 10 years of operation from the date of commissioning of the 48 sites of distributed solar plant of cumulative capacity 51.89 MWp in Maharashtra”.</p> <p>NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment/OTE/242509002</p> <p><u>Envelope-I (First Envelope)</u></p> <p>Do not open before 11:30 hours (Indian Standard Time) on 10.10.2024.</p> <p>In the event of the specified date for the submission of bids being declared a holiday for the Employer, the bids will be received/uploaded up to the appointed time on the next working day.</p> <p>Notwithstanding above, the Employer may, at its discretion, extend the deadline for submission of soft part of the bids from 1100 hrs (IST) to 1500 hrs (IST) on the same day in case the bidder(s) faces difficulty in submission of bids on the e-Procurement portal even for reasons not attributable to the e-Procurement server. In such a case, the bidder(s) shall however, be required to send a written communication on the e-mail IDs mentioned below for the purpose before the deadline for submission of soft part of the bids i.e., 1100 hrs. (IST) on the last day of the aforesaid deadline. Any</p>

Sl. No.	ITB Clause Ref. No.	Bid Data Details
		<p>request received by the Employer thereafter i.e., beyond 1100 hrs. (IST) or received prior to the day of deadline for submission of soft part of the bids shall not be entertained under any circumstances. The time of receipt of such communication on the e-mail IDs mentioned below shall govern for the purpose of determining whether or not the communication has been received prior to the deadline for bid submission as stipulated. The bidder(s) may also note that the above recourse shall, however, be adopted only once in the first such instance and no further extension on this account beyond 1500 hrs (IST) as above shall be given by the Employer.</p> <p>The e-mail IDs for aforesaid purpose are mentioned below:</p> <p>Email IDs: prabodh.singh@eesl.co.in, umohan@eesl.co.in</p>
10.	ITB 4.2	<p>Supplement ITB 4.2 with the following:</p> <p>During bid evaluation, the Employer may, at its discretion, ask the Bidder for a clarification of its bid in case of erroneous/non submission of following documents (as applicable):</p> <ul style="list-style-type: none"> i) Online Payment Acknowledgement towards the Bid Document fee (<i>applicable only in cases where online Payment towards Bid Document fee is paid, prior to deadline for submission of bids</i>). Further, if Bidder has uploaded scanned copy of Banker's Cheque/ Demand Draft drawn in favor of "Energy Efficiency Services Limited" payable at New Delhi towards Bid Document fee, however, not submitted the original (in hard) along with the bid, then such Banker's Cheque/ Demand Draft shall be asked through clarification. ii) MSE certificate as per UDYAM registration. The issuance date for the aforesaid certificates must be prior to deadline for submission of bids. iii) Power of Attorney (POA) to sign the bid. iv) Form of acceptance of EESL fraud prevention policy and declaration (as per format in Section 6, Forms & Procedure) v) NEFT/RTGS Bank details (as per format in Section 6, Forms & Procedure) vi) Self-Declaration for not been blacklisted by Central/State/UT Government or any Public sector entities duly signed and stamped at company's Letter Head

Sl. No.	ITB Clause Ref. No.	Bid Data Details
		<p>vii) Compliance of Matrix/checklist for bidder (as per format in Section 6, Forms & Procedure) duly filled and signed on Company letter head pad with company's seal.</p> <p>viii) Certificate regarding Declaration of local content (as per format in Section 6, Forms & Procedure)</p> <p>ix) Self-Declaration duly signed on Company Letter Head Pad with company's seal for not being under debar list/undergoing debarment period on account of breach of the code of integrity under rule 175(1)(i)(h) of general financial rules for giving false declaration of local content.</p> <p>x) Declaration regarding "Restrictions on procurement from a Bidder of a country which shares a land border with India."</p> <p>xi) Consortium Agreement (if applicable)</p> <p>xii) Confirmation regarding furnishing declaration regarding Non-Participation as a Bidding Company or as a Member of any Bidding Consortium.</p> <p>xiii) Other documents/details of historical nature such as certificate of incorporation, complete Audited Annual Reports together with Audited statement of accounts, Experience Certificate issued by Utility/Employer for work completed/executed prior to deadline for submission of bids etc.</p> <p>xiv) Any other documents/details/information of historical nature</p> <p>The EESL may give the Bidder not more than 5 working days' notice to rectify/furnish such documents, failing in which the bid shall be rejected. The request for clarification and the response shall be in writing, and no change in the price or substance of the bid shall be sought, offered or permitted.</p>
11.	ITB 4.5	<p>Supplement ITB 4.5 with the following:</p> <p>The Employer may waive any minor informality, nonconformity or irregularity in a bid that does not constitute a material deviation, whether or not identified by the Bidder in relevant Attachment to its bid, and that does not prejudice or affect the relative ranking of any Bidder as a result of the technical and commercial evaluation, pursuant to ITB Clause 4.7 & 4.8.</p>
12.	ITB 4.6	Supplementing ITB 4.6 with the following:

Sl. No.	ITB Clause Ref. No.	Bid Data Details
		<p>Qualification: The Employer will ascertain to its satisfaction whether Bidders determined having submitted substantially responsive bids are qualified, as per the Qualification Requirement specified in Part- B of Section-4 to satisfactorily perform the contract. The Employer shall be the sole judge in this regard and the Employer's interpretation of the Qualification Requirement shall be final and binding.</p> <p>The determination will take into account the Bidder's financial, technical capabilities including production capabilities, in particular the Bidder's contract work in hand, future commitments & current litigation and past performance including fatal accidents during execution of contracts that have been awarded by the Employer on the Bidder. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder in the bid, as well as such other information as the Employer deems necessary and appropriate. This shall, however, be subject to assessment that may be carried out, if required, by the Employer.</p> <p>The Employer may waive any minor informality, nonconformity or irregularity in a bid that does not constitute a material deviation, affecting the capability of the Bidder to perform the Contract. An affirmative determination will be a prerequisite for the Employer to evaluate the Techno - Commercial Part and open the Second Envelope of the Bidder. A negative determination will result in rejection of the Bidder's bid.</p>
13.	ITB 4.9	<p>Supplementing ITB 4.9 with the following:</p> <p>Regarding deviations, conditionality or reservations introduced in the bid, which will be reviewed to conduct a determination of substantial responsiveness of the Bidder's bid as stated in ITB Clause 4.9, the order of precedence of these documents to address contradictions, if any, in the contents of the bid, shall be as follows:</p> <ul style="list-style-type: none"> I. Letter of Bid (Bid Form). II. Attachment-5 (Deviation Statement) III. Price Schedules IV. Technical Documents V. Any other part of the bid <p>Contents of the document at Sr. No. I above will have over-riding precedence over other documents (Sr. No. II to V above). Similarly, contents of document at Sr. No. II above will have overriding precedence over other documents (Sr. No. III to V above), and so on. However, any</p>

Sl. No.	ITB Clause Ref. No.	Bid Data Details
		major inconsistency amongst the above documents of the bid will be interpreted against the bidder.
14.	ITB 4.12	<p>New Clause Added as: Evaluation Criteria-</p> <ul style="list-style-type: none"> a) The subject tender comprises of five (5) packages/ zones, the bidders may quote / participate in one or more package(s). b) Evaluation shall be carried out package wise. c) To qualify for all the quoted packages, the bidder must meet the cumulative Qualifying Requirement (QR) criteria as per Section – 4 (Part-B) of RfP for all the quoted packages. <p>Note: If a bidder doesn't meet the cumulative requirement specified under the QR criteria for the quoted packages they shall be considered qualified for the opening of price bids for packages in descending order of the ATO requirement value of the quoted packages. However, the Price Bid of the bidder will only be opened for those packages for which they meet the combined/cumulative requirement as per the QR.</p> <ul style="list-style-type: none"> d) Bidders shall submit their prices as a percentage above/below the total base price indicated in the Price Bid for different Zone (s) / Package (s). e) The quoted percentage above/below shall be uniformly applicable to Part A, Part B, and Part C as indicated in the "Price Bid Format" for the respective Zone (s) / Package (s). f) The bidder who shall offer the highest percentage of discount will be treated as the Lowest evaluated bid i.e., L-1 of price bid and the L-1 bidder shall be considered for award in line with terms & Conditions of the RfP/bidding Documents. g) It is mandatory to submit the price bid. h) The individual package is non-splitable, shall be awarded to single bidder as given below:

Sl. No.	ITB Clause Ref. No.	Bid Data Details		
		Bidder	Qty. Awarded	Remarks
		L1	100%	Single Party Tender
		<p>i) Please note that tender conditions applicable for MSEs and start-ups are mentioned at Annexure-II of RfP.</p> <p>j) Prices will remain firm till the duration of the contract, and nothing shall be payable extra apart from the prices quoted above.</p> <p>k) In case of a tie (where total evaluated price of two or more bidders are same), bidder having the highest value of average annual turnover, as considered for meeting ATO requirement under Financial QR indicated at (QR) of the Bidding Documents, would be considered for award.</p> <p>l) The bidder must take the above conditions in cognizance while submitting their bids.</p> <p>m) Arithmetical errors will be rectified on the following basis: If there is a discrepancy between words and figures, the percentage quoted in words shall be taken as the final percentage for all purposes.</p>		
15.	ITB 5.9	<p>New Clause ITB 5.9 Added As</p> <p>Withholding of Bidder: In case of failure to honor its bid after emerging as successful bidder, the bidder will be withhold from participating in EESL's tenders for a period of one year from the date of communication of such withholding to the bidder. During this tenure, the bidder will be barred from participation in EESL tendering process. However, the bidder has to continue the unexecuted work of the other prevailing work if any under the current running contracts. Simultaneously, the EMD submitted by such bidder against the subject tender will be forfeited. If the bidder is exempted from submission of EMD, then the EMD amount will be adjusted from the payments due to the contractor against other running contracts. If there is no running contract of the bidder/ no payment dues of the bidder, then EESL reserves the right to take any legal remedy as deemed fit to recover the penalty equivalent to EMD amount through legal means.</p>		

----- End of Section - 4 {Part-A (BDS)} -----

Eligibility and Qualifying Requirements (QR)

A. Eligibility Criteria:

Sl. No.	Eligibility Criteria	Documents to be Submitted for Compliance by the Bidders
1.	<p>Bidder should be a Single Entity means a limited company (as defined in the Companies Act, 1956 and any amendment thereof)</p> <p style="text-align: center;">OR</p> <p>A registered partnership firm (registered under section 59 of the Partnership Act, 1932 and any amendment thereof)</p> <p style="text-align: center;">OR</p> <p>A limited liability partnership (under the Limited Liability Partnership Act, 2008 and any amendment thereof)</p> <p style="text-align: center;">OR</p> <p>Proprietorship firm</p> <p>(Consortium/JV is not allowed in the tender)</p>	<p>Copy of certificate of incorporation / Memorandum of Association / Article of Association</p> <p style="text-align: center;">OR</p> <p>A registered Partnership Deed</p> <p style="text-align: center;">OR</p> <p>LLP registration certificate issued by registrar of Companies</p> <p style="text-align: center;">OR</p> <p>In Case of Proprietor, GST Registration and PAN Card copies are to be submitted.</p>
2.	<p>PPP MII guidelines issued by Govt. of India shall be applicable for this tender. Only Class-I Local Suppliers with minimum local content of 50%, are eligible to bid in this tender in conformance with the order for "Public procurement (Preference to make in India) to provide for Purchase preference (linked with local content in respect of Renewable Energy (RE) sector" issued vide order ref no. F.No. 283/22/2019-GRID SOLAR Dated 09.02.2021</p> <p>NOTE: - Only Class-I local suppliers as defined in the above tender are eligible to take part in this bidding process.</p>	<p>The Bidder shall give a self-certification in his bid in the enclosed format at relevant Attachment of the RfP document, indicating the percentage of Local Content and certifying that the item offered meets the Local Content requirement for 'Class -I local supplier' and shall give details of the location(s) at which value addition is made.</p> <p>Further, in case of tenders above Rs. 10 Cr, the 'Class-I local supplier' shall provide a certificate from 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 as per the format at relevant Attachment of the RfP document</p>

Sl. No.	Eligibility Criteria	Documents to be Submitted for Compliance by the Bidders
3.	<p>Pursuant to Order No. F. No 6/18/2019-PPD dated-23-July-2020 from Department of Expenditure, Ministry of Finance, the applicant should be either of the following:</p> <ul style="list-style-type: none"> · Not from a country which shares a land border with India OR · Applicant from a country which shares a land border with India and registered with Competent Authority in accordance with order mentioned above. <p>The definition of “Bidder” from a country which shares a land border with India shall be as in paragraph 8 of the above mentioned order. Further, all the guidelines mentioned to this above order shall be applicable to this Tender. Bidder shall carefully go through the same and ensure its eligibility as per the said order.</p>	<p>Bidder to submit a Declaration on Company’s Letter Head as per relevant Attachment of the RfP Document.</p>
4.	<p>Not to be blacklisted by Central/State/UT Government or any Public sector entities for the tender item/work</p>	<p>Bidder to submit Self Declaration on Company’s Letter Head as per relevant Attachment of the RfP Document.</p> <p>In case any Bidder is blacklisted/debarred by any regulatory/ statutory body/ Central/State/UT Government or any Public sector entities, then such Bidder is required to submit following details:</p> <ol style="list-style-type: none"> a) Date and validity of blacklisting/ debarment; b) Name of regulatory/ statutory body/ Central/State/UT Government or Public sector entities who has issued such blacklisting/ debarment; c) Reason for blacklisting/ debarment; d) Letter/Notification of blacklisting/ debarment. <p>Based on aforesaid details provided by the Bidders, EESL shall analyze and decide the case in line with applicable guidelines/notification of Government of India / EESL.</p>

B. Qualifying Requirements:

S. No.	Qualifying Requirements	Documents to be Submitted for Compliance by the Bidders
1	<p>QUALIFICATION OF THE BIDDER</p> <p>Qualification of bidder will be based on meeting the minimum pass/fail criteria specified below regarding the Bidder's Technical Experience and Financial QR as demonstrated by the Bidder's responses in its Bid.</p> <p>Subcontractors' technical experience and financial resources shall not be taken into account in determining the Bidder's compliance with the qualifying criteria. The bid can be submitted by an individual firm only (i.e., Sole bidder). Consortium/JV not allowed.</p>	
1.1	Technical Experience	
1.1.1	<p>Bidder should have successfully executed / completed 'Similar work' in the last 3 years, as on the originally scheduled date of bid opening (i.e., date of bid opening as per NIT).</p> <ul style="list-style-type: none"> Single Work Order valued not less than : For Package I / Zone I: Rs. 86.24 Lakhs For Package II / Zone II: Rs. 106.69 Lakhs For Package III / Zone III: Rs. 100.54 Lakhs For Package IV/ Zone IV: Rs. 91.75 Lakhs For Package V / Zone V: Rs. 165.21 Lakhs <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Two Work Orders each valued not less than: For Package I / Zone I: Rs. 53.90 Lakhs For Package II / Zone II: Rs. 66.68 Lakhs For Package III / Zone III: Rs. 62.84 Lakhs For Package IV / Zone IV: Rs. 57.34 Lakhs For Package V / Zone V: Rs. 103.26 Lakhs <p style="text-align: center;">OR</p>	<p>Documentary evidence shall be furnished along with the bid. Documentary evidence should be submitted in the form of copies of relevant work orders/ contract agreements/ purchase orders/LOAs/LOIs along with copies of any document in respect of satisfactory execution/ completion of each of those purchase orders/ work orders/contract agreements/LOAs/LOIs such as</p> <p>(i) Successful* completion certificate/s</p> <p style="text-align: center;">(OR)</p> <p>(ii) any other documentary evidences that can substantiate the successful execution of each of the purchase orders/ work orders/ contract agreements/LOAs/LOIs submitted.</p> <p>Work orders along with its evidence for successful completion / execution shall only be considered for evaluation.</p> <p><i>*Successful means certificate issued by the client without any adverse remarks.</i></p>

S. No.	Qualifying Requirements	Documents to be Submitted for Compliance by the Bidders
	<ul style="list-style-type: none"> Three Work Orders each valued not less than: For Package I / Zone I: Rs. 43.12 Lakhs For Package II / Zone II: Rs. 53.34 Lakhs For Package III / Zone III: Rs. 50.27 Lakhs For Package IV / Zone IV: Rs. 45.87 Lakhs For Package V / Zone V: Rs. 82.60 Lakhs <p>“Similar Work” means Supply & Installation of Solar Projects / Solar Power Generating System / Solar Rooftop System or Infrastructure Development like Land Development & Power Evacuation (LD & PE) of Solar Projects / Solar Power Generating System / Solar Rooftop System or Operation & Maintenance of for Solar Projects / Solar Power Generating System / Solar Rooftop System</p> <p>If Bidder is participating in more than one package, then the experience requirement shall be cumulative sum of the experience requirements of all quoted packages.</p> <p>For Example, if Bidder participates for Package I / Zone-I and Package II / Zone-II, then experience requirement for single work order value shall be at least Rs. 86.24 Lakhs + Rs. 106.69 Lakhs = Rs. 192.92 Lakhs</p> <p>The work “executed” mentioned above means the bidder should have achieved the criteria specified above even if the total contract is started earlier and/or is not completed/ closed. However, the work executed /completed must include “Similar work” as above.</p>	

S. No.	Qualifying Requirements	Documents to be Submitted for Compliance by the Bidders
	In case of orders under execution, the value of work executed as on the originally scheduled date of bid opening (i.e., date of bid opening as per NIT) as certified by the Client shall be considered. However, the work executed must include "Similar work" as above.	
1.2 Financial QR:		
1.2.1	<p>Bidders should have an Average Annual Turnover (ATO) during the last 3 Financial Years of at least.:</p> <p>For Package I / Zone I: Rs. 32.34 Lakhs For Package II / Zone II: Rs. 40.01 Lakhs For Package III / Zone III: Rs. 37.70 Lakhs For Package IV / Zone IV: Rs. 34.41 Lakhs For Package V / Zone V: Rs. 61.95 Lakhs</p> <p>If Bidder is participating in more than one package, then the ATO requirement shall be cumulative sum of the ATO requirements of all quoted packages. For example, if Bidder participates for Package I / Zone-I and Package II / Zone-II, then ATO requirement shall be at least Rs. 32.34 Lakhs + Rs. 40.01 Lakhs = Rs. 72.35 Lakhs</p> <p>Note: It may be noted that existence of Bidder for 1 FY will suffice the purpose. Accordingly, for calculation of ATO, the audited financial figures as available shall be considered, however, in case of ATO for less than 3 years the financial figures for available years shall be averaged out for 3 years (i.e., total available Turnover shall be divided by 3) for Financial QR compliance.</p>	<p>Duly authorized copies of audited financials for preceding last three Financial Years are to be submitted by the bidder.</p> <p>ATO means revenue from operations.</p> <p><i>The annual turnover of any Bidder will include realisation out of sales of Goods and Services but excludes any tax levied (Direct or Indirect) by any enactment of the Government of India</i></p>
1.2.2	<p>Bidder shall have liquid assets (L.A) or/ and evidence of access to or availability of credit facilities of not less than:</p> <p>For Package I / Zone I: Rs. 26.95 Lakhs</p>	<p>Duly authorized copy of audited financials for preceding last Financial Year is to be submitted by bidder. (Balance Sheet of immediate last financial year would be considered for this calculation.)</p>

S. No.	Qualifying Requirements	Documents to be Submitted for Compliance by the Bidders
	<p>For Package II / Zone II: Rs. 33.34 Lakhs For Package III / Zone III: Rs. 31.42 Lakhs For Package IV / Zone IV: Rs. 28.67 Lakhs For Package V / Zone V: Rs. 51.63 Lakhs</p> <p>If Bidder is participating in more than one package, then the LA requirement shall be cumulative sum of the LA requirements of all quoted packages. For example, if Bidder participates for Package I / Zone-I and Package II / Zone-II, then LA requirement shall be at least Rs. 26.95 Lakhs + Rs. 33.34 Lakhs = Rs. 60.29 Lakhs</p> <p>(Balance Sheet of immediate last financial year would be considered for this calculation.) Note: The LA for the bidder shall be calculated from the Audited Financial Statement as per the following:</p> <p>L.A= [Current Assets- Inventory]</p>	<p style="text-align: center;">OR</p> <p>Certification from Bank regarding availability of credit facilities of not less than:</p> <p>For Package I / Zone I: Rs. 26.95 Lakhs For Package II / Zone II: Rs. 33.34 Lakhs For Package III / Zone III: Rs. 31.42 Lakhs For Package IV / Zone IV: Rs. 28.67 Lakhs For Package V / Zone V: Rs. 51.63 Lakhs</p> <p>Such certificates should have been issued not earlier than three months prior to the date of originally scheduled date of bid opening as per NIT. Format of the certificate is enclosed at relevant Annexure of the RfP Document.</p>
1.2.3	<p>The net worth of the bidder in immediate last financial year should not be less than 100% of paid-up share capital or capital.</p> <p><i>Additionally, in case of Partnership/ Proprietorship/LLP, Networth may be considered negative in case closing capital of immediately preceding year is less than average closing capital of previous 3 financial years including immediate preceding year.</i></p> <p>Note: It may be noted that existence of Bidder for 1 FY will suffice the purpose. Accordingly, for calculation of Net worth the audited financial figures as available shall be considered. (e.g., for considering net-worth calculations, if bidder is in existence for 2 Years' and Audited Financial Statements for both years are available then average of 2 years shall be considered. Similarly, if only one-</p>	<p>Duly authorized copies of audited financials for preceding last three Financial Years are to be submitted by bidder.</p>

S. No.	Qualifying Requirements	Documents to be Submitted for Compliance by the Bidders
	year's Audited Financial Statements is available, the same will be considered for net-worth calculations). Same Philosophy shall be applicable for partnership firms also.	

C. Notes to the QR:

Sl. No.	
1.	<p>Financial QR: The Bidder shall also furnish documentary evidence/ declaration regarding Financial re-structuring of the company, if any. If the opening of the bids or the ascertainment of qualification is carried out after 30th September, the bidder shall be required to submit the complete annual reports together with Audited statement of accounts of the company for the immediately preceding Financial Year except in cases where the Board of the Company/ Registrar of Companies has granted extension of time for finalization of accounts, for which the bidder has to submit requisite documentary evidence. In case of Bidder's failure to submit the same along with the Bid or subsequently pursuant to Clarification, the Bid shall be rejected.</p> <p><i>In case of proprietorship/ partnership (as applicable as per sl.no-1 of Eligibility Criteria), ITR along with management signed accounts to be submitted, if audit is not required.</i></p> <p><i>In case of Proprietor / Partnership firm, where auditing of Balance Sheet is not required, the date of ITR (if extended) to be considered. Proof of extension from the Income Tax Department to be submitted by the bidder.</i></p>
2.	<p>In case any Bidder doesn't meet cumulative requirement as specified under QR criteria for the quoted Packages, the Price Bids shall be opened in the descending order of the ATO value of the Packages/Lots i.e. Package V / Zone V shall be opened first, Package II / Zone II shall be opened second, Package III / Zone III shall be opened third, Package IV / Zone IV shall be opened fourth and Package I / Zone I shall be opened last. However, Price Bid of Bidder for only those Package (s) /Lot (s) shall be opened for which he is considered to meet the combined /individual requirement for the package(s)/Lot(s) as per the QR. However, EESL reserves the right to decide the sequence of opening of Price Bids based on the response received under the respective Packages.</p>
3.	<p>For Start-up firms as per Gazette Notifications dated 17-Feb-2016, G.S.R. 180 (E) and MSEs, relaxation will be given in this tender as per Clause No. 2.4 of Section-2 of this tender.</p>
4.	<p><u>In case of holding company:</u> - The holding subsidiary relationship should be in existence for at least one year as on the date of submission of the bids.</p>

Sl. No.	
	<ul style="list-style-type: none"> • “In case bidder is not able to furnish its audited financial statements on standalone entity basis, the unaudited unconsolidated financial statements of the bidder can be considered acceptable provided the bidder furnishes the following further documents on substantiation of its qualification: • Copies of the unaudited unconsolidated financial statements of the Bidder along with copies of the audited consolidated financial statements of the Holding Company with a letter of undertaking from holding company supported by Board pledging unconditional and financial support. Irrevocable in the format enclosed in Attachemnt-9 of Section-6, Forms & Procedures. • A certificate from the CEO/CFO of the holding company, stating that the unaudited consolidated financial statements from part of the Consolidated Annual Report of the Company. • In case a bidder does not satisfy the financial criteria, the holding company would be required to meet the stipulated turn over requirements, provided that the net worth of such holding company as on the last day of the preceding financial year is at least equal to or more than the paid-up share capital of the holding company. In such an event, the bidder would be required to furnish along with its bid, a letter of Undertaking from the holding company, supported by the Board Resolution, as per the format enclosed in the bid documents (Attachemnt-9 of Section-6, Forms & Procedures), pledging unconditional and irrevocable financial support for the execution of the Contract by the bidders in case of award. • In case the Bidder meets the requirement of Net worth based on the strength of its Subsidiary(ies) and/or Holding Company and/or Subsidiaries of its Holding Companies wherever applicable, the Net worth of the Bidder and its Subsidiary(ies) and/or Holding Company and/or Subsidiary(ies) of the Holding Company, in combined manner should not be less than 100% of their total paid up share capital. However individually, their Net worth should not be less than 75% of their respective paid up share capitals.” • The supporting documents in support of above Qualification Requirement should be submitted along with tender document, otherwise Techno-commercial offer submitted by the bidder is liable to be considered as non-responsive. • All the required documents must be properly annexed and submitted as mentioned above with necessary details in brief

xxxxxxxxxxxxxxxx The End xxxxxxxxxxxx

**Part-C of Section-4
(Technical Specifications)**

Abbreviations:

CEA - Central Electricity Authority

COD - Commercial Operations Date of the Solar Power Generating System

DC Capacity shall mean the total solar PV array capacity of the solar PV modules installed in a project.

DISCOM means Power Distribution Company of the state, responsible for distribution of Electrical.

IEC - International Electro-technical Commission

ILAC - International Laboratory Accreditation Cooperation

“Interconnection point” means point of interface of solar power plant facility with distribution system at which the Solar Energy is delivered to the PROCURER’s System and such interface point is 33 or 11 kV side of the pooling substation / sub-station within the premises of the solar power plant facility in the switchyard of solar power plant.

kWh - Kilo-Watthour.

LVRT - Low Voltage Ride Through

HVRT - High Voltage Ride Through

MWp - Mega-Watt Peak

“MPPT or Maximum Power Point Tracking” shall mean algorithm that is used for extracting maximum available power from PV module under certain conditions.

MSEDCL - Maharashtra State Electricity Distribution Company Limited

NTP - Notice to Proceed

OEM - Original Equipment Manufacturer

O&M - Comprehensive Operation and Maintenance of the Facilities.

PPA - Power Purchase Agreement” for sale of energy generated from the project.

PPE - Personal Protective Equipment

RM - length in running meters.

“Solar Inverter” shall mean inverters that convert electricity generated from solar PV panels from DC to AC.

“System Integrator” shall mean the agency who had carried out the Design, Engineering, Supply,

Installation, Testing & Commissioning and O&M of Grid connected solar PV based Power Plants.

TS - Technical Specifications

ROD - Restored Operation Date

1. Project Background

Energy Efficiency Services Limited (EESL), a joint venture company of 4 CPSU's (NTPC Ltd., REC Ltd., PFC Ltd., PGCIL) of Ministry of Power, Govt. of India had established Small Solar PV Based power plants with capacities approx. 0.5to 10MWp in the open, unused lands in the premises of existing substations of MSEDCL. The 48 sites of distributed solar plant of cumulative capacity 51.89 MWp out of which some are operational, and some are under shutdown conditions (As per Annexure A). Out of these 48 sites, the shutdown sites would require refurbishment & restoration for the revival of the solar plant and other sites need to be refurbished to the best of the health so that the plants can operate for the remaining period of the plant life. The project will also include Operation and Maintenance for the remaining period up to 10 years of operation from the date of commissioning of the 48 distributed solar sites (51.89 MWp) in Maharashtra.

2. Project Scope and Technology Component Selection

2.1 Introduction

Under this programme, EESL established solar PV based small power plants/Solar Power Generating Systems (SPGS) with capacities approx. 0.5 MWp to 10MWp on the open, unused lands in the premises of existing substations of MSEDCL.

This RfP is limited only to "Refurbishment & Restoration for the revival of the plants, Operation and Maintenance for the remaining period up to 10 years of operation from the date of commissioning of the 48 sites of distributed solar plant of cumulative capacity 51.89 MWp in the State of Maharashtra". Project should be in accordance with the technical specification as mentioned in the Specifications part.

2.2 Project Scope

The scope of this RfP covers:

The Scope of Work under this package, includes Refurbishment & restoration for the revival of the solar plant with Operation and Maintenance for the remaining period up to 10 years of operation from the date of commissioning of the 48 sites of distributed solar plant of cumulative capacity 51.89 MWp in Maharashtra including site surveys, repair/replacement, procurement & supply of defective equipment and materials (except solar PV modules and Inverters). installation of components and incidentals, insurance at all the stages, erection, testing and re-commissioning of Grid Interactive Solar Power Generating System (s) (small solar power plants) of capacity ranging from 0.5 MWp to 10MWp and performance demonstration with associated equipment and materials along with existing associated transmission system up to 11 kV at designated substations on turnkey basis in the state of Maharashtra, India and comprehensive operation and maintenance of the plant for the remaining period up to 10 years of operation from the date of commissioning . **The scope shall be covered under "as is where is" basis without any warranty except solar PV module.**

2.2.1 The equipment and materials for refurbishment and restoration of 51.89 MWp Grid Interactive Solar Power Generating System (s) with associated system (typical) shall include but not be limited to the repair, replace, receipt, unloading, storage, erection, testing and recommissioning of all supplied/required material for the following:

- I. Testing of solar PV modules and replacement of defective modules (For the first time, EESL will supply the modules for missing and broken units as per the site requirement by contractor).
- II. Repair/replacement/preventive maintenance of Array Junction boxes, distribution boxes and fuse boxes: MCBs, Surge Arrestors with string monitoring units and with proper lugs, glands, ferrules, terminations and mounting structures.
- III. Repair/replacement/preventive maintenance of DC and AC cables of appropriate sizes with adequate safety and insulation.
- IV. Repair/replacement/preventive maintenance of Power Conditioning Units (PCU)/Inverter (String or Central grid-tie EESL will do preventive maintenance and handover to the contractor during the restoration stage and contractor will bear the warranty for the remaining period of the O & M i.e. up to 10 years from commercial operation date. However, if there is any warranty period remaining from the OEMs i.e. inverter manufacturers, the same will pass on to the contractors from EESL end), panel with required data monitoring compatibility, common AC power evacuation panel with bus bars and circuit breakers LT & HT Power Interfacing Panels, Plant Monitoring Desk, AC & DC Distribution boards.
- V. Repair/replacement/preventive maintenance of LT Power and Control Cables including end terminations and other required accessories for both AC & DC power.
- VI. Repair/replacement/preventive maintenance of Internal 415V interconnection & indoor feeder panels to cater auxiliary needs of Plant.
- VII. Repair/replacement/preventive maintenance of 11 kV indoor/ outdoor panels having incoming and outgoing feeders with VCBs, CTs, PTs, Bus bars, cables terminals kits and Main Bus. Each bay shall consist of VCB, CT, Isolators with earth switch, Las and PT's etc.
- VIII. Repair/replacement/preventive maintenance of Weather monitoring system repairing and testing (class II pyranometer, temperature and wind sensor).
- IX. Repair/replacement/preventive maintenance of Data acquisition system / remote monitoring facilities. Provision for specific data transfer to the State Load Dispatch Centre (SLDC) may be provided as per the DISCOMs requirement.
- X. Repair/replacement/preventive maintenance of Lightning arrestors for entire plant area.

- XI. Repair/replacement/preventive maintenance of PVC pipes, cable conduits, cable trays and accessories/trenches.
- XII. Repair/replacement/preventive maintenance of Earthing of the entire plant as per relevant standards.
- XIII. Repair/replacement/preventive maintenance of Control room equipment related to Solar Power Generating Systems (SPGS).
- XIV. Testing, maintenance and monitoring of equipment(s)/plant(s). Spares & consumables, as required, for the remaining period up to 10 years of operation from the date of commissioning of the 48 distributed solar sites (51.89 MWp) in Maharashtra.
- XV. Necessary CCTV cameras at suitable locations in the plant area in order to capture any trespassing, theft & pilferage etc. With 3 months recording facility backup of UPS, PCS.
- XVI. Safety and security of the plants. Plant boundary wall /fencing with entry gate to be repaired and restore wherever required.
- XVII. Repair/replacement/preventive maintenance of Fire detection & protection system in the plant area. Adequate number & types of fire extinguishers. All safety gadgets during Construction and O&M period including but not limited to, anti-static rubber mats of appropriate grade, PPE, rubber gloves and shoes etc.
- XVIII. First Aid kit at plant and PPE kit with all safety requirements.
- XIX. Refurbishment and restoration of 48 nos./zone wise Grid Interactive Solar Power Generating System (s) and its associated civil, structural, electrical & mechanical auxiliary systems includes preparation and documentation (in hard/soft copies) revised as built drawing of revised/existing single line diagrams and installation drawings, manuals, electrical layouts, erection key diagrams, electrical and physical clearance diagrams, redesign as built drawing calculations for Earth- mat, Bus Bar & Spacers indoor and outdoor lighting/ illumination etc. design memorandum, GTP and GA drawings for the major equipment & facilities, design basis & calculation sheets, and other relevant drawings and documents required for engineering of all facilities within the fencing to be provided under this contract, are covered under contractor's scope of work. The contractor has to keep and maintain record of the project design document with all the necessary technical details including simulation reports.
- XX. Estimation and determination of the plant generation on daily basis in form of look ahead scheduling of power output.
- XXI. Any other equipment / material, not mentioned but essentially required to restore the small solar power plants in all respects and for the healthy operation of the plant for remaining period of the plant life.

- XXII. Contractor has to carry out the site survey of the plants to check the existing physical and technical condition of the plant for required material “ as it is where is” for refurbishing and restoration, operation and maintenance for the remaining period up to 10 years of operation from the date of commissioning of the plant.
- XXIII. Requisite testing facilities at site, safety requirements and provision for other things that may require successful operation and maintenance of plant and equipment.
- XXIV. In case of absence of the standards for any of the equipment for refurbishment/restoration, the contractor may comply to the latest CEA/CERC/State Grid code.
- XXV. Contractor will have to carry out the maintenance, repair and testing of all earth pits.

2.2.2 During the O&M period, the Contractor Shall,

- I. Keep the measured daily generation, import, auxiliary, fault log data at regular intervals and provide the same to EESL/DISCOM in electronic form compatible in excel format. The right to use the data shall remain with EESL/DISCOM. Generation data shall be provided in the form of continuous day around generation curve. The plant outage data (due to solar plant or DISCOM grid) shall be maintained and submitted to EESL/DISCOM on monthly basis.
- II. Maintain materials, spares, tools & tackles, logistics and accessories, which are necessary or usual for satisfactory and trouble-free operation and maintenance of the Solar Power Generating System(s).
- III. Contractor will have to take insurance of overall plant including Inverter(s), PV Solar panels for full contract period.
- IV. Auxiliary supply for the equipment and plant and water for cleaning solar panels lies in the contractor’s scope.

2.2.3 The contractor shall carry out the site surveys and inspection before participation in the tender and quote in bid for refurbishment and restoration with supply and service, operation and maintenance work scope and cost for solar power generating plants.

2.2.4 All approvals as necessary for the O&M as per the latest regulations / guidelines for which DISCOM will facilitate the bidder.

2.2.5 The Contractor shall arrange deployment of qualified and suitable manpower and required necessary tools, logistics, spares & consumables during refurbishment, restoration, recommissioning/startup and O&M.

2.2.6 Complete responsibility of total Operation & Maintenance of Solar Power Generating Systems including all the infrastructure developed as a part of restoration Contract

for the remaining period up to 10 years of operation from the date of commissioning of the 48 sites of distributed solar plant of cumulative capacity 51.89 MWp. Any cost(s) associated with the project for successful recommissioning/re-startup and O&M during the project period shall be borne by the contractor.

2.2.7 All approvals, equipment, item and works which are not specifically mentioned in this document but are required for successful completion of work including construction, recommissioning, O&M of Solar PV Power Plant (s) in every respect and for safe and efficient construction & erection, operation and guaranteed performance are included in the scope of the Contractor.

2.2.8 Submission of following documents, drawings, data, and engineering information to EESL/DISCOM or its authorized representative for review and approval in hard copy and soft copy from time to time as per project restoration schedule.

- I. Detailed technical specifications of all the equipment.
- II. Schematic diagram for entire electrical system including single line diagrams (SLD)
- III. Revised as built drawing.
- IV. Detailed site wise EHS plan and ESMP.
- V. Detailed risk assessment and mitigation plan, if any.
- VI. Test reports (for type, acceptance, and routine tests) of equipment.
- VII. O&M Instruction's manuals and its drawings.
- VIII. As-built drawings / documents and deviation list from good for construction (GFC).
- IX. O&M plans, schedules, and operational manuals for all equipment etc.
- X. Weekly site work progress report with catch-up plan(s), as necessary to monitor actual timelines of the project during restoration and operation and maintenance period along with the real time snap shots during the time of restoration/refurbishment.
- XI. Signed and stamped site wise project completion report from the contractor (format under Appendix-5)

2.2.9 The Contractor shall provide a detailed training plan for all operation, maintenance procedures, which shall after approval by EESL/DISCOM form the basis of the training program. The contractor shall also provide training to DISCOM's nominated staff.

2.2.10 The Contractor shall employ and coordinate the training of contractors' personnel who will be qualified and experienced to operate and monitor the facility and to coordinate operations of the facility with the grid system.

2.2.11 Establishing a system to maintain an inventory of spare parts, tools, equipment, consumables and other supplies required for the facility's hassle-free operation.

2.2.12 Adequate and seamless insurance coverage during restoration period and O&M period to cater all risks related to restoration and O&M of Plant to indemnify the EESL/DISCOM.

- 2.2.13** Maintain at the facility accurate and up-to-date operating logs, records and monthly reports regarding the generation, Operation & Maintenance of facility. Contractors shall also submit monthly energy bills (export, import etc.) to EESL/DISCOM before 5th day of every month.
- 2.2.14** Perform or contract for and oversee the performance of periodic overhauls or maintenance required for the facility in accordance with the recommendations of the original equipment manufacturer (OEM).
- 2.2.15** Procurement for spares parts, overhaul parts, tools, equipment, consumables, etc. required to operate and maintain the project in accordance with the prudent utility practices and having regarded warranty recommendations during entire O&M period.
- 2.2.16** The contractor shall transfer (if any) and handover all the SPGS assets in good condition on completion of the contract period to EESL with all the remaining warranties.
- 2.2.17** The Contractor shall, if advised by the Employer, clear all the debris / scrap / equipment in line with Govt. of India's guidelines and rules for waste management and disposal of waste, at the end of the 10 years of O&M period at no extra cost to EESL.
- 2.2.18** Maintain and keep all administrative offices, roads, tool room, stores room, equipment, clean, green and in workable condition.
- 2.2.19** Maintain housekeeping at plant.

All the type test reports along with Material Dispatch Clearance Certificate (MDCC) and MSDS for all applicable products & equipment and cables are to be submitted by the Contractor prior to the dispatch of the same. Contractor has to provide the type test report for all the equipment/components used under this contract. If the equipment is not type tested, the Contractor has to ensure conduction of such test and supply the type test Report to the EESL/DISCOM without any additional cost.

2.3 Required Documentation

Complete documentation shall be provided for the assembling, testing, installation, recommissioning, start-up, operation, maintenance, repair and disposal of the solar power generating system components.

The bidder shall provide the following minimum documentation:

1. Project document containing completion certificate signed by site engineer with available detailed drawings, simulation reports, etc.
2. Technical data sheets of newly supplied items.

3. Test reports and recommissioning protocols.
4. Installation, operation and maintenance manual

2.4 Operation & Maintenance (O&M)

The contractor shall be entrusted to carry out the total O&M activities of the Solar Power Generating System(s) upto the interconnection point (Cubical meter) as per the scope of work for the remaining period up to 10 years of operation from the date of commissioning of the plant of the 48 distributed solar sites (51.89 MWp).

2.4.1 The contractor shall be responsible for all the required activities for the successful reconstruction, running, guaranteed energy generation & maintenance of the Solar Power Generating Systems covering:

- I. Deputation of qualified and experienced engineers Supervisors & Technicians.
- II. Successful running of Solar Power Plant for guaranteed energy generation as per SLA.
- III. Co-ordination with DISCOM/other statutory organizations as per the requirement on behalf of EESL for Joint Metering Report (JMR), furnishing generations schedules as per requirement, revising schedules as necessary and complying with grid requirements updated time to time.
- IV. Monitoring, controlling, troubleshooting, maintaining of logs & records, registers.
- V. Supply of all spares, consumables and fixing / application as required.
- VI. Supply & use of spares, consumables, tools, logistics and skilled manpower throughout the maintenance period as per recommendations of the equipment manufacturers and requirement of the Plant & other associated infrastructure developed under the scope of restoration works.
- VII. Conducting periodical checking, testing, overhauling, preventive and corrective action.
- VIII. Upkeeping of all equipment, building, roads, Solar PV modules, inverters etc.
- IX. Arranging & updating any licenses/permits required for successful operation of plant (s).
- X. Submission of periodical reports to EESL/DISCOM on the energy generation & operating conditions of the power plant.
- XI. Furnishing generation data monthly to EESL/DISCOM by 5th day of every month.

- XII. Contractor shall be responsible for making all the payments towards renewal of all the permits / clearances etc. (if required) to the Government bodies /DISCOM /STU for smooth operation of the project.
- XIII. Periodic cleaning (arrangement of water for cleaning lies in the contractor's scope) of solar modules as per the recommendations of OEM & existing site conditions.
- XIV. Repair & replacement of components of SPGS including all other associated infrastructure developed as a part of restoration Works which has gone faulty or worn-out components including those which has become inefficient.

2.4.2 Continuous monitoring the performance of the Solar Power Generating Systems and regular maintenance of the whole system including Modules, inverters, transformers, outdoor/indoor panels/ kiosks and other infrastructure developed as a part of restoration works in order to extract & maintain maximum energy output from the SPGS & serviceability from the associated infrastructure.

- I. Preventive and corrective maintenance of the complete Solar Power Plant and associated infrastructure developed as a Part of restoration work, including supply of spares, consumables, repair & replacement of wear and tear, overhauling, replacement of damaged modules, invertors, inverters and insurance covering all risks (Fire & allied perils, earth quake, terrorists, burglary, and others) as required, for a period of 10 years from the date of commissioning of the 48 sites of distributed solar plant of cumulative capacity 51.89 MWp. The period of Operation and Maintenance will be deemed to commence from the date of Operational acceptance as per clause 2.5 . EESL may extend the O&M period beyond the project duration at mutually agreed terms and conditions.
- II. All the equipment required for restoration, testing, recommissioning, startup and O&M for the healthy operation of the SPGS must be calibrated, time to time, from the NABL accredited labs and the certificate of calibration must be provided prior to its deployment.
- III. Water to clean Solar panel during O&M period is in contractor's scope.
- IV. Security of plant is in the scope of contractor during O&M period.

2.5 Operational Acceptance

For operational acceptance PR should be shown minimum of 70% however, PR should be tested as actual as per the test procedure and same will be accepted if PR is $\geq 70\%$ for initial recommissioning acceptance. The PR will be measured at Inverter output level during peak radiation conditions.

2.5.1 Test Procedure for Operational Acceptance

Performance Ratio as determined through the PR Test Procedure specified here should not be less than 70% for Operational Acceptance Test.

NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002	SECTION-4 (Part-C (TS))	Page 11 of 98
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The Performance Ratio Test to prove the guaranteed performance parameters of the power plant shall be conducted at site by the Contractor in presence of the EESL. The Contractor's Engineer shall make the plant ready to conduct such tests. The Operational Acceptance Test shall be commenced, within a period of 7 days (1 Week) after successful recommissioning and there will be continuous monitoring of the performance for 30 days.

Any extension of time beyond the above 30 days shall be mutually agreed upon. These tests shall be binding on both the parties to the Contract to determine compliance of the equipment with the guaranteed performance parameters. This monitoring will be performed on the site under the supervision of the EESL's engineer.

The test will consist of guaranteeing the correct operation of the plant over 30 days, by the way of the efficiency rate (performance ratio) based on the reading of the energy produced after restoration and refurbishment and O & M of Solar PV Plant (site wise). During this period of 30 days, any 10 (ten) instances of 15 (fifteen) minutes shall be taken to calculate the instantaneous Performance Ratio of 15 minutes block as per the formula given below in illustration. If the PR of these five instances is $\geq 70\%$, then Operational Acceptance Test (OAT) shall be considered successful.

PR shall be demonstrated against the installed DC Capacity (Inverter level)

Illustration

The Efficiency or performance ratio (PR) of the PV Plant is calculated as follows (according to IEC 61724)

$$\text{Performance Ratio (PR)} = Y_A / Y_R$$

$$Y_A = E_{ac} / P_{Nom}$$

$$Y_R = I_R \text{ Site} / I_R \text{ STC}$$

Where,

Y_A = Final PV system yield (representing the number of hours that the system would need to operate at its rated output power P_{Nom} to contribute the same energy to the grid as was monitored).

Y_R = Reference yield (representing the number of hours during which the solar radiation would need to be at STC irradiance levels in order to contribute the same incident energy as was monitored).

E_{ac} = AC energy injected into the grid during a clearly specified amount of time (kWh).

P_{Nom} = Installed nominal peak power of modules (Nameplate rating at STC) (kWp);

$I_R \text{ Site}$ = Irradiation on the module plane of array during a clearly specified amount of time (measured with a pyranometer installed on the plane of array, POA) (kWh/sq. m).

I_{RSTC} = Irradiance at STC (kW/ sq. m); 1000W/m²

Monitoring System for PR Verification The following instrumentation will be used to determine the Solar Plant Performance:

- Power Meter at the delivery point.
- Power Meter for each inverter for reference only.
- One no. calibrated pyranometer to determine irradiance on the plane of array (with a target measurement uncertainty of ± 2 , supplied and installed by Contractor).
- Two nos. thermocouples to measure module temperature with a measurement uncertainty of ± 1 °C, supplied and installed by Contractor.
- Shielded ventilated thermocouple with a measurement accuracy of ± 1 °C. · An anemometer mounted on a 10m mast to measure wind speed (without additional shadowing on modules supplied and installed by Contractor).
- Data measurement shall be witnessed in the format mutually agreed before the start of PR test by the employer and the contractor jointly for the said period.

- The Contractor shall show the specified PR for Operational Acceptance.

The procedure for Performance Guarantee Test (PGT) - cum- Final Acceptance Test- shall be as follows:

1. A weather station with a calibrated pyranometer shall be installed by the Contractor at the location mutually agreed by the Contractor and EESL. (The test report for the calibration shall be submitted by the Contractor for approval by EESL. The calibration should be traceable to a national/international laboratory). The output of this pyranometer for shall be logged in the Data logger system.
2. In case the pyranometer is found to be working erratically then immediately the Contractor shall take necessary steps to rectify and/or recalibrate the instrument to the satisfaction of EESL. However, for the dispute period for which such error has occurred and until the instrument is recalibrated to the satisfaction of EESL, data from any one of the following lists of sources as decided by EESL will be used:
 - i. A separate pyranometer installed by the EESL contractor near the site, if available
 - ii. Average of two closest solar power projects, as identified by EESL
 - iii. Nearest MNRE weather station

2.5.2 Test Procedure for Operational Acceptance

- I. Operation part consists of deputing necessary manpower required to operate the Solar Power Generating System (s) at the full capacity. Standard Operation procedures (SOPs) such as preparation to starting, running, routine operations with safety precautions, monitoring etc., shall be carried out as per the manufacturer's instructions & best engineering practices to have trouble free & optimum operation of the complete system with maximum possible energy generation.
- II. Daily work of the operation and maintenance in the Solar Power Generating System (s) involves periodic cleaning of Modules, logging the voltage, current, power factor, power and energy output of the Plant at different levels along with fault/breakdown log. The operator shall also note down time/failures, interruption in supply and tripping of different relays, reason for such tripping, duration of such interruption etc. The operator shall record monthly energy output, down time (due to solar power plant and grid), fault logs & their Root Cause Analysis reports etc. Breakdown time to be signed by responsible substation engineer on same day or next day.

2.5.3 Maintenance

- I. The contractor shall carry out the periodical plant maintenance as given in the manufacturer's service manual and perform operations to achieve committed generation.
- II. Regular periodic checks of the modules, inverters and other switchgears shall be carried out as a part of routine corrective & preventive maintenance. In order to meet the maintenance requirements stock of consumables are to be maintained as well as various spare as recommended by the manufacturer.
- III. Maintenance of other major equipment involved in Solar Photovoltaic Power Generating System are transformers, underground/ overhead cables, indoor/ outdoor VCB/ SF6 kiosk, associated switchgears, other fixtures & components metering panel, fire protection system & other infrastructure developed as a part of scope of Work during development of Plant. Particular care shall be taken for outdoor equipment to prevent corrosion. Denting and painting to be done for outdoor equipments on time to time and for indoor equipments as per requirement. Earth resistivity of plants as well as individual earth pit is to be measured and recorded every month. If the earth's resistance is high, suitable action is to be taken to bring down the same to required level.
- IV. A maintenance record is to be submitted to operation/engineer-in-charge to record the regular maintenance work carried out as well as any breakdown maintenance along with the date of maintenance reasons for the breakdown's steps have taken to attend the breakdown duration of the breakdown including action taken to avoid the same in future. Horizontal deployment to be done.
- V. The Schedules will be drawn such that some of the jobs other than breakdown, which may require comparatively long stoppage of the power plant, shall be carried out preferably during the non-sunny days/night. An information shall be provided to Engineer-in-charge for such operation prior to start.
- VI. The Contractor will attend to any breakdown jobs immediately for repair/replacement /adjustments and complete it at the earliest working round the clock. During breakdowns (not attributable to normal wear and tear) at O&M period, the Contractor shall immediately report the accidents, if any, to the Engineer In-charge showing the circumstances under which it happened and the extent of damage and or injury caused.
- VII. The Contractor shall comply with the provision of all relevant acts of Central or State Governments including but not limited to Payment of Wages Act 1936, Minimum Wages Act 1948, Liability Act 1938, Workmen's Compensation Act 1923, Industrial Dispute Act 1947, Maturity Benefit Act 1961, Mines Act 1952, Employees State Insurance Act 1948, Contract Labour (Regulations & Abolishment) Act 1970, Electricity Act 2003, Grid Code, Metering Code, MNRE guidelines or any modification thereof or any other law relating whereto and rules made there under or amended from time to time.
- VIII. The contractor shall at his own expense provide all amenities to his workmen as per applicable laws and rules.

- IX. The Contractor shall ensure that all safety measures are taken at the site to avoid accidents to his or his sub-contractor or EESL/DISCOM's Workmen.
- X. If negligence / mal-operation of the contractor's operator results in failure of equipment such equipment should be repaired and replaced by contractor at free of cost.

2.5.4 Quality, Spares & Consumables

In order to ensure the longevity and safety of the core equipment and optimum performance of the system the contractor should use only genuine spares of high quality standards.

2.5.5 Testing Equipment, Tools and Tackles

The Contractor shall arrange for all the necessary testing equipment, tools and tackles for carrying out all the construction, operation and maintenance work covered under this contract. All the instruments are required to be calibrated from NABL accredited lab before put in use. The certificate of the same shall be submitted to EESL/DISCOM for verification.

2.5.6 DISCOM's Scope of Work

- I. DISCOM may assist to contractor for availing the following during restoration/refurbishment of plant and O&M period, however, to arrange water and auxiliary supply and security of the solar PV plant lies in contractors' scope
- II. DISCOM will maintain the approach road to the site and periphery road.
- III. DISCOM will maintain fencing to the land plot.
- IV. DISCOM will maintain complete evacuation line along with ABT meters (including metering panel) from the switchyard of solar power project at DISCOM substation. Energy meter (ABT) has been located at switchyard of the Solar Power Project(s). O&M of this evacuation system will be carried out by DISCOM.
- V. Maintenance of bays and installation of all necessary associated equipment's and protection & metering system at interconnection point at DISCOM substations.
- VI. DISCOM will provide the support to contractors for grid connectivity & SLDC clearance.
- VII. Evacuation voltage for the solar PV plants is at 11kV for all plants.

2.5.7 Construction Power & Water Supply & Security of Plant

- I. Cost of electricity and water required during restoration/refurbishment, startup and O&M shall be payable by the contractor. For restoration, temporary connection for restoration/startup of plant power from DISCOM/suitable supply source shall be arranged by the contractor as per applicable tariff.
- II. The EESL/DISCOM shall not provide facility for storage of material, and accommodation for labours at site. The Contractor shall make his own arrangement for the above.
- III. Plant security during restoration, startup and O&M for contract period is in contractor's scope.

3. Selection of Bidder

Selection of bidder will be done on the technically acceptable lowest evaluated cost basis of Price-Bid. Price bid should be unconditional, failing which the bid shall be summarily rejected. The price to be quoted as per the prescribed format of price bid. Price will remain firm till the execution of the contract.

4. Rejection of Materials

The EESL/DISCOM's decision in regard to the quality of the material and workmanship will be final. The Contractor at its own cost and risk without any compensation shall immediately remove any material rejected by the EESL/DISCOM from the Site of work.

5. Labour Engagement

The Contractor shall be responsible to provide all wages and allied benefits to its labours engaged for execution of the project work and also to carry out Operation & Maintenance service. The Contractor shall remain liable to the authorities concerned for compliance of the respective existing rules and regulations of the government for this purpose and shall remain liable for any contravention thereof. The contractor is encouraged to use local manpower as per the local statutory (labour) requirement, if any.

6. Training of DISCOM's Personnel

On successful recommissioning/startup of the Plant, the Bidder shall provide training on Plant operations and maintenance to a team (Engineers and Technician/ Operators) as nominated by EESL/DISCOM, within first three months of Operation of Plant.

7. Authorized Test Centers for test Certificates

The transformers/ inverters/ cables and other Balance of system equipment deployed in the solar PV power Plant shall have valid test certificates for their qualification as per above specified IEC/ IS Standards by one of the NABL Accredited Test Centers in India. In case of module types/ equipment for which such Test facilities may not exist in India, test certificates from reputed ILAC Member body accredited Labs abroad (with proof of accreditation) will be acceptable.

8. Solar Power Generating System (s) Performance Guarantee

- a. The acceptance of the plant after recommissioning of the Plant will be evaluated as per Clause 2.5 Operational Acceptance.
- b. During O&M contract, the Plant performance will be evaluated based on guaranteed energy generation, as per Clause 12.
- c. Bidders are expected to make their own study of solar radiation profile and other related parameters of the area & make sound commercial judgment about the plant performance evaluation. It shall be the responsibility of the Bidder to assess the corresponding solar insolation values and related factors of solar Plant along with expected grid availability.
- d. The performance of Plant may also be verified by the contractor based on minimum CUF demonstrated at the end of every year from the date of Restoration and Operational Acceptance till the culmination of the O&M period. During this period, the contractor shall operate and maintain the Plant with full reliability and upkeep.

9. Operation & Maintenance

The Operation and Maintenance shall be comprehensive. The maintenance service provided shall ensure project functioning of the Solar PV system as a whole and Power Evacuation System to the extent covered in the Contract. All preventive / routine maintenance and breakdown / corrective maintenance required for ensuring maximum uptime shall have to be provided. Accordingly, the Comprehensive Operation & Maintenance shall have two distinct components as described below:

A. Preventive / Routine Maintenance:

This shall be done by the Contractor regularly and shall include activities such as cleaning and checking the health of the Solar PV system, cleaning of module surface, tightening of all electrical connections, and any other activity including the associated civil works, wear and tear that may be required for proper functioning of the Solar PV system as a whole. Necessary maintenance activities, Preventive and Routine for transformers and associated switch gears and transmission line also shall be included.

B. Breakdown / Corrective maintenance:

Whenever a fault/failure/breakdown/malfunctioning occurs, the Contractor has to attend to rectify the fault & the fault must be rectified within the 48 hours from the time of occurrence of fault, failing which LD will be applicable in line with Clause a.16 'Liquidated Damages' depending upon nature of fault/failure/defect/breakdown/malfunctioning. The contractor must maintain all the records pertaining to such faults/failure/breakdown/malfunctioning and necessary measures taken. The date of Comprehensive Operation & Maintenance Contract period shall begin on the date of Successful demonstration of guaranteed energy generation i.e. operational acceptance. However, operation of the Power Plant

means operation of system as per bid and workmanship in order to keep the project trouble free covering the guarantee period. The contractor must demonstrate the committed PR and CUF at the end of every year in accordance with commitment made in the Techno- Commercial Enclosures of the Bid.

C. Establishment in Maharashtra

Contractor shall have an office / establishment with all required facilities in Maharashtra. In case the contractor does not have an establishment (office) in Maharashtra, then the contractor needs to establish the same for executing and maintaining the solar power projects. The contractor has to submit the organogram chart clearly indicating the roles and responsibilities of all the staff and submit it to EESL for approval.

D. New technology / upgradation

The contractor is responsible for replacement of equipment (if any) during the O&M period free of cost. The contractor is free to use the commercially established new technology (ies)/ upgrade the existing equipment used in the solar power project during the O&M period. In such a case, the contractor plans the activities in a manner without effecting the Plant performance as per the Clause 2.5 Plant Performance Evaluation of this document.

10. Project Timelines:

The project would be developed in two parts.

1. **Part I:** Site Surveys, submission of list of required items Minutes of Meet, new procured items quality and warranty certificate documents. Refurbishment, restoration, recommissioning and startup of the Solar power generation plant(s).
2. **Part II:** O&M of Solar power generation plant for the remaining period of the operation from 10 years after date of commissioning.

Part I:

The Contractor shall submit the plan for carrying out site restoration/refurbishment and startup work within 04 days from the date of issuance of LoA. The contractor shall complete the site surveys of all the allotted sites within one week. from the date of intimation of site details to the successful bidder. Further the sites would be handed over to successful bidder in a zone manner. The contractor shall submit the final, revised Electrical Single Line Diagram (SLD), site survey reports required items and project document as per the timelines shown below:

*Contractor to strictly adhere to the timelines mentioned above. In case of any failure to meet the above timelines, a suitable action shall be taken against the contractor for any delay in completion of the restoration, including the right to cancel or termination of contract at EESL's discretion.

Part II:

NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002	SECTION-4 (Part-C (TS))	Page 19 of 98
---------------------------------------------------------------------------------------	----------------------------	---------------

The date of handover of Solar site (s) to the contractor for restoration of Solar Power Generating System (SPGS) shall be treated as Zero date. The contractor shall submit the detailed restoration execution plan within one week (07 days) from the date of issuance of NTP. Also, execution plan as per Appendix- 7 is to be submitted by successful bidder on weekly basis.

The timelines for Completion of the restoration, refurbishment start up Works is 90 days from the Zero date.

Timelines for Scope of work in Days

S. No.	Stage	Reference from D
1	Date of Site handover and restoration	Zero Date (D)
2	The contractor shall submit the detailed execution plan (MS Projects/PERT/GANTT chart etc.)	D+7 days
3	Manpower allotment at sites	D+11days
4	Supply of major components/equipment like spares parts for SMB, Cables, connectors, vacuum circuit breaker, transformer oil, gaskets, BoP component spares, consumables, etc	D+41days
5	Replacement of defective components, Testing and recommissioning of all major equipment including, HV switchgear, Inverters / PCU, Transformers etc.	D+55days
6	Recommissioning and startup of Plant (SPGS) along with Completion of Facilities in line with Technical/Functional/Performance Requirement stated under this Tender Document.	D+90 days

Plant Performance will be considered as per Clause 2.5 Operational Acceptance and same shall be done only after recommissioning of Plant & Completion of all associated infrastructure as mentioned in Annexure II.

11. Annual Guarantee Generation, Penalties & Serviceability Level Agreement

11.1 Actual Delivered Energy

Actual Delivered Energy from the plant supplied by the Contractor shall be noted for every month and summed up for entire year. For this purpose, the net delivered energy at the metering point shall be considered. The Contractor shall share with EESL all the radiation, generation, etc. parameters details and all other factors necessary for EESL to corroborate the estimate. EESL has the right to cross verify data submitted by the Contractor by all possible means/sources.

11.2 Annual Guarantee Generation

Based on the performance of 1 year of the plant from recommissioning date, with maintaining average PR of > 70% for all the sites (zone wise) and cumulative generation of all the sites (zone wise) will be account as a benchmark unit for the remaining period of the O&M i.e. up to 10 years from the COD.

Illustration

Description	Quantity	Units
Zone	XX	Nos.
Number of Sites	XX	Nos.
Cumulative Capacity	10	MW
Cumulative Generation for all sites with maintaining \geq 70% of PR for 1 year from recommissioning.	14.80	Million units
Remaining Period 2 – from recommissioning	14.69	Million units*
Remaining Period 3– from recommissioning	14.58	Million units*
Remaining Period 4– from recommissioning	14.47	Million units*
Remaining Period 5– from recommissioning	14.36	Million units*
Remaining Period 6– from recommissioning	14.25	Million units*
So-on up to 10 years of O&M		

* 0.75% degradation is considered YOY basis

11.3 Penalty for deviation in Guaranteed energy Generation

The Contractor shall guarantee the energy generation from the project as per the table in Clause 2.5 Plant Performance Evaluation of this document. In case the contractor is not able to meet the guaranteed energy generation per the Clause 2.5 Plant Performance Evaluation then the contractor shall be liable to pay the penalty as per below mentioned formula:

Description	Calculation
Penalty	5 x No. of kWh shortfall in a year (calculated on pro rata basis as per Clause 2.5 Operational Acceptance Zone wise) X Rs./kWh) (As per PPA signed between EESL and respective DISCOM at 3.00 Rs per unit (kWh))

The Penalty amount calculated may be adjusted from any amount payable by EESL to the contractor or CPG.

In case the Project fails to generate any power continuously for 30 days any time during the O&M period, apart from the force majeure and grid outages as certified by competent authority from STU/ CTU, it shall be considered as “an event of default”. In the case of default, the entire CPG will be encashed. In case the amount discovered in an event of default is more than the encashed CPG amount, then EESL reserves the right to recover the differential amount from other ongoing projects (if any) or by other means, as applicable from the bidder.

The contractor has to rectify the solar power plant(s) without any extra cost to EESL/DISCOM. The contractor shall take necessary corrective measures to guarantee the minimum energy generation as per Clause 2.5 Plant Performance Evaluation.

In case of partial or full encashment of CPG by EESL, the bidder shall recoup the CPG within 28 days.

- A. Contractor shall make efforts to maintain 100 % serviceability of complete Plant restoration including all other associated infrastructure developed by the Contractor during restoration and refurbishment of plants(s) and operation and maintenance as its scope of work.
- B. Contractor shall produce monthly serviceability report for individual components of the plant & associated infrastructure to the EESL/DISCOM by 5th of next month.
- C. Contractor shall maintain a Complaint logbook, which shall include the timing of logging of complaint including unique Complaint number, time of closure of complaint & its Root Cause Analysis.
- D. Such rectification work carried out by EESL/DISCOM does not exempts/relieves Contractor from its responsibility towards subsequent operation, maintenance, repair & replacement of such component/ infrastructure of the Plant or meeting the performance parameters of the Plant.
- E. O&M Routine & Manpower: Contractor shall provide Preventive / Routine Maintenance schedule based on Original Equipment manufacturer and good engineering practices.

In case of shortfall in guaranteed energy generation or any delay in the execution of the order beyond the stipulated time schedule decided including any extension permitted in writing, EESL reserves the right to recover from the Contractor for the loss incurred due to delay in restoration recommissioning or shortfall in guaranteed energy generation as indicated in the table below.

Alternatively, EESL reserves the right to purchase the material and completion of the works from elsewhere at the sole risk and cost of the successful bidder/ contractor and recover all such extra cost incurred by EESL in procuring the material from resources available including EMD/Bid security/ encashment of the bank guarantee or any other sources etc. and in case of shortfall of some resource's bidder shall deposit the same with EESL forthwith. Further, if any extra cost is incurred by EESL due to delay in work completion by the party beyond the completion time as per PO/LOA, the same shall be recovered from the party's Invoice/EMD/BG etc. If recovery is made from CPG, in such cases, contractor is required to recoup the BG on immediate basis. EESL may adjust all amount recoverable from successful bidder from any amount payable to him.

Alternatively, EESL may cancel the order completely or partly without prejudice to its right under the alternatives mentioned above.

11.4 Penalty for damage of Solar PV modules

In case the damage / breakage of solar PV modules during the Erection and recommissioning period or during O&M period by the contractor, then the penalty shall be levied on the Contractor. Three cases are discussed below.

Case 1. The contractor shall be responsible for replacing the damaged Solar PV module with same technical specifications and make. EESL shall review the PV module(s) specifications before replacement. The Contractor shall be responsible for arranging the new solar PV modules at site to avoid penalty under “**Penalty for deviation in Guaranteed Energy Generation**” for any deviation in energy generation in any year.

Case 2: EESL will arrange for the spare solar PV modules from the inventory. The contractor shall make payment to EESL on the total value of the new solar PV module (s).

Payment for New Solar PV modules by Contractor to EESL = $1.2 \times \text{Wattage of Solar PV modules (Wp)} \times \text{Rs/Wp (tendered / discovered price for Solar PV Modules)} + \text{Transportation} + \text{GST} + \text{Duties/Cess /others (if applicable)}$.

Case 3: In case the spare Solar PV modules are not available with EESL, then EESL shall procure the modules in open market. EESL makes arrangements for supply of new Solar PV modules in place of damaged modules, the Contractor shall make the payment to EESL as per the below table.

Details	Value
During Erection and Commissioning Period	$1.2 \times \text{Wattage of Solar PV modules (Wp)} \times \text{Rs/Wp (Actual tendered price for Solar PV Modules)}$
During Operation and Maintenance Period	$1.2 \times \text{Wattage of Solar PV modules damaged (Wp)} \times \text{Rs/Wp (Actual tendered price of Solar PV Modules)}$

The contractor shall pay the penalty (ies) calculated as per the above table. However, the transportation and GST and duties/Cess /others (if applicable) shall be paid extra by the contractor. The contractor shall not claim for any loss due to delay in supply from EESL under Case 2 and Case 3.

11.5 Penalty for delay in recommissioning

In case the recommissioning of project is delayed, or the contractor is not able to meet the timelines as mentioned in a.14 ‘Project Timelines then the contractor shall pay the penalty at the rate mentioned below for the un-commissioned capacity:

Delay Period	Penalty
Upto 30 days	$5 \times \text{loss of generation in no. of unit for days of delay (calculated on pro rate basis as per Clause 2.5 Plant performance Evaluation)} \times \text{Rs. / kWh (Per kWh rate in Rs. As per PPA between EESL \& respective DISCOM)}$

From 31-60 days	1.2 x loss of generation in no. of unit for period of delay (calculated on pro rate basis as per Clause 2.5 Plant Performance Evaluation) X Rs. / kWh (Per kWh rate in Rs. As per PPA between EESL & respective DISCOM)
From 61 & above days	5 x loss of generation in no. of unit for period of delay (calculated on pro rate basis as per Clause 2.5 Plant Performance Evaluation) X Rs. / kWh (Per kWh rate in Rs. As per PPA between EESL & respective DISCOM)

If the contractor fails to commission the project beyond 90 days of restart as mentioned in 'Project Timelines under a.14, EESL reserves the right to terminate the contract and the contractor shall reimburse EESL, the loss incurred.

Note: Contractor shall inform in writing MSEDCL and EESL by at least 7 days in advance regarding testing of plant from the date of restoration Day of the respective site(s). However, the delay in synchronization and commissioning due to DISCOM may be excluded from penalty.

11.6 Incentive for Excess Energy Generation

Contractor has to guarantee the minimum energy generation in any year as per Clause 10 'Guaranteed Energy Generation' of 'Specifications'. In case, the gross energy generated by the project is more than the minimum guaranteed energy generation (zone wise), the contractor will be paid an incentive as per the below calculation:

Description	Calculation
Incentive	No. of excess kWh generated in a year (over and above the energy as per Clause 2.5 Operational Acceptance) (Zone wise) X Rs. One(1.0)/kWh (Inclusive of all taxes, duties, cesses, etc.)

The incentive amount shall be calculated at the end of every O&M Year and paid to the Contractor in the next bill amount.

11.7 Third Party Inspection Agency

A third party inspection agency ("Third Party Inspectors" or "TPI") may be appointed by EESL/DISCOM, at its sole discretion, to conduct any kind of inspection regarding but not limited to procurement, fabrication, installation, hook-up and commissioning during the execution of the Project. The Contractor shall provide necessary access and coordination to conduct such inspections. The extent of third party inspectors' involvement shall be finalized after mutual discussions between the Contractor and EESL/DISCOM.

EESL/DISCOM or its authorized representatives, reserve the right to inspect the project components, as per project schedule to ensure compliance of the quality of Components/ material as per the specification and data sheet, before dispatch to site. EESL/DISCOM at its own discretion will visit the premises for inspection with prior intimation to the

Contractor. It is the responsibility of the contractor to inform EESL/DISCOM at least 14 days prior to the dispatch of the project equipment. All administrative expenses for EESL/DISCOM or its authorized representatives, will be borne by EESL/DISCOM for above inspections. However, all the expenses related to testing and inspection at manufacturer/ supplier premises or at project site shall be borne by the contractor only. In case contractor fails to show the compliance for the component under inspection as per Technical Specification & approved drawing /design & same is not approved for mass production or dispatch, in such cases Contractor shall bear the expenses towards visit of EESL/DISCOM's team for subsequent visit/s for inspection of same component.

11.8 Insurance

11.8.1 Obtain the insurance policies: Successful bidder/contractor shall obtain the policies.

11.8.2 Insurance policy expenses: Successful bidder/contractor shall bear all expenses in relation to obtaining policies, as described in this clause.

11.8.3 Insurance Policy: Successful bidder shall obtain the insurance policy as under:

- I. During the Contract period, i.e., during Construction, all insurance related expenses shall be borne by the Contractor. The goods supplied under the Contract shall be fully insured against the loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in such a manner that EESL/DISCOM shall not incur any financial loss, as long as the plant continues to remain under the custody of the Contractor.
- II. Adequate and seamless insurance coverage during construction period and O&M period to cater all risks related to construction and O&M of Plant to indemnify the EESL/DISCOM. The insurance during the construction and O&M period shall also cover the power output warranty of Solar PV modules. Insurance certificate of warehouse and / storage facility shall be submitted to EESL before the start of the erection and commissioning work.
- III. In case of any loss or damage or pilferage or theft or fire accident or combination of the said incidents etc. under the coverage of insurance, the Contractor shall lodge the claim as per rules of insurance. Any FIR required to be lodged at the local Police Station shall be the responsibility of the Contractor.
- IV. The Contractor shall arrange to supply/ rectify/ recover the materials even if the claim is unsettled for timely completion of the project. The final financial settlement with the insurance company shall rest upon the Contractor.
- V. In case of any delay of the project attributable to the Contractor, the Contractor himself in consultation with EESL/DISCOM should take the extension of insurance. Any financial implications shall, however, be borne by the Contractor.
- VI. The Contractor should arrange for providing insurance coverage to its workmen under Workmen's Compensation Act or similar Rules and Acts as applicable during execution of work for covering risk against any mishap to its workmen.

The Contractor shall also undertake a Third Party Insurance. The EESL/DISCOM will not be responsible for any such loss or mishap.

- VII. All other insurance like in – transit insurance (Marine/ Cargo/ others as applicable), Contractor All Risk, Erection All Risk, workmen compensation, third party liability, insurance against theft and acts of GOD and others as required for the Construction and O&M of the Plant and to indemnify the EESL/DISCOM/ equipment/ material and resources shall be borne by the Contractor. Fire insurance is to be arranged by the Contractor up to the years of O&M of the Contract.
- VIII. EESL/DISCOM shall be named as co – insured under all insurance policies taken out by the contractor pursuant to Clause a.18 ‘Arbitration’, except for the workmen compensation, third party liability and EESL/DISCOM’s liability insurances. Also, Contractors’ sub – contractor shall be named as co – insured under all insurances taken out by the contractor pursuant to Clause a.18 ‘Arbitration except for Cargo insurance, workmen compensation insurance and EESL/DISCOM’s liability insurance. All insurers’ rights of subrogation against such co – insured for losses or claims arising out of the performance of the contract shall be waived under such policies.
- IX. All the insurance cover taken for the construction and O&M period shall be seamless in nature.
- X. The insurance are to be suitably taken for the activity/ act which is required to cover all the risks associated to the activity / act. The contractor shall be responsible to take suitable insurance till the completion of the O&M contract and indemnify the EESL/DISCOM from all associated risks whatsoever.

11.9 Transportation, Demurrage, WHARF Age etc.

Contractor is required under the Contract to transport the Goods to place of destination defined as Site. Transport to such place of destination in India including insurance, as shall be specified in the Contract, shall be arranged by the Contractor, and the related cost shall be included in the Contract Price.

Successful bidder, on whom letter of award is placed, is to ensure all safety guidelines, rules and regulations, labour laws etc. Successful bidder indemnifies EESL for any accident, injury met by its labour, employee or any other person working for him. Any compensation sought by its labour, employee or any other person working for him shall be paid by successful bidder as per settlement solely. EESL has no role to play in this matter.

- I. Subsequent to an order being placed against your quotation, received in response to this ‘enquiry’, if it is found that the materials supplied are not of the right quality or not in accordance with our specifications (required by us) or received in damaged or broken conditions, not satisfactory owing to any reason of which we shall be the sole judge, we shall be entitled to reject the materials, cancel the contract and buy our requirement from the open market / other sources and

recover the loss, if any, from the supplier reserving to ourselves the right to forfeit the security deposit, furnished by the supplier against the contract. The supplier will make his own arrangements to remove the rejected material within a fortnight of instruction to do so. Thereafter material will lie entirely at the supplier's risk and responsibility and storage charges, along with any other charges applicable, will be recoverable from the supplier.

- II. Successful bidder is to ensure interchangeability of its product supplied for replacement during warranty period and even when it is purchased from open market. In case due to change in technology, the supplied product is not available during warranty period than the improved version of product can be used in warranty period with same or improved technical parameters or the combination thereof after written communication of Engineer in Charge at same cost& terms and conditions. Successful Bidder, on whom letter of award has been placed, has also to confirm that the prices of improved version of product is not lesser than the original product or its parts in comparison.
- III. EESL reserve the right for quantity variation up to +/-20% irrespective of project capacity. Further EESL reserve the right to place a repeat order in case of urgency for part quantity in the Letter of Award for similar work on same prices, terms and conditions.
- IV. EESL have the rights to accept or reject any bid or part without assigning any reason.

ANNEXURE- II

Minimum Technical Specifications of Solar Power Generating System(s) are as follow:

Contractor has to restore the plants as is where is basis. The main objective of the restoration philosophy is to rebuilt the plant with in-built Quality and appropriate redundancy to achieve high availability and reliability with minimum maintenance efforts. In order to achieve this, the following principles shall be adopted while restoration the system, Checking of solar panels and replacement of defective modules (first time Solar PV modules will be provided by EESL, later on contractor have to maintain it through out O&M period.). Maintenance of Inverter and it's BoP (First time inverter preventive maintenance will be done by EESL, later on contractor have to maintain it through out O&M period.). Junction boxes, connectors etc. to ensure generation of power at optimum efficiency as per initial design estimates. This will be done by applying liberal de-rating factors for the array and recognizing the efficiency parameters of PCUs, transformers, conductor losses, system losses, site conditions etc. Strict compliance with approved and proven quality assurance (QA) systems and procedures during different stages of the restoration and O&M, starting from sizing, selection of make, shipment, storage (at site), during restoration, testing and recommissioning. System redesign/restoration shall have enabled intelligent protection mechanism which may include very fast responsive microprocessor based relays etc., so that any disturbance from the grid will not cause any damage to the equipment of the Solar Power Plant.

Maintain Shadow free plant layout to ensure minimum losses in generation during the day-time. Higher system voltage and lower current options to be followed to minimize ohmic losses. Routine health preventive maintenance of inverters/PCUs with proven reliability and minimum downtime. Ready availability of requisite spares.

Careful logging of operational data / historical information from the Data Monitoring Systems, and periodical analysis of the same to identify any abnormal or slowly deteriorating conditions. Each component offered for restoration by the bidder shall be of established reliability. During restoration the minimum target reliability of each equipment shall be established by the bidder considering its mean time between failures and mean time to restore, such that the availability of complete system is assured. Bidder's recommendation of the spares during restoration and O&M shall be on the basis of established reliability.

Bidder shall restore the plant and equipment in order to have sustained life of 25 years with minimum maintenance efforts.

1. Bill of Material:

The equipment and material for restoration of 0.5 to 10MWp Grid Interactive Solar Power Generating Systems (SPGS) with associate system (typical) shall include, but not limited to the following:

Furthermore, during the initial tendering process (when the tender was published for supply erection, commissioning, operation and maintenance), bidders were informed to use the technical specifications as mentioned below:

NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002	SECTION-4 (Part-C (TS))	Page 28 of 98
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As per as built drawing to be submitted by the contractor. However, EESL will provide SLDs of each site, if contractors enquire.

Item Details (along with make & specifications)	Unit
Defective/faulty Solar PV modules for replacement (supplied by EESL first time only)	Nos.
fasteners and clamps wherever required for Module Mounting Structures maintenance	Set
List of spares required for restoration of Main Junction Boxes with monitoring capabilities	Nos
Condition based required cable (Cu) for Interconnection from Solar PV module array to Junction box	RM
Connectors MC4 and Y connectors	Lot
Required cable from Junction box to Inverter Interconnection Cable (Cu/ Al)	RM
Required Connection accessories – lugs, ferrules, glands, terminations etc.	Lot
Required AC Cable (LT/ HT) of appropriate sizes	RM
Balance of spares required for Power Conditioning Units/ Inverters (first time Inverter servicing will be done by EESL)	Nos.
Spares required for String level monitoring system (MU) and ancillaries	Set
Spares required for Inverter duty Transformer(s) and required fresh oil	Nos/Ltr
Spares required for Circuit breakers, CT and PT set, (at all voltage levels used)	Set
Spares required for 11 kV Indoor/outdoor interfacing panels with CT, VCB, PT, relays	Set
Spares required for AC & DC distribution panels/ boards, PDB, LDB etc.	Lot
Spares required for Control and Relay Panel	Nos
New Lightning Arresters of suitable ratings	Nos.
Spares and material required for earth mat for switch yard, DC field array and equipment	Lot
Required Control and power cables	Lot
Required Surge Protection devices and Fuses	Set
Condition based required Earth cables, flats and earthing pits	meters/nos
Required Equipment and Control room with associated equipment	Lot
Rubber Mats as per IS 15652 for specific kV ratings and safety gadgets, PPE etc.	Lot
Fire extinguisher – Foam type, CO2 type, ABC type etc., as applicable with test report and next testing due date	Lot
Sand Buckets	Lot
Required Discharge Rods sa and HV electrical hand gloves with IEC 60903	Lot
Cable for power evacuation with suitable support system.	Lot
Power efficient peripheral lighting arrangement for the Plant safety	Nos.
Fire – Alarm system and signboards	Lot

Danger sign plates, anti-climbing etc.	Lot
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All the information shown here is indicative only and may vary as per restoration and planning by the Contractor. The Contractor must provide the BOM of the Plant as per the design during the time of bidding. Solar PV modules of reputed make of capacity 300 Wp and above shall be supplied by EESL, specifications of modules are covered under **Annexure-IV**.

2. String Monitoring Unit (SMU):

All SMUs should be equipped with appropriate functionality, safety (including fuses, grounding, contacts etc.) and protection.

The terminals will be connected to copper bus-bar arrangement of proper sizes to be provided. The junction boxes will have suitable cable entry points fitted with cable glands of appropriate sizes for both incoming and outgoing cables. Suitable markings shall be provided on the bus-bars for easy identification and weather resistant cable ferrules will be fitted at the cable termination points for identification.

The standards and codes:

Standard/Code	Description
IEC 60529	Enclosure Ingress Protection
IEC 62262	Enclosure Impact Protection
IEC 60296	Fuse
IEC 61643-12	Surge Protection Device
IEC 62852 or EN 50521	Solar cable connector

The Junction Boxes shall have suitable arrangement for the followings:

- a) Provide arrangement for disconnection for each of the groups/incomers.
 - Provide a test point for each sub-group for quick fault location and to provide group array isolation.
 - Suitable space for workability and natural cooling.
- b) The junction boxes shall be dust, vermin, and waterproof and made of thermoplastic/ metallic in compliance with IEC 62208, which should be sunlight/ UV resistive as well as fire retardant & must have minimum protection to IP65 (Outdoor) and Protection Class II.
- c) Array Junction Box will also have suitable surge protection. In addition, over voltage protection shall be provided between positive and negative conductor and earth ground such as Surge Protection Device (SPD). The maintenance free earthing shall be done as per the relevant standards.
- d) Array Junction Box should have adequate ratings of solar DC fuses & isolating miniature circuit breakers at both the terminals (+ve as well as -ve), provided in

recommendation with the inverter manufacturer. The fuses should be so designed that it should protect the modules from the reverse current overload.

- e) At outgoing side DC Disconnecter switches Switch of suitable capacity shall be provided.
- f) Contractor shall submit all the test reports/ test certificates and compliance certificates during Detailed Design Engineering & before installation at site.

3. Power Conditioning Unit (PCU)

- a) Power Conditioning Unit (PCU)/ Inverter shall consist of an electronic inverter along with associated control, protection and data logging devices.
- b) Central inverter/ String Inverter of appropriate capacity may be used.
- c) The rated power/name plate capacity of the inverters shall be the AC output of the inverter at 50°C.
- d) All PCUs should consist of associated control, protection and data logging devices and remote monitoring hardware and compatible with software used for string level monitoring.
- e) Dimension, weight, cooling arrangement etc. of the PCU shall be indicated by the Bidder in the offer. Type (in- door & out-door) of installation also to be indicated.
- f) Contractor has to provide sufficient information about the inverter to be installed at the project site to the satisfaction of the EESL/DISCOM before placing the final order for PCUs/Inverters. Service center of the PCU manufacturer must be in India.
- g) The minimum European efficiency of the inverter shall be 98% load as per IEC 61683 standard for measuring efficiency. The Bidder/ Contractor shall specify the conversion efficiency of different loads i.e. 25%, 50%, 75% and 100% in its offer. The Bidder/ Contractor should specify the overload capacity in the bid.
- h) The inverters shall have minimum protection to IP 65(Outdoor)/IP 21(indoor) and Protection Class II.
- i) Nuts & bolts and the PCU enclosure shall have to be adequately protected taking into consideration the atmosphere and weather prevailing in the area.
- j) Grid Connectivity: Relevant CERC regulations and grid code as amended and revised from time to time shall be complied. The system shall incorporate a unidirectional inverter and should be designed to supply the AC power to the grid at load end. The power conditioning unit shall adjust the voltage & frequency levels to suit the Grid.
- k) All three phases shall be supervised with respect to rise/fall in programmable threshold values of frequency.
- l) The inverter output shall always follow the grid in terms of voltage and frequency. This shall be achieved by sensing the grid voltage and phase and feeding this information to the feedback loop of the inverter. Thus control variable then controls the output voltage and frequency of the inverter, so that inverter is always synchronized with the grid.

3.1 Operational Requirements for Inverter/ PCU

- a) The PCU must have the feature to work in tandem with other similar PCU's and be able to be successively switched "ON" and "OFF" automatically based on solar radiation variations during the day. Inverters must operate in synergy and intelligently to optimize the generation at all times with minimum losses.

- b) The PCU shall be capable of controlling power factor dynamically.
- c) Maximum power point tracker (MPPT) shall be integrated in the power conditioner unit to maximize energy drawn from the Solar PV array. The MPPT should be microprocessor based to minimize power losses. The details of working mechanism of MPPT shall be mentioned by the Bidder in its offer. The MPPT unit shall confirm to IEC 62093 for design qualification.
- d) The system shall automatically “wake up” in the morning and begin to export power provided there is sufficient solar energy and the grid voltage and frequency is in range.
- e) Basic System Operation (Full Auto Mode): The control system shall continuously monitor the output of the solar power Plant until pre-set value is exceeded & that value to be indicated.
- f) PCU shall have provisions/features to allow interfacing with monitoring software and hardware devices.

3.2 Protection against faults for PCU

The PCU shall include appropriate self-protective and self-diagnostic feature 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. The self-protective features shall not allow signals from the PCU front panel to cause the PCU to be operated in a manner which may be unsafe or damaging.

Faults due to malfunctioning within the PCU, including commutation failure, shall be cleared by the PCU protective devices. In addition, it shall have following minimum protection against various possible faults.

- a) Grounding Leakage Faults: The PCU shall have the required protection arrangements against grounding leakage faults.
- b) Over Voltage & Current: In addition, over voltage protection shall be provided between positive and negative conductor and earth ground such as Surge Protection Devices (SPD).
- c) Galvanic Isolation: The PCU inverter shall have provision for galvanic isolation with external transformer, if required.
- d) Anti-islanding (Protection against Islanding of grid): The PCU shall have anti-islanding protection. (IEEE 1547/UL 1741/ equivalent BIS standard)
- e) Unequal Phases: The system shall tend to balance unequal phase voltage (with 3- phase systems).
- f) Reactive Power: The output power factor of the PCU should be of suitable range to supply or sink reactive power. The PCU shall have internal protection arrangement against any sustained fault in the feeder line and against lightning in the feeder line.
- g) Isolation: The PCU shall have provision for input & output isolation. Each solid- state electronic device shall have to be protected to ensure long life as well as smooth functioning of the PCU.
- h) 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.
- i) Each solid state electronic device shall have to be protected to ensure long life of the inverter as well as smooth functioning of the inverter.
- j) All inverters/ PCUs shall be three phase using static solid state components. DC lines shall have suitably rated isolators to allow safe start up and shut down of the system. Fuses & Circuit breakers used in the DC lines must be rated suitably.

3.3 Standards & Compliances (PCU)

- i. PCU shall confirm to the following standards and appropriately certified by the labs:

C 61683	Photovoltaic systems - Power conditioners - Procedure for measuring efficiency
EN 50530:2010 with 2013 Amendment 1	Overall efficiency of grid connected photovoltaic inverters
IEC 62109-1 Ed. 1	Safety of power converters for use in photovoltaic power systems - Part 1: General requirements
IEC 62109-2 Ed. 1	Safety of power converters for use in photovoltaic power systems - Part 2: Particular requirements for inverters
IEC 61000-6-2 Ed. 2	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments, Harmonics etc.
IEC 61000-6-4 Ed. 2.1	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments
IEC 62116 Ed. 2	Utility-interconnected photovoltaic inverters - Test procedure of islanding prevention measures
IEEE 1547:2003 with 2014 Amendment 1	IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems
IEC 60068-2-1:2007	Environmental testing - Part 2-1: Tests - Test A: Cold
IEC 60068-2-2:2007	Environmental testing - Part 2-2: Tests - Test B: Dry heat
IEC 60068-2-14:2009	Environmental testing - Part 2-14: Tests - Test N: Change of Temperature
IEC 60068-2-30:2005	Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)
CEA Technical Standards for Connectivity to the Grid Regulations 2007 with 2013 Amendment or as amended from time to time.	

- ii. The Bidder/Contractor should select the inverter as per its own system design so as to optimize the power output, however selected inverter must comply with the Technical/functional requirement of Plant as per this Tender Document.

iii. **Desired Technical requirements of PCU.**

Parameter	Specification
Rated AC power	As per design
Maximum input voltage	1000 V
Rated AC output voltage	As per design
Tolerance on rated AC output voltage	+/-10%
Rated frequency	50 Hz
Operating frequency range	47.5 Hz to 52 Hz

Power factor control range	0.9 lag to 0.9 lead
European efficiency	Minimum 98%
Maximum loss in Sleep Mode	0.05% of rated AC power
Total Harmonic Distortion	Less than 3% at 100% load
Degree of protection	IP 20 (Indoor)/IP 54 (Outdoor)

- The rated/ name plate AC capacity of the PCU shall be AC power output of the PCU at 50°C.
- Maximum power point tracker (MPPT) shall be integrated in the PCU to maximize energy drawn from the Solar PV array. The MPPT voltage window shall be sufficient enough to accommodate the output voltage of the PV array at extreme temperatures prevailing at site.
- The PCU output shall always follow the grid in terms of voltage and frequency. The operating voltage and frequency range of the PCU shall be sufficient enough to accommodate the allowable grid voltage and frequency variations.
- Construction:
 - Power Conditioning Unit (PCU) shall consist of an electronic three phase inverter along with associated control, protection, filtering, measurement and data logging devices.
 - Every DC input terminal of PCU shall be provided with fuse of appropriate rating. The combined DC feeder shall have suitably rated isolators for safe start up and shut down of the system.
 - Type-II surge protective device (SPD) conforming to IEC 61643-12 shall be connected between positive/ negative bus and earth.
 - In case external power supply is required, standalone UPS shall be used to meet auxiliary power requirement of PCU. It shall have a backup storage capacity of 2 hours.
 - Circuit Breaker of appropriate voltage and current rating shall be provided at the output to isolate the PCU from grid in case of faults.
 - The PCU shall be tropicalized and the design shall be compatible with conditions prevailing at site. Suitable number of exhaust fan with proper ducting shall be provided for cooling keeping in mind the extreme climatic condition of the site as per the recommendations of OEM to achieve desired performance and life expectancy.
 - All the conducting parts of the PCU that are not intended to carry current shall be bonded together and connected to dedicated earth pits through protective conductor of appropriate size. DC negative terminal shall be grounded.
 - Dedicated communication interface shall be provided to monitor the PCU from SCADA.
 - PCU front panel shall be provided with LCD/ LED to display all the relevant parameters related to PCU operation and fault conditions. It shall include, but not limited to, the following parameters.
 - (i) DC input power
 - (ii) DC input voltage
 - (iii) DC input current
 - (iv) AC output power
 - (v) AC output voltage (all the 3 phases and line)
 - (vi) AC output current (all the 3 phases and line)
 - (vii) Frequency
 - (viii) Power Factor

- Operating Modes
 - Operating modes of PCU shall include, but not limited to, the following modes. These operating modes and conditions for transition are indicative only. The Contractor shall provide the detailed flow chart indicating the various operating modes and conditions for transition during detailed engineering.
- Standby Mode
 - The PCU shall continuously monitor the input DC voltage and remain on Standby Mode until it reaches the pre-set value.
- MPPT Mode
 - When the input DC voltage is above the pre-set value and AC grid connection conditions are fulfilled, the PCU shall enter into MPPT mode.
- Sleep Mode
 - When the AC output power/DC input voltage decreases below the pre-set value for pre-set time delay, the PCU shall switch into Sleep Mode.
- Protection Features
 - The PCU shall include appropriate self-protective and self-diagnostic feature 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. The self-protective features shall not allow signals from the PCU front panel to cause the PCU to be operated in a manner which may be unsafe or damaging. Faults due to malfunctioning within the PCU, including commutation failure, shall be cleared by the PCU protective devices.
- The PCU shall provide protection against the following type of faults, among others.
 - (i) DC/AC over current
 - (ii) DC/AC over voltage
 - (iii) DC reverse polarity
 - (iv) DC earth fault
 - (v) AC under voltage
 - (vi) AC under frequency/over frequency
 - (vii) Islanding
 - (viii) Over temperature
 - (ix) Lightning surges
 - (x) Cooling fan failure
 - (xi) Auxiliary supply failure
 - Grid Support Functions
 - Active power regulation
- The PCU shall be able to limit the active power exported to the grid based on the set point provided through PCU front control panel. The PCU shall also be able to automatically the limit the active power after an increase in grid frequency above a pre-set value. The ramp rate shall be adjustable during operation and start-up after fault. The applicability of the requirement shall be as per CEA regulation and compliance.
- Reactive power control
 - The PCU shall be able to inject /absorb reactive power to/ from the grid based on the set point provided through PCU front control panel. The same shall be performed automatically with adjustable ramp rate based on dynamic changes in grid voltage or reactive power reference.
- Voltage Ride Through

- The PCU shall remain connected to the grid during temporary dip or rise in grid voltage as per the LVRT and HVRT requirements of CEA Technical Standards for Connectivity to the Grid Regulations. The PCU shall also be able to inject reactive power during the period of voltage dip.
-

Test Certificates/Reports

All the test certificates as per the standards mentioned above shall be submitted for approval. The tests should have been conducted at a test laboratory compliant with ISO 17025 for testing and calibration and accredited by an ILAC member signatory. Laboratory accreditation certificate or weblink along with scope of accreditation shall also be submitted. It is the responsibility of the Contractor to substantiate the compliance for CEA Regulations using test reports.

4. Inverter Transformer

Standards and Codes

Inverter transformer, wherever applicable, shall comply with the latest edition of the following standards and codes including amendments

Standard	Description
IS:2026, IEC:60076	Specification of Power Transformers
IS:2099, IEC:60137	Bushings for alternate voltage above 1000 V
IS: 335, IEC 60296	Insulating oil
IS: 3639	Fittings and Accessories for Power Transformers

- Technical Requirements

Parameters	Inverter Transformer
VA Rating	As per system requirement and SLD
Voltage Ratio	11 kV/ Inverter output voltage
Duty, Service & Application	Continuous Solar Inverter application and converter Duty (Outdoor)
Winding	As per system design requirement
Frequency	50 HZ
Nos. of Phase	3
Vector Group & Neutral Earthing	As per system/inverter manufacturer requirement and SLD
Cooling	ONAN
Tap Changer	OCTC, No. of steps shall be as per the SLD and system requirement
Impedance at 75°C	As per Inverter Manufacturer requirement and SLD
Permissible Temperature rise over an ambient of 50°C (irrespective of tap)	
Top Oil	50°C

Winding	55°C
SC withstand time (thermal)	2 second
Termination	As per system requirement and SLD
Bushing rating, Insulation class (Winding & bushing)	HV side - 12 kV porcelain bushings LV side - 1.1 kV porcelain bushings
Noise level	As per NEMA TR-1
Loading Capability	Continuous operation at rated MVA on any tap with voltage variation of +/-3%, also transformer shall be capable of being loaded in accordance with IEC 60076-7
Flux density	Not to exceed 1.9 Wb/sq.m. at any tap position with combined frequency and voltage variation from rated V/f ratio by 10% 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 characteristic up to 150%
Air Clearance	As per CBIP
* Single Line Diagram (SLD) will be finalized during detailed engineering.	

Construction

- The transformer shall be provided with conventional single compartment conservator with prismatic toughened glass oil gauge. The top of the conservator shall be connected to the atmosphere through indicating type cobalt free silica gel breather with transparent enclosure. Silica gel shall be isolated from atmosphere by an oil seal. Inverter transformers shall be provided with Magnetic Oil Gauge (MOG) with low oil level alarm contact.
- It is the responsibility of the Contractor to ensure that the inverter transformer comply with all the requirements of inverter provided by the inverter manufacturer.
- Inverter Transformer shall be designed for at least 5% total harmonic distortion (THD) to withstand distortion generated by the inverter as well as possible outside harmonics from the network.
- The transformer shall be suitable for continuous operation with a frequency variation of $\pm 2.5\%$ from nominal frequency of 50 Hz without exceeding the specified temperature rise.

- Inverter Transformer shall have shield winding between LV & HV windings. Each LV winding must be capable of handling non-sinusoidal voltage with voltage gradient as specified by the inverter manufacturer. Also, shield winding shall be taken out from tank through shield bushing and the same shall be brought down to the bottom of the tank using copper flat and support insulator for independent grounding.
- Neutral bushing of Inverter duty transformer shall be brought outside the tank for the testing purpose. It shall be covered with MS sheet and a sticker "For testing purpose only. Do not earth". Neutral bushing of auxiliary transformer shall be brought outside the tank for earthing.
- Transformer shall have 150 mm dial type Oil Temperature Indicator (OTI) and Winding Temperature Indicator (WTI) with alarm and trip contacts. All indicators shall have accuracy class of ± 2 deg. For inverter transformers, WTI shall be provided for all the windings.
- The radiators shall be detachable type, mounted on the tank with shut off valve at each point of connection to the tank, lifts, along with drain plug/ valve at the bottom and air release plug at the top.
- Marshalling Box shall be of sheet steel, dust and vermin proof provided with proper lighting and thermostatically controlled space heaters. The degree of protection shall be IP 55. Marshalling Box of all transformers shall be preferably Tank Mounted. One dummy terminal block in between each trip wire terminal shall be provided. At least 10% spare terminals shall be provided on each panel. The gasket used shall be of neoprene rubber. Wiring scheme (TB details) shall be engraved in a stainless steel plate with viewable font size and the same shall be fixed inside the Marshalling Box door.
- Suitable relay, double float type with alarm and trip contacts, along with suitable gas collecting arrangement shall be provided. RTCC panel, as per design, to be provided.
- Inverter transformer shall be provided with spring operated Pressure Relief Device (with trip contacts) with suitable discharge arrangement for oil.
- Filter valve at top the tank and drain cum sampling valve at bottom of the tank shall be provided.
- All external surface of the transformer shall be painted with two coats of epoxy based paint of colour shade RAL 7032. Internal surface of cable boxes and marshalling box shall be painted with epoxy enamel white paint. The minimum dry film thickness (DFT) shall be 100 microns.
- LV and HV cable box shall be provided with disconnecting chamber to facilitate the movement of transformer without disturbing cable box and termination.
- Air release plug, bi-directional wheel/skids, cover lifting eyes, transformer lifting lugs, jacking pads, towing holes, core and winding lifting lugs, inspection cover, rating plate, valve schedule plate, accessories and terminal marking plates, two nos. of earthing terminals shall be provided.
- Rain hoods to be provided on MOG & PRD. Entry points of wires shall be suitably sealed.
- The accessories listed above are indicative only. Accessories which are not mentioned above but required for satisfactory operation of the transformers are deemed to be included in the contract without extra charges.

General Standards

- a) All equipment shall be designed for operation in coastal climate at the required capacity. The reference parameters for which the transformers are to be designed are as under:-

Particulars	Condition
Maximum ambient temperature	50°C
Maximum daily average ambient temp	40°C
Maximum yearly weighted average ambient temp	35°C
Minimum ambient air temperature (Cooling)	-5°C
Max. Relative Humidity	95%
Yearly Avg. number of thunder storms	30-50
Average Number of rainy days	60 days
Fog	In winter
Number of months during which topical monsoon	5 months
Dust storms	May occur
Cyclone	Area is cyclone prone
Average Annual rain fall	100 cms.
Maximum wind speed	180 kmph

b) Efficiency:

The percentage loading for the maximum efficiency shall be clearly stated at unity power factor as well at 0.9 and 0.9 power factor (lead and lag).

c) Insulation:

The dielectric strength of the winding, given insulation and the bushings shall conform to the values given in IS: 2026 (Part III)/1981 (or its latest amendment) for highest system voltage and shall be suitable for the impulse test\power frequency test voltages.

d) Factory Assembly and Tests:

The transformer shall be completely assembled and tested at the Factory. Routine and Acceptance tests as per specification/ standards are to be conducted and no deviation in respect of conducting these tests will be acceptable. No extra charges for these tests will be paid. Test charges shall be part of cost of the equipment. If EESL/DISCOM selects to send a representative, all tests shall be carried out in his presence. Type test certificate shall be furnished before start of supply.

e) Routine Tests:

Each completed transformer shall be subjected to following routine tests as per IS: 2026.

Part. I & III (latest amendment). No extra charges for any of the tests shall be paid. No deviation shall be acceptable. If the supplier desires, he may not fix radiators on transformers (other than the one which is to be type tested) during routine testing. However, in that case, radiator manufacturer's test certificate shall be furnished for reference of inspecting officer with undertaking that supplier shall be responsible for proper alignment/fixing of radiator on transformer at site.

1. Measurement of resistance of each winding.
2. Measurement of turn's ratio between HV-LV windings at each tap.
3. Checking of polarity and phase relation-ships for each winding.
4. Measurement of no load loss and no load current.
5. Positive phase sequence impedance/short circuit impedance between HV-LV windings on minimum, maximum and normal taps.
6. Separate source voltage withstand test.
7. BDV test on transformer oil.
8. Induced over voltage withstand test.
9. Measurement of neutral unbalance current.
10. Regulation at rated load at unity, 0.90 and 0.80 lagging power factor.
11. Load losses measured at rated frequency by applying voltage sufficient to produce the rated relevant current in one winding with the other winding short circuited.
12. Measurement of insulation resistance.
13. The total losses shall comprise of the No Load Losses, load losses at rated output duly converted at 75 deg. C average winding temperature and shall also be indicated in the test report. Load losses shall be that corresponding to rated load on HV & LV winding.
14. Routine dielectric tests as per IS: 2026(Part. I & III), 1981 and any amendments thereto.
15. Check complete transformer against approved outline drawing, provision for all fittings, finish oil level etc.

f) Tests at Site

After erection at site all transformer(s) shall be subjected to the following tests:

1. Insulation resistance test.
2. Ratio and polarity test.
3. Dielectric test on oil.
4. Physical check

In case the equipment is not found as per the requirements of the Technical Specification of NIT document, all expenses incurred during site testing will be to the tenderer's account and the material shall be replaced by him at site, free of cost.

Further Tests:

The EESL/DISCOM reserves the right of having other reasonable tests carried out at his own expenses either before dispatch or during performance guarantee period from Govt. approved/ Govt. recognized lab to ensure that the transformer complies with the requirements of this specification after due intimation to the supplier. In case the equipment is not found meeting the requirement of Technical Specification of Tender Document, all expenses incurred for such testing will be on supplier's account and the material shall be replaced by the supplier at site free of cost.

g) Frequency and System Voltage:

The transformer shall be suitable for continuous operation with a frequency variation of $\pm 2.5\%$ from normal of 50Hz without exceeding the specified temperature rise. The system shall be designed for a suitable voltage range as per the Grid code of the state or as per MSEDCL/ APSPDCL standard. However the flux density requirements shall be

as per this specification.

h) Installation & Commissioning

Mainly following activities are required to be carried out before commissioning of Power Transformers:-

- Assembling of Power Transformer accessories as per GA drawing.
- Testing activities in presence of EESL/DISCOM such as
 - o Ratio Test
 - o Megger Value
 - o Magnetic balance.
 - o Oil BDV
 - o Earth Resistance
 - o Buchhloz Relay checking.
 - o WTI/OTI/MOLG (oil level) checking.
 - o Checking of points of leakage of oil from Transformer body/ Radiator/Valve
 - o Setting of Relays in Panel

5. Circuit Breakers

- a) The circuit breakers shall be capable of rapid and smooth interruption of currents under all conditions completely suppressing all undesirable phenomena even under the most severe and persistent short circuit conditions or when interrupting small currents or leading or lagging reactive currents. The circuit breakers shall be 'Restrike-Free' under all operating conditions. The details of any device incorporated to limit or control the rate of rise of re-striking voltage across, the circuit breaker contacts shall be stated. The over voltage across, the circuit breaker contacts shall be stated. The over voltage caused by circuit breaker while switching inductive or capacitive loads shall not exceed 2.5 times the highest phase to neutral voltage. The actual make and break times for the circuit breakers throughout the ranges of their operating duties shall be stated in the offer and guaranteed.
- b) **Applicable Standards:** The materials shall conform in all respects to the relevant Indian Standard Specifications/ IEC Standards, with latest amendments indicated (reference only) below:

IS-13118/1991	General requirements for Circuit breakers for voltage above 1000 V IEC 62271-100-1/2001
IS-2705/1992	Current Transformers
IS-2099/1986	Bushings for alternating voltages above 1000 V
ISS-2633/1964	Methods of testing uniformity of coating of zinc coated articles
IS-3231/1986	Electrical relays for power system protection
IS-1248/1983	Specification for Ammeters & Voltmeters
IS-335/1983	New insulating oils Electrical IEC 71 (For oils in CTs) Clearances

IS-2147/1962	Degree of protection provided by enclosures for low voltage switchgear & control gear
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- c) The arc quenching chambers shall have devices to ensure almost uniform distribution of voltage across the interrupters.
- d) Appropriate & adequate Capacity 415V AC indoor air Circuit Breaker as per the IEC 60898 / IEC 62271 – 100 or equivalent Indian Standards along with control circuit and protection relay circuit, fuses, annunciations and remote operating and controlling facility from the Main Control Room.
- e) Circuit breaker shall be C2/MI class under all duty conditions and shall be capable of performing their duties without opening resistor. The circuit breaker shall meet the duty requirement of any type of fault or fault location and shall be suitable for line charging and dropping when used on 6kV effectively grounded or ungrounded systems and perform make and break operations as per the stipulated duty cycles satisfactorily.
- f) The circuit breaker shall be capable for breaking the steady & transient magnetizing current corresponding to transformers. It shall also be capable of breaking line charging currents as per IEC- 62271-100 with a voltage factor of 1.4
- g) The rated transient recovery voltage for terminal fault and short line faults shall be as per IEC: 62271-100.
- h) The Contractor may note that total break time of the breaker shall not be exceeded under any duty conditions specified such as with the combined variation of the trip coil voltage, pneumatic pressure etc. While furnishing the proof of the total break time of complete circuit breaker, the Contractor may specifically bring out the effect of non-simultaneity between same pole and poles and show how it is covered in the guaranteed total break time.
- i) Contractor shall indicate the noise level of breaker at distance of 50 to 150 m from base of the breaker.
- j) While furnishing particulars regarding the D.C. component of the circuit breaker, the Contractor shall note that IEC-62271-100 requires that this value should correspond to the guaranteed minimum opening time under any condition of operation.
- k) The critical current which gives the longest arc duration at lock out pressure of extinguishing medium and arc duration shall be indicated.
- l) Contractor has to provide the type test reports for the CB before the dispatch.
- m) All the duty requirements specified above shall be provided with the support of adequate test reports.

5.1. Operating Mechanism of Circuit Breakers

- a) Circuit shall be vacuum type with electrically spring charged mechanism.
- b) The operating mechanism shall be anti-pumping and trip free (as per IEC definition) electrically under every method of closing. The mechanism of the breaker shall be such that the position of the breaker is maintained even after the leakage of operating media and / or gas. The circuit breaker shall be able to perform the duty cycle without any interruption.
- c) Electrical tripping shall be performed by shunt trip coil. Provision shall also be made for local electrical control. 'Local / remote' selector switch and close & trip push buttons shall be provided in the breaker central control cabinet. Remote located push buttons

and indicating lamps shall also be provided. The VCB coil DC supply through appropriately rated battery bank and charger to be supplied by the Contractor.

- d) Operating mechanism and all accessories shall be in local control cabinet. A central control cabinet for the three poles of the breaker shall be provided along with supply of necessary tubing, cables, etc.
- e) Mounting and supporting structure for Circuit Breaker: The circuit breakers should be self-supporting type. However, if necessary for the purpose of minimum ground clearance the circuit breakers should be mounted on raised steel structures which should be included in the scope of supply of circuit breaker. Bidder/Contractor to obtain the necessary information and data required for design of foundations of the circuit breaker be obtained from the CB supplier.
- f) Max. Impact loading in terms of equivalent static load both compression and upward due to opening/closing of the breakers. It shall be clearly stated whether these forces shall act simultaneously or at different timing.
- g) Necessary connecting materials such as clamps, bolts, nuts, washers etc. and fixing bolts for mounting the equipment on the supporting structures wherever required should be obtained from the circuit breaker supplier.
- h) General parameters: Vacuum type Circuit Breaker:

Particulars	Details
Type of circuit breaker	Vacuum type
Highest System Voltage	As per system design
Rated operating voltage	As per system design
Rated frequency	50 Hz (+3% to -5%)
Number of poles	Three (3)
Rated/ minimum power frequency Withstand voltage	As per system design
Rated lightning impulse Withstand voltage	As per system design
Rated operating duty cycle	0 - 0.3 sec. - CO - 3 min. - CO
Rated line charging breaking	As per IEC
Reclosing	Single and three phase high speed auto
Maximum fault level	As per system design
Auxiliary contacts	As required plus 6NO and 6NC contacts per
Noise level	Maximum 140dB at 50m distance from
Seismic acceleration	0.4 g horizontal

- i) Co-ordination of rated voltages, short circuit breaking current and rated normal current for guidance as per IS 13118 for rated voltage 33 kV and above
- j) Circuit Breaker Protection against
 - Over Current
 - Earth fault
 - Under voltage & over voltage protection
 - Under frequency & over frequency
 - SF6 gas pressure low (where applicable)
 - DC supply failure

5.2. Isolators

- a) The isolators and accessories shall conform in general to IEC 62271-102 (or equivalent Indian standard) except to the extent explicitly modified in specification.
- b) Each isolating switch should have the following particulars under the site conditions for the system under design (typical values for 36 kV system are given).
- c) General Parameters: Isolators

Particulars	Details
Operating mechanism of Isolator and Earth Switch	Motor operated
Nominal system voltage	As per system design
Highest system voltage	As per system design
Type	Outdoor (IP 65)
Rated short time current of isolator and earth switch	As per system design
Rated dynamic short time with stand current of isolator and earth switch	As per system design
Impulse withstand voltage with 1.2/50 micro sec. wave	As per system design
One minute power frequency withstand Voltage	As per system design
Temperature rise	As per Table-IV of IS: 9921
Rated mechanical terminal load	As per 62271-102

5.3. Indicating and Integrating Meters/Instruments:

- a. All indicating instruments shall be of switchboard type, back connected, suitable for flush mounting and provided with dust and vermin proof cases for tropical use and finished in suitable color. All instruments shall have practical laboratory means for adjustment of accuracy. The limits of errors for ammeters/voltmeters shall be those permissible for class 1.5 instruments as per IS: 1248.
- b. A.C. Static HT Tri Vector Meter:
A.C. Static HT Tri Vector Meter shall be installed as per STATE DISCOM's/STU's norms and shall be intimated while placement of order. The meters shall be located at eye level to facilitate observations of readings correctly.
- c. The ammeters and voltmeters shall be suitably scaled to indicate the current/voltage for all the rating of current/voltage transformers. A phase selector switch with four/six position shall be used to measure the current/voltage of each phase/line. The Contractor shall provide test certificate and calibration certificate along with the supply of the instrument.

- d. The meters shall be located at normal eye level to facilitate observation of readings correctly.

5.4. Surge Arrestors

1. The surge arrestors (SAs) shall conform in general to IEC 60099-4 or IS: 3070 except to the extent modified in the specification. Arresters shall be of hermetically sealed units, self-supporting construction, suitable for mounting on lattice type support structures. Contractor shall furnish the technical particulars of Surge arrester.
2. The SA's shall be of heavy duty station class and gapless Metal Oxide type without any series or shunt gaps. The SAs shall be capable of discharging over- voltages occurring during switching of unloaded transformers, and long lines.
3. Arrestors shall be complete with insulating base for mounting on structure.
4. Suitably enclosed for outdoor use and requiring no auxiliary or battery supply for operation shall be provided for each single pole unit with necessary connection.
5. The surge arrestors shall conform to type tests and shall be subjected to routine and acceptance tests in accordance with IEC-60099-4.
6. Each lightning arrestors should have the following particulars under the site conditions for the system under design:
 - i. Codes and Standard
IS 2309: Code of Practice for the protection of building and allied structures against lightning.
NFC 17-102: Lightning Protection with Early Streamer Air Termination rod
 - ii. Complete Solar Array with associated structure shall be protected from Direct Lightning Stroke. Lightning Protection for solar array shall be achieved with any or both of the following two systems as per specification provided in the following section;
 1. Single Rod Air Terminal (Faraday Rods),
 2. Early Streamer Emission (ESE) Air Terminal.

Suitable earthing and equipotential bonding shall be ensured for the air termination rods as per applicable standard/Equipment manufacturer guidelines. Current carrying parts and accessories such as clamps, fasteners, down conductor, Test links and earth termination etc. shall be preferably procured from OEM of Air Terminals if it is supplied by them as part of lightning protection system.

- iii. Lightning Protection System for solar array with single rod air terminal

Solar array of Plant shall be protected from direct lightning strike with straight or angled air termination rods of suitable class as per IS:2309 to be fixed with the module mounting structure (MMS). Air termination rods shall have minimum two clamps to be fixed with MMS and must be capable of carrying full lightning current. Contractor to ensure proper fixing of the clamps with MMS to allow lightning current to pass through the clamp without damage and to sustain the rods during high velocity wind. Contractor shall submit the calculation to determine the no. and location of air termination rods to be fixed on structure to

provide the lightning protection to each solar module and structure. Earth riser shall be connected to that part/pole of MMS which is nearest to air termination rod.

iv. Lightning Protection System for solar array with E.S.E air terminal

Solar array shall be protected from direct lightning stroke with Early Streamer Emission air terminal in accordance to NF C 17-102 (Latest revision). Number and location of ESE air terminal shall be decided during detail engineering. For this purpose, design calculation and AutoCAD drawing of the layout of ESE terminal shall be submitted to EESL/DISCOM for approval. ESE air terminal shall be type tested in any national/international approved lab for advance triggering time (ΔT) and lightning Impulse current test and type test report shall be submitted to EESL/DISCOM for approval.

- a. Each ESE air terminal shall be provided with separate earthing termination and test link for equipotential bonding of Lightning Protection System as per OEM guidelines/NFC 17 -102. Each ESE air terminal shall be equipped with lightning stroke counter to be fixed at suitable height in serial on the down conductor.
- b. ESE air terminal shall be erected on isolated foundation to be approved by EESL/DISCOM. If required, Suitable guy wire shall be used to support the mast of ESE terminal against the wind.

v. Location and layout of ESE terminal shall be in such a manner that it cast no shadow on the PV Modules during 08:30 AM to 04:30 PM.

vi. Lightning Protection System for Inverter Room (LCR) and MCR Contractor needs to provide the Lightning Protection for each inverter, Switchyard building and Main Control Room building in accordance to IS:2309.

5.5. Protective Relays

1. The Solar PV system and the associated power evacuation system interconnections should be protected as per IEC 61727 Ed.2, norms. Over current relays, differential protection relays (for grid tie power Transformer only) and earth fault relays have to be essentially provided. All relay should be numerical type & should also be remote operation and control enabled from the control room.
2. All the relays must be solid state type and based on open access communication protocol. The numerical relays shall have RS 485 port for communication.
3. The operating voltage of the relays shall be 110 V DC/220 V DC as per battery bank rating.
4. Necessary battery bank shall also be provided in order to supply uninterrupted power to relays and control & protection circuit of the Plant.
5. Detailed Design calculations shall be provided on fault power computations and the philosophy of protective relaying with respect to short circuit kA

calculations. Design, drawing and model of protection relay shall be approved by EESL/DISCOM/ state DISCOM.

6. The Contractor must submit the relay setting chart as a part of design documents in coordination with the connecting substation.

5.6. Contacts:

1. The moving & fixed contacts shall be made of hard drawn electrolytic grade copper strips and shall be heavy duty self-aligning & high pressure type preferably which applies pressure to the contact surfaces after the blades are fully closed and release the pressure before they start to open. High pressure type contacts shall wipe the contact surfaces, while opening and closing. The contacts shall be so designed that wiping, action shall not cause securing or abrasion on the contact surfaces. The wiping action shall be sufficient to remove oxide film, formed during the operation of the switches. The pressure shall be developed by rotation of the entire blade.
2. The temperature rise of contacts due to the flow of rated short circuit current for a period of 3 seconds shall not cause any annealing or welding of contacts.
3. The moving contacts, if provided, shall close first and open last so that no damage is caused due to arcing whatever to the main contacts. The Contractor shall give full details of such contacts with necessary drawings.
4. The arcing contacts, if provided shall close first and open last so that no damage is caused due to arcing whatever to the main contacts. The tender shall give full details of such contacts with necessary drawings.
5. The female contact and its tensioning by spring shall be such that there will, always, be a positive contact with adequate pressure to give enough contact surface for the passing of current. The springs provided should not go out of alignment or get entangled with the male contact during operation. The details of springs shall be furnished on the G.A. drawing.

5.7. Earthing Blades

1. The Isolators controlling the transmission line (underground transmission cables) shall be equipped with earthing blades. The Earthing blades shall be counter balanced to ensure easy operation.
2. Line earth switch shall consist of three Earthing links per Isolator which will normally rest against the frames, when the connected Isolator is in closed position. The Earthing links of all three phases shall be suitable for fitting on either side of the Isolator.
3. Short time current withstand capacity of earthing blades of Isolator Earthing Switch shall be same as that of the main blades of Isolator. The material of the earthing Isolator, Each earthing blade shall be provide with flexible copper connections of adequate length of not less than 60mm² are for connection between the operating shall and the base frame.
4. The rated making capacity of earthing switches shall be as specified in the applicable standard of isolators.

5.8. Insulators

1. Bushings shall be manufactured and tested in accordance with IS: 2099 & IEC: 137. Hollow column insulators shall be manufactured and tested in accordance with IEC: 60233/IS: 5261. The support insulators shall be manufactured and tested as per IS: 2544 / IEC: 600168/IEC: 600273. The insulators shall also conform to IEC 815 as applicable. Contractor shall furnish the technical particulars of all type of insulators used.
2. Porcelain insulator shall comply IS: 731-1976 or equivalent international standard and shall be homogenous, free from laminations, cavities and other flaws or imperfections that might affect the mechanical or dielectric quality and shall be thoroughly vitrified, tough and impervious to moisture. Hollow porcelain should be in one integral piece in green & fired stage.
3. Contractor may offer silicone rubber housed composite type insulator as an alternative to the above porcelain insulator with equivalent creep age distance.
4. Data sheets for the insulators with cantilever strength and compression strength, etc. shall be submitted.
5. Insulators shall be rated for not less than 6kN for bus bar supports and 4kN for isolators.

5.9. Bus Bar

- a. The outdoor bus-bars and equipment connections shall be of suitable size as per norms of MSEDCL/APSPDCL.
- b. The bus-bars and the connection jumpers shall be supported on post insulators wherever required.
- c. The ACSR bus bars are an over ground system of wires strung between two supporting structures and supported by strain type insulators. The stringing tension may be limited to 500-900 kg depending upon the size of the conductor used. These types of bus bars are suitable for earthquake prone areas. All the bus bars are to be provided with insulating sleeves with appropriate color code.
- d. Bus bar Material – The materials in common use for bus bars and connections of the strain type are ACSR conductor or as per DISCOMs requirement.
- e. Since aluminium oxides rapidly, great care is necessary in making connections. In the case of long spans expansion joints should be provided to avoid strain on the supporting insulators due to thermal expansion or contraction of pipe.
- f. The bus bar sizes should meet the electrical and mechanical requirements of the specific application for which they are chosen.

Note: Unless otherwise specified, all equipment and materials shall conform to the latest applicable Indian Standards. Equipment complying with any other International Standards will also be considered if it ensures performance of equipment equal to a superior to Indian Standard.

5.10. Control & Relay Panel

- a. General Requirement:
 - i. The control & relay panel shall be free standing, simplex type, floor mounting type, fabricated from 2 mm thick MS sheet for main enclosure and 1.6 mm

thick MS sheet for internals and partitions. The main enclosure shall be mounted on a base frame fabricated out of 100x50 ISMC mild steel section.

- ii. The enclosure external finish color shade shall be decided by the EESL/DISCOM, The internal surface shall have a glossy white finish all over.
- iii. The control & relay panel shall contain the following metering and protection devices:
 - Metering, Indications & Controls
 - Ammeter:
 - Ammeter selector switch
 - Voltmeter:
 - Voltmeter selector switch
 - Load manager to display the following parameters: MW, MVA, MVA_{rh}, MVA_r Cos , Hz,
 - Indication lamps for R, Y, B phases, Breaker 'ON' (R), Breaker 'OFF' (G), Breaker 'TRIP' (A), Spring charged (W), Trip Circuit Healthy (B)
 - TNC switch, spring return to neutral position shall be provided for circuit breaker operation.
 - Local / Remote selection switch for circuit breaker operation
 - Semaphore indicators (LED type) for CB and Isolator 'Open' & 'Close' positions
 - Mimic diagram for the systems with aluminium strips and 'ON' 'OFF' indications for isolators

Standards and Codes:

Standard/Code	Description
IS 3231	Electrical relays for power systems protection
IEC 60255	Measuring relays and protection equipment
IEC 61850	Communication networks and systems for power utility automation
IEC 61131-3	Programmable controllers - Part 3: Programming languages
IS 9385	High voltage fuses
IS 9431	Indoor post insulators of organic material for systems with nominal voltages greater than 1000 V up to and including 300 kV
IEC 60099-4	Surge arresters - Part 4: Metal-oxide surge arresters without gaps for A.C. systems
IS 3070-3	Lightning Arresters for Alternating Current Systems - Part 3: Metal Oxide Lightning Arresters Without Gaps
IEC 62052-11	Electricity metering equipment (A.C.) - General requirements, tests and test conditions - Part 11: Metering equipment
IEC 62053	Electricity metering equipment (A.C.) - Particular requirements
IS 14697	AC Static Transformer Operated Watthour and Var-hour Meters, Class 0.2S and 0.5S

5.11. Control Circuit

- a. Control supply for breaker closing / tripping - 110V DC
- b. Air Circuit Breaker spring charge motor – 240 V AC, 1 phase.
- c. Moulded Case Circuit Breakers – 240 V AC, 1 phase.
- d. Indications, annunciation – 110V DC
- e. Space heater, sockets, etc. – 240 V AC, 1 phase.

5.12. Bus Bar & Cable Cavity

1. The material for main bus bars and tap off bus bars shall be electrolytic grade aluminum with properly color-coded HR PVC sleeved insulation
2. Bus bar shall be suitable for short circuit rating and current suitable for all connected load.
3. Cable entry for incoming and outgoing cables shall be from Bottom.
4. A suitable gland plate shall be supplied for termination of power, control and instrumentation cables.
5. Whenever feeders are housed in multi-tier configuration, these tiers shall be segregated by sheet metal barriers.
6. Earthing: Earthing bus bar shall be terminated at both ends of the switchgear to suit the connections to outside earthing conductor. All components inside the module are required to be earthed individually and are to be looped and connected to the horizontal earth bus. All the non-current carrying parts of the panels, e.g., enclosure, must be connected to earth as per the regulations.

5.13. Terminals:

1. CT circuit - Isolating link type terminals with shorting facility
2. PT circuit – clip on type terminals
3. Spare contacts shall be wired up to terminal block. 10% spare terminals shall be provided for each module

5.14. Specific Requirement

1. All ACBs/ VCBs, as applicable, shall be 4 pole, electrically operated, draw-out type, with closing coil, spring charge motor, trip coil, TNC switch for close and trip, manual closing and tripping push buttons, door I/L, test and service position micro switches, emergency P.B., safety shutters, etc. The circuit breaker shall be provided with anti-pumping feature.
2. ACBs/ VCBs, as applicable, shall be complete with microprocessor release and shall be provided with over current, short circuit and earth fault protections.
3. Minimum 10% spare feeders of each rating shall be provided in the switchgear.
4. All current transformers shall have 5/1A secondary and all meters shall be suitable for 5/1A operation.
5. All indicating lamps shall be of LED cluster type. ACB feeders shall be provided with ON, OFF, AUTOTRIP, SPRING CHARGED, TEST, SERVICE, TRIP CIRCUIT HEALTHY indications
6. All indicating instruments, including MFM, shall be flush mounting, Digital type and of standard size.
7. Window annunciator with hooter and accept, test, reset button shall be provided. Necessary auxiliary relays for contact multiplication shall be provided in the panel.

8. The maximum temperature of the bus bars, droppers and contacts at continuous current rating under site reference ambient temperature of 50° C shall not exceed 105° C.
9. Instrumentation: Switchgear instrumentation shall be provided as follows:
 - i. Mains Incomer – Voltmeter with selector switch
 - ii. Ammeter with selector switch
 - iii. Power Factor meter
 - iv. Frequency meter
 - v. TVM + MD meter
 - vi. Potential indicating lamps
 - vii. Outgoing Feeders
 - viii. Ammeter with selector switch on all feeders

6. LT/HT Switchgear

- Standards and Codes for HT switchgear
 - All equipment provided under HT switchgear shall comply with latest editions and amendments of the relevant IEC standards and IS codes. In particular, the switchgear shall comply with the following standards and codes.

Standards and Codes:

Standard/Code	Description
IS/IEC 62271-1	High Voltage Switchgear and Control gear - Part 1: Common Specifications
IS/IEC 62271-100	High Voltage Switchgear and Control gear - Part 100: AC Circuit Breakers
IS/IEC 62271-102	High Voltage Switchgear and Control gear - Part 102: AC Disconnectors and Earthing Switches
IS/IEC 62271-200	High Voltage Switchgear and Control gear - Part 200: AC Metal Enclosed Switchgear and Control gear for Rated Voltages Above 1 kV and Up to and Including 52 kV
IEC 61869	Instrument Transformers
IS 3231	Electrical relays for power systems protection
IEC 60255	Measuring relays and protection equipment
IEC 61850	Communication networks and systems for power utility automation
IEC 61131-3	Programmable controllers - Part 3: Programming languages
IS 9385	High voltage fuses
IS 9431	Indoor post insulators of organic material for systems with nominal voltages greater than 1000 V up to and including 300 kV
IEC 60099-4	Surge arresters - Part 4: Metal-oxide surge arresters without gaps for A.C. systems
IS 3070-3	Lightning Arresters for Alternating Current Systems - Part 3: Metal Oxide Lightning Arresters Without Gaps
IEC 62052-11	Electricity metering equipment (A.C.) - General requirements, tests and test conditions - Part 11: Metering equipment
IEC 62053	Electricity metering equipment (A.C.) - Particular requirements
IS 14697	IS 14697 AC Static Transformer Operated Watthour and Var-hour Meters, Class 0.2S and 0.5S

6.1. Low/ High Voltage Switchgear Panels

- a. The LT/ HT switchgear panels shall be designed as per the relevant IS codes and as per the approved design for the panel. All the parts of the panel must be rated as per the relevant rated voltage level. All the panels must have multifunction meters (MFM) flushed with the surface of the panels. However, the outgoing feeder can have Tri vector meter (TVM) for the energy accounting.
- b. The Power Control Centre (PCC)/ Switchgear shall be rated for the maximum output of the supply transformer feeding the system. The short circuit withstand rating (1 sec) at rated voltage of the switchgear shall be relevant to the existing electrical system short circuit ratings.

- c. The configuration of the PCCs shall be as per the Single Line Diagram of the system.
- d. Power Control Centers (Construction)
- Single front / compartmentalized, modular design, degree of protection IP52 with provision of extension on both sides.
 - Incomer feeders: mains incomer - Electrically operated draw out type Air Circuit Breakers (ACBs)/ Vacuum Circuit breakers (VCBs), as applicable.
 - Outgoing feeders: Moulded Case Circuit Breakers (MCCBs)/ electrically operated draw out type Air Circuit Breakers (ACBs) / Vacuum Circuit Breakers (VCBs), as applicable.
 - The color finish shade of switchgear enclosure for interior shall be glossy white & for exterior it shall be light grey, semi glossy shade 631 of IS: 5. if a different exterior shade is desired by the EESL/DISCOM, the same shall be intimated to the supplier.
 - The PCC shall be fabricated out of CRGO sheet steel; 2 mm thick for the outer shall all-round. The internal walls and separators shall be of 1.6 mm thick CRGO sheet steel.
 - The gland plates shall be 3 mm thick.

The detailed requirements are however discussed in the previous sections.

Type Test for HT switchgear:

Test Standard	Relevant	IEC Clause
Switchgear Panel		
Dielectric tests		
Power frequency voltage test	IEC 62271-200	6.2.6.1
Lightning impulse voltage test	IEC 62271-200	6.2.6.2
Dielectric tests on auxiliary and control circuits	IEC 62271-200	6.2.10
Measurement of the resistance of the main circuit	IEC 62271-200	6.4.1
Temperature-rise tests	IEC 62271-200	6.5
Short-time withstand current and peak withstand current tests	IEC 62271-200	6.6
Verification of the IP coding	IEC 62271-200	6.7.1
Verification of making and breaking capacities	IEC 62271-200	6.101
Mechanical operation test	IEC 62271-200	6.102
Internal arc test	IEC 62271-200	6.106
Circuit Breaker		
Mechanical operation test at ambient air temperature (M2 Class)	IEC 62271-100	6.101.2
Basic short-circuit test-duties	IEC 62271-100	6.106

Relays		
Vibration tests	IEC 60255-21-1	
Shock and bump tests	IEC 60255-21-2	
Seismic tests	IEC 60255-21-3	
Electromagnetic compatibility requirements	IEC 60255-26	
Product safety requirements	IEC 60255-27	
Common requirements	IEC 60255-1	
Functional requirements	Relevant parts of IEC 60255-100 series	
Communication requirements	IEC 61850	
Current Transformers		
Temperature-rise test	IEC 61869-2	7.2.2
Impulse voltage withstand test on primary terminals	IEC 61869-2	7.2.3
Tests for accuracy	IEC 61869-2	7.2.6
Short-time current tests	IEC 61869-2	7.2.201
Voltage Transformer		
Temperature-rise test	IEC 61869-3	7.2.2
Impulse voltage withstand test on primary terminals	IEC 61869-3	7.2.3
Electromagnetic Compatibility tests	IEC 61869-3	7.2.5
Test for accuracy	IEC 61869-3	7.2.6
Short-circuit withstand capability test	IEC 61869-3	7.2.301
Communication requirements	IEC 61850	
Current Transformers		
Temperature-rise test	IEC 61869-2	7.2.2
Impulse voltage withstand test on primary terminals	IEC 61869-2	7.2.3
Tests for accuracy	IEC 61869-2	7.2.6
Short-time current tests	IEC 61869-2	7.2.201
Voltage Transformer		
Temperature-rise test	IEC 61869-3	7.2.2
Impulse voltage withstand test on primary terminals	IEC 61869-3	7.2.3
Electromagnetic Compatibility tests	IEC 61869-3	7.2.5
Test for accuracy	IEC 61869-3	7.2.6
Short-circuit withstand capability test	IEC 61869-3	7.2.301

7. DC Cable and Wires

- a) All cables and connectors for use for installation of solar field must be of solar grade which can withstand harsh environment conditions including High temperatures, UV radiation, rain, humidity, dirt, salt, burial and attack by moss and microbes for 25 years and voltages as per latest IEC standards. (Note: DC cables for outdoor installations should comply with the TUV 2PfG 1169/09.07 for service life expectancy of 25 years)
- b) **Insulation:** Outer sheath of cables shall be electron beam cross-linked XLPO type and black in colour. In addition, Cable drum no. / Batch no. to be embossed/ printed at every one meter. Cable Jacket should also be electron beam cross- linked XLPO, flame retardant, UV resistant and black in colour. DC positive current carrying cables should have marking of red line on black outer sheath.
- c) All the DC cables from SMU to Inverter must be Single Core cable.
- d) DC cables used from solar modules to array junction box shall be solar grade copper (Cu) with XLPO insulation and rated for 1.1kV only. However, the cables used from array junction box to inverter can be XLPE Aluminium with 1.1kV rating as per relevant standards.
- e) In addition to manufacturer's identification on DC cables as per relevant standard, following marking shall also be provided over outer sheath.
 - i. Cable size and voltage grade
 - ii. Word 'FRNC/ FRLS' (as applicable) at every metre
 - iii. Sequential marking of length of the cable in metres at every metre
- f) Wires with sufficient ampacity and parameters shall be designed and used so that maximum voltage-drop at full power from the PV modules to inverter should be less than 1.5%. Successful Bidder/Contractor shall provide voltage drop calculations in unlocked excel sheet.
- g) Only terminal cable joints shall be accepted. No cable joint to join two cable ends shall be accepted. Necessary bimetallic connectors have to be used for connecting Cu bus bar and Al cables or vice-versa. All wires used on the LT side shall conform to IS and should be of appropriate voltage grade. Only copper conductor wires (up to Array Junction Box) compliant with IEC 60228, Class 5 of reputed make shall be used.
- h) All high voltage cables connecting the main junction box/string inverters to the transformers should be PVC insulated grade conforming to IS 1554 and cables shall also conform to IEC 60189 for test and measuring the methods.
- i) Cable terminations shall be made with suitable cable lugs & sockets etc., crimped properly and passed through brass compression type cable glands at the entry & exit point of the cubicles.
- j) All cable/wires shall be provided with UV resistant printed ferrules for DC side however, for HT cables, punched/ embossed aluminium tags are required. The marking on tags shall be done with good quality letter and number ferrules of proper sizes so that the cables can be identified easily.
- k) The wiring for modules interconnection should be weather resistant. However, for crossing with road, drain and trenches etc., the cable must pass through GI / Hume pipe of appropriate size with proper protection at ends to prevent any damage inflicted by the edge of the pipe.
- l) Type test reports and Data sheets of individual cable sizes (HT & LT) shall be submitted for approval by EESL/DISCOM.

Standards and codes:

Cable	From	To	Conductor/ Insulation	Voltage Rating	Applicable Standard
Solar Cable*	Module	SMU	Copper/ XLPO	1.1 kV DC	TUV 2 PfG 1169/08.2007
DC Cable	SMU	Power Conditioning Unit	Copper or Aluminium/ XLPE	1.1 kV DC	IS 7098 Part I
* Cable used for module interconnection shall also be referred as solar cable.					

7.1. Switchboard box / DC Distribution Box (DCDB) / AC Distribution Box (ACDB) panels

- a) Successful Bidder/Contractor shall provide sufficient no. of switchboards / DCDB/ ACDB wherever required.
- b) All boxes/ panels should be equipped with appropriate functionality, safety (including fuses, grounding, etc.) and protection.
- c) The terminals will be connected to bus-bar arrangement of proper sizes to be provided. The panels/ boxes will have suitable cable entry points fitted with cable glands of appropriate sizes for both incoming and outgoing cables.
- d) Adequate rating fuses & isolating MCB/ MCCB should be provided.
- e) The panels/ boxes shall have suitable arrangement for the followings:
 - Provide arrangement for disconnection
 - Provide a test point for quick fault location
 - To provide isolation
 - The current carrying rating of the boxes/ panels shall be suitable with adequate safety factor
 - The rating of the boxes/ panels shall be suitable with adequate safety factor to inter connect to the local/ internal grid
 - Thermal/ heat dissipation arrangement/ Vent for safe operation.
 - Adequate number of spare terminals to receive suitable runs and size of cables required for the Inverter/Transformer rating
- f) The boxes/ panels must be grounded properly to ensure all safety related measures for safe operation. The parts of panel, wherever applicable, must be insulated properly.
- g) All the Panels to be manufactured with sufficient space for working and must have temperature suitability up to 85⁰ C with separate cable and bus bar alley.
- h) The boxes/ panels shall be dust, vermin, and waterproof and made of thermoplastic/ metallic in compliance with IEC 62208, which should be sunlight/ UV resistive as well as fire retardant & must have minimum protection to IP 65(Outdoor)/ IP 20(indoor) and Protection Class II.

All panels/ boxes shall be provided with adequately rated bus-bar, incoming control, outgoing control etc. as a separate compartment inside the panel to meet the requirements of the

Chief Electrical Inspector General (CEIG)/CEA. All live terminals and bus bars shall be shrouded.

8. AC Cables:

Standards and Codes:

IS 7098	Crosslinked polyethylene insulated PVC sheathed cables, Part 1: For working voltage up to and including 1100 V
IS 7098	Crosslinked Polyethylene Insulated Thermoplastics Sheathed Cables Part 2: for Working Voltages from 3.3 kV up to and Including 33 kV

- All AC cables shall be flame retardant, low smoke (FRLS) type designed to withstand all mechanical, electrical and thermal stresses develop under steady state and transient operating conditions.
- Only terminal cable joints shall be accepted. No cable joint to join two cable ends shall be accepted. However, cable joints may be allowed if the route length is more than maximum available drum length subject to Owner's approval.
- In addition to manufacturer's identification on cables as per relevant standard, following marking shall also be provided over outer sheath.
 - Cable size and voltage grade
 - Word 'FRLS' at every metre
 - Sequential marking of length of the cable in metres at every metre
- Cables shall be sized based on the following considerations:
 - Rated current the equipment
 - Maximum voltage drop in LT cable (from inverter to inverter transformer) shall be limited to 0.5% of the rated voltage. For HT cables (from inverter transformer to interconnection point), maximum voltage drop shall be limited to 0.5% of the rated voltage. Successful Bidder shall provide voltage drop calculations in excel sheet.
 - Short circuit withstand capability as per design for 1s.
 - De-rating factors according to laying pattern

9. Earthing

Earthing system shall comply with latest revisions and amendments of the relevant IEC standards and IS codes. In particular, earthing system shall comply with the following standards and codes.

Standard/Code	Description
IS 3043	Code of Practice for Earthing
IEEE 80	IEEE Guide for Safety in AC Substation Grounding
IEEE 142	IEEE Recommended Practice for Grounding of Industrial and Commercial Power Systems
Indian Electricity Rules	

- Earthing system shall be designed based on system fault current and soil resistivity value obtained from geo-technical investigation report. Earth grid shall be formed consisting of number of earth electrodes sufficient enough to dissipate the system fault current interconnected by earthing conductors.
- The earth electrode shall be made of high tensile low carbon steel rod, molecularly bonded by high conductivity copper on outer surface with coating thickness not less than 250 micron as per relevant standards. Suitable earth enhancing material shall be filled around the electrode to lower the resistance to earth. Inspection chamber and lid shall be provided as per IS 3043.
- Earth conductors shall be made of copper bonded steel or galvanized steel of sufficient cross section to carry the fault current and withstand corrosion.
- Earth electrodes shall not be situated within 1.5m from any building whose installation system is being earthed. Minimum distance between earth electrodes shall be the driven depth of the electrode.
- Every alternate post of the transformer yard and switchyard fence shall be connected to the earth grid by one GS flat and gates by flexible lead to the earthed post.
- All welded connections shall be made by electric arc welding. For rust protection the welds should be treated with red lead compound and afterwards thickly coated with bitumen compound.

10. Lightning Protection System

- Lightning Protection System for entire plant against direct lighting strokes shall be provided with Early Streamer Emission (ESE) Air Terminal as per NFC 17-102:2011.
- Protection Level for the entire plant shall be level – I.
- Each ESE air terminal shall be provided with following accessories.
 - I. Highly insulated poly-plastic adaptor to fix the ESE air terminal with the FRP mast
 - II. Fiberglass Reinforced Plastic (FRP) mast
 - III. Coupler to connect FRP mast with GI mast
 - IV. Galvanized Iron mast with base plate and guy wire kit
 - V. Down-conductor: PVC insulated flexible copper cable of suitable size complying with EN 50164-2 or equivalent standard. It shall be routed along the mast with suitable fixings and connectors. .
 - VI. Test joint with each down conductor
 - VII. Lightning event counter complying with EN 50164-6 or equivalent standard. It shall be fixed at suitable height in series with the down conductor.
 - VIII. Earth termination system in accordance with NFC 17-102. Earth electrodes shall comply with the EN 50164-2 or equivalent standard. Earth enhancing compounds complying with EN 50164-7 or equivalent standard, may be used where soil resistivity is higher and making it impossible to achieve system resistance within specified limit.
- Accessories listed above are indicative only and any other fittings or accessories, which are usual or necessary for satisfactory operation of the lightning protection shall be provided by the Contractor without extra charges.

- Necessary foundation/anchoring for holding the lightning mast in position to be made after giving due consideration to shadow on PV array, maximum wind speed and maintenance requirement at site in future.

11. SCADA and Remote Monitoring System

1. The Plant shall be automatically operated and shall be controlled by microprocessor based control system SCADA and should be Open Platform Communications (OPC) compliant. There shall be simultaneous data logging, recording and display system for continuous monitoring of data for different parameters of different sub systems, power supply of the power Plant at DC side and AC side.
2. An integrated SCADA shall be supplied which should be capable of communicating with all inverters and provide information of the entire Solar PV Grid interactive power Plant.
3. The SCADA shall be string level monitoring compatible and shall have features of remote access to the real time data. SCADA shall have features for generating the day ahead schedule of generation based on historical data/ suitable logic. Also, system must be capable of sending the telemetry data to the local SLDC via GPRS/ GSM/ suitable mode.
4. Computer-aided data acquisition unit shall be a separate & individual system comprising of different transducers to read the different variable parameters, A/D converter, multiplexer, de-multiplexer, interfacing hardware and software which will be robust & rugged suitable to operate in the control room Environment.
5. Reliable sensors for solar insolation, temperature, and other weather and electrical parameters are to be supplied with the data logger unit.
6. The Data Acquisition System should be housed in a desk made of steel sheet.
7. All data shall be recorded chronologically date wise. The data file should be MS Excel/ CSV compatible. The data, if needed, can be accessible remotely through authorized access. The data logger shall have internal reliable battery backup and data storage capacity to record all sorts of data simultaneously round the clock. All data shall be stored in a common work sheet chronologically and representation of monitored data shall be in graphics mode or in tabulation form. All instantaneous data can be shown in the Computer Screen. Provision should be available for Remote Monitoring.
8. SCADA shall measure and continuously record electrical parameters and provide following data (but not limited to) at a 5-15 minute interval.
9. SCADA shall have feature to be integrated with the local system as well remotely via the web using either a standard modem or a GSM/WIFI modem. The Contractor shall provide compatible software and hardware so that data can be transmitted via. Standard modem.
10. This will be the Contractor's responsibility to apply and get the suitable connection for SCADA, office & control room on behalf of the EESL/DISCOM & all the expenditures including payment of periodic bills of Internet provider shall be met by the Contractor.
11. SCADA shall be provided with reliable power supply along with backup supply for at least one hour to cater to outage of grid.

12. The SCADA shall be compatible to the requirements for measuring and reporting the performance-ratio (PR) of the Plant.
13. The Contractor shall provide all administrative rights/ privileges/passwords of the SCADA system to the EESL/DISCOM. The EESL/DISCOM have rights over the data generated in the Plant.

12. Power and Control Cables specifications on AC side

1. The size of each type of cable selected shall be based on minimum voltage drop; however the maximum drop shall be limited to 2%. Due consideration shall be made for the de-rating of the cables with respect to the laying pattern in buried trenches / on cable trays, while sizing the cables.
2. All cables shall be supplied in the single largest length to restrict the straight-through joints to the minimum number.
3. Only terminal cable joints shall be accepted. No cable joint to join two cable ends shall be accepted. All cable/wires shall be marked with good quality letter and number ferrules of proper sizes so that the cables can be identified easily. The ferrules used must be UV resistant. However, for HT cables, embossed ferrules can be used.
4. Cable terminations shall be made with suitable cable lugs & sockets etc., crimped properly and passed through brass compression type cable glands at the entry & exit point of the cubicles.
5. The cables shall be adequately insulated for the voltage required and shall be suitably colour coded for the required service. Bending radii for cables shall be as per manufacturer's recommendations and IS: 1255.
6. Cables inside the equipment room, control room and in the switchyard shall be laid in Galvanized Cable Trays mounted on mild steel supports duly painted, in constructed trenches with RCC raft and sidewalls or bricks sidewalls and provided with removable RCC covers.
7. All the communication cables (RS 485, fibre optics etc.) must be supplied with type test reports and shall laid in accordance with the relevant IS codes. It must be laid so that there is no interference with the power cables.
8. Type test reports and Data sheets of individual cable sizes (HT & LT) shall be submitted for approval by EESL/DISCOM. Drum numbers and drum length details shall be submitted with each consignment

12.1. Codes and Standards

1. IS: 1255 Code of practice for installation and maintenance of power cables Up to and including 33kV rating.
2. IS: 9537 Conduits for electrical installation.
3. IS: 13573 Joints and termination for polymer cables for working voltages from 6.6kV up to and including 33kV performance requirements and type tests.
4. VDE 0278 Tests on cable terminations and straight through joints.
5. BS 6121 Specification for mechanical cable glands for elastomers and Plastic insulated cables.
6. Indian Electricity Act & Indian Electricity Rules

12.2. Design and Constructional Features

1. Inter Plant Cabling

Interplant cabling for main routes shall be laid in Cable trenches/cable trays/buried/duct banks. In case of Duct banks, pull-pits shall be filled with sand and provided with a PCC covering. All buried cables shall be armoured.

12.3. Cable glands

Cable shall be terminated using double compression type cable glands. Cable glands shall conform to BS: 6121 and be of robust construction capable of clamping cable and cable armour (for armoured cables) firmly without injury to insulation. Cable glands shall be made of heavy duty brass machine finished and nickel chrome plated. Thickness of plating shall not be less than 10 micron. All washers and hardware shall also be made of brass with nickel chrome plating. Rubber components shall be of neoprene or better synthetic material and of tested quality. Cable glands shall be suitable for the sizes of cable supplied/erected.

12.4. Cable lugs/ferrules

Cable lugs/ferrules for power cables shall be tinned copper solder less crimping type suitable for aluminum compacted conductor cables. Cable lugs and ferrules for control cables shall be tinned copper type. The cable lugs for control cables shall be provided with insulating sleeve and shall suit the type of terminals provided on the equipments. Cable lugs and ferrule shall conform to relevant standard.

12.5. Trefoil clamps

Trefoil clamps for single core cables shall be pressure die cast aluminum or fibre glass or nylon and shall include necessary fixing accessories like G.I. nuts, bolts, washers, etc. Trefoil clamps shall have adequate mechanical strength to withstand the forces generated by the peak value of maximum system short circuit current.

12.6. Cable Clamps & Straps

The cable clamps required to clamp multicore cables on vertical run shall be made up of suitable size. For clamping the multicore cables, self- locking, de-interlocking type nylon clamps/straps shall be used. The clamps/straps shall have sufficient strength and shall not get affected by direct exposure to sun rays and outdoor environment.

12.7. Installation

Cable tray and Support System Installation

- Cables shall run in cable trays mounted horizontally or vertically on cable tray support system which in turn shall be supported from floor, ceiling, overhead structures, trestles, pipe racks, trenches or other building structures.
- Horizontally running cable trays shall be clamped by bolting to cantilever arms and vertically running cable trays shall be bolted to main support channel by suitable bracket/clamps on both top and bottom side rails at an interval of 2000 mm in general.
- For vertical cable risers/shafts cable trays shall be supported at an interval of 1000mm in general. Fixing of cable trays to cantilever arms or main support channel by welding shall not be accepted. Cable tray installation shall generally be carried out as per the approved guidelines/ drawings.
- The cantilever arms shall be positioned on the main support channel with a minimum vertical spacing of 300 mm unless otherwise indicated.
- All cable way sections shall have identification, designations as per cable way layout drawings and painted/stenciled at each end of cable way and where there is a branch connection to another cable way.

12.8. Conduits/Pipes/Ducts Installation

1. The Contractor shall ensure for properly embedding conduit pipe sleeves wherever necessary for cabling work. All openings in the floor/roof/wall /cable tunnel/cable trenches made for conduit installation shall be sealed and made water proof by the Contractor.
2. GI pull wire of adequate size shall be laid in all conduits before installation. Metallic conduit runs at termination shall have two lock nuts wherever required for junction boxes etc.
3. Conduit runs/sleeves shall be provided with PVC bushings having round edge at each end. All conduits/pipes shall have their ends closed by caps until cables are pulled. After cables are pulled, the ends of conduits/pipes shall be sealed with Glass wool/Cement Mortar/Putty to prevent entrance of moisture and foreign material.
4. Exposed conduit/pipe shall be adequately supported by racks, clamps, straps or by other approved means. Conduits /pipe support shall be installed square and true to line and grade with an average spacing between the supports as given below, unless specified otherwise.

12.9. Cable Installation

Cable installation shall be carried out as per IS: 1255 and other applicable standards. For Cable unloading, pulling etc. Following guidelines shall be followed in general:

1. Cable drums shall be unloaded, handled and stored in an approved manner on hard and well drained surface so that they may not sink. In no case shall be drum be stored flat i.e. with flange horizontal. Rolling of drums shall be avoided as far as possible. For short distances, the drums may be rolled provided they are rolled slowly and in proper direction as marked on the drum. In absence of any indication, the drums may be rolled in the same direction as it was rolled during taking up the cables. For unreeling the cable, the drum shall be mounted on suitable jacks or on

cable wheels and shall be rolled slowly so that cable comes out over the drum and not from below. All possible care shall be taken during unreeling and laying to avoid damage due to twist, kink or sharp bends. Cable ends shall be provided with sealed plastic caps to prevent damage and ingress of moisture.

2. While laying cable, ground rollers shall be used at every 2 meter interval to avoid cable touching ground. The cables shall be pushed over the rollers by a gang of people positioned in between the rollers. Cables shall not be pulled from the end without having intermediate pushing arrangements. Pulling tension shall not exceed the values recommended by cable manufacturer. Selection of cable drums for each run shall be so planned so as to avoid using straight through joints. Care should be taken while laying the cables so as to avoid damage to cables. If any particular cable is damaged, the same shall be repaired or changed to the satisfaction of Project Manager.
3. Bending radii for cables shall be as per manufacturer's recommendations and IS: 1255.
4. Where cables cross roads/rail tracks, the cables shall be laid in Hume pipe/HDPE pipe.
5. No joints shall be allowed in trip circuits, protection circuits and CT/PT circuits. Also joints in critical equipment in main plant area shall not be permitted. Vendor shall identify and accordingly procure the cable drum length.
6. In each cable run some extra length shall be kept at suitable point to enable one LT/two HT straight through joints to made, should the cable develop fault at a later stage. Control cable termination inside equipment enclosure shall have sufficient lengths so that shifting of termination in terminal blocks can be done without requiring any splicing.

12.10. Separation

At least 300mm clearance shall be provided between:

- HT power & LT power cables,
- LT power & LT control/instrumentation cables

12.11. Directly Buried Cables

- Cable trenches shall be constructed for directly buried cables. Construction of cable trench for cables shall include excavation, preparation of sieved sand bedding, riddled soil cover, supply and installation of brick or concrete protective covers, back filling and compacting, supply and installation of route markers and joint markers. Laying of cables and providing protective covering shall be as per IS: 1255.
- RCC cable route and RCC joint markers shall be provided wherever required. The voltage grade of the higher voltage cables in route shall be engraved on the marker. Location of underground cable joints shall be indicated with cable marker with an additional inscription "Cable Joint".

12.12. Cable Terminations & Connections

- i. Work shall include all clamps, fittings etc. and clamping, fitting, fixing, plumbing, soldering, drilling, cutting, taping, preparation of cable end, crimping of lug, insulated sleeving over control cable lugs, heat shrinking (where applicable), connecting to cable terminal, shorting and grounding as required to complete the job.
- ii. The equipment will be generally provided with undrilled gland plates for cables/conduit entry. The Contractor shall be responsible for punching of gland plates, painting and touching up. Holes shall not be made by gas cutting. The holes shall be true in shape. All cable entry points shall be sealed and made vermin and dust proof. Unused openings shall be effectively sealed by 2mm thick aluminium sheets.
- iii. Control cable cores entering control panel/switchgear/MCC/miscellaneous panels shall be neatly bunched, clamped and tied with self-locking type nylon cable ties with de interlocking facility to keep them in position.
- iv. All the cores of the control cable to be terminated shall have identification by providing ferrules at either end of the core, each ferrule shall be indelible, printed single tube ferrule and shall include the complete wire number and TB number as per the drawings. The ferrule shall fit tightly on the core. Spare cores shall have similar ferrules with suffix sp1, sp2, ---etc. along with cable numbers and coiled up after end sealing.
- v. All cable terminations shall be appropriately tightened to ensure secure and reliable connections.

Note: Contractor must comply with the relevant grid regulations, DISCOM'S, State Transco's and CEA's guidelines with respect to all the works corresponding to power evacuation, transmission, termination along with metering at designated substation.

12.13. Danger Plates

Size of each Danger Notice plates shall be 200 mm x 150 mm made of mild steel sheet and at least 2 mm thick, and vitreous enamelled white on both sides and with inscription in signal red colors on front side as required. The inscriptions shall be in Hindi, Local Language and English.

12.14. Fire alarm System

1. Any rooms shall have fire detection and alarm system installed as per relevant standards and regulations. The installation shall meet all applicable statutory requirements, safety regulations in terms of fire protection.
2. Liquefied CO2/ Foam/ ABC type fire extinguisher shall be upright type of capacity 5/10 kg having IS: 2171. 7 IS: 10658 marked. The fire extinguisher shall be suitable for fighting fire of Oils, Solvents, Gases, Paints, Varnishes, Electrical Wiring, Live Machinery Fires, and all Flammable Liquid & Gas. Contractor shall provide portable fire extinguisher as per the recommendation by relevant fire safety authority.
3. The minimum 2 no. of fire extinguishers (CO2 and Foam type each) shall be provided at every buildings/enclose, however Contractor must comply with existing building code for fire Protection by NFPA, IS & State Fire Protection Department.

4. Sand bucket should be wall mounted made from at least 24 SWG sheet with bracket fixing on wall conforming to IS 2546 at strategic locations.
5. The plan for fire extinguishing must be provided by the Contractor to EESL/DISCOM for the approval.

12.15. Testing Instruments for Electrical & Electronic

Contractor shall also provide required set of onsite testing instruments/equipment viz

- (i) Earth resistance tester:

Sl. No	Parameters	Specification
1	Display	LCD Digital Display with backlight
2	Range	Earth Resistance: up to 2000 Ω Earth Voltage : 200 V
3	Safety Ratings	IP 56
4	Programmable Limits setting	Enabled
Accessories		
1	Earth Ground Stakes (4 Nos)	
2	Three cable reels with cable length up to 20 m	
3	Carry Case-1 (capable of handling tester along with accessories)	
4	1 set of spare battery	

- (ii) Array Tester:

Sl. No	Parameters	Specification
1	Display	LCD Digital Display with backlight
2	Functionality	All electrical tests required by IEC 62446-1:2016
3	Memory	Up to 200 records & USB downloadable to Computer
Accessories		
1	A set of two, 4mm fused leads for extra protection during installation tests.	
2	Leads which enable the Solar PV100 to connect directly to PV arrays which use MC3 connectors	
3	1 set of spare battery	

(iii) Insulation tester:

Sl. No	Parameters	Specification
1	Display	LCD Digital Display with backlight
2	Insulation Test Range	0.1 M Ω to 10 G Ω
3	Test Voltage	50 V, 100 V, 250 V, 500 V, 1000 V
4	Test Voltage accuracy	+20% on positive side only no negative variation is allowed
5	Insulation Test Current	1 mA nominal
6	Auto Discharge	Discharge time< 0.5 Second for C=1
7	Open Circuit test Voltage	>4 V, <8 V
8	AC/DC Voltage measurement	600 V (0.1 V Resolution)
8	Short Circuit Current	> 200 mA
Accessories		
1	Heavy duty Test Lead Set – 4 Nos.	
2	Carry Case with sufficient space for accommodating accessories.	

(iv) Multi-meters:

Sl. No	Parameters	Specification
1	Display	LCD Digital Display with backlight
2	AC/DC Current	500 μ A to 10 A (Accuracy 0.15 %)
	AC/DC Voltage	50 mV to 1000 V (Accuracy 0.025 %)
3	Resistance	50 Ω to 5000 Ω (Accuracy 0.05 %)
4	Capacitance	1 nF to 100 mF (Accuracy 1.0 %)
5	Frequency	99.999 Hz, 999.99 Hz, 9.9999 Hz, 99.999 kHz, 999.99 kHz (Accuracy 0.005 %)
Accessories		
1	Temperature Probe	
2	Silicon Test Lead	
3	Alligator Clip	
4	Carry Case with sufficient space for accommodating accessories.	

(v) Clamp meters:

Sl. No	Parameters	Specification
--------	------------	---------------

1	Display	LCD Digital Display with backlight
2	Jaw Opening	30 mm
3	Maximum Wire Size	600 MCM
3	Current Range	0 to 400 A
4	Accuracy Current	2.0 %
5	Voltage range	0 to 600 V
6	Voltage Accuracy	1.5 %
7	Resistance Range	0 to 4000 Ω
Accessories		
1	Test leads	
2	Electrical test leads	
3	Probe light & extender	
4	Carry Case with sufficient space for accommodating accessories.	

(vi) Transformer oil BDV kit:

Sl. No	Parameters	Specification
1	Display	LCD Digital Display with backlight
2	Input:	230 Volts, 50 Hz, Accuracy /- 10%
3	Output	0 - 100 KV
3	Capacity	1 kVA
4	Duty Cycle	Continuous
5	Compliance	IS-6792

(vii) Infra-red thermal imaging hand held Camera:

Sl. No	Parameters	Specification
1	Temperature measurement Range	Up to 650°C° Accuracy $\pm 2^{\circ}\text{C}^{\circ}$
2	On-screen emissivity Correction	Possible
3	On-screen reflective background temperature Correction	Enabled

3	On screen transmission Correction	Enabled
4	Detector Type	Focal Plane Array, uncooled micro-bolometer, 320 x 240 pixels or better
5	Total Pixels	> 75000
6	Infrared spectral Band	7.5 µm to 14µm (long wave)
7	Field of view	46° x 34°
8	Spatial Resolution (IFOV)	2.62 mRad
9	Wi-Fi Connectivity	Enabled
10	Data Storage	USB & memory card enabled

Note:

- a. All testing equipment shall possess valid calibration certificate issued from approved
 - b. NABL / accredited labs.
 - i. Instruments of superior rating is allowed after seeking consent of the DISCOM
 - ii. Maintenance, calibration, up keeping, repair & replacement of these tools will be in the scope of Contractor during 25 years of O&M.
 - c. It is Contractor's responsibility to arrange for tools, tackles, logistics, test kits,
 - d. manpower, experts etc. required for trouble free operation of Plant
- **General Guidelines**
 - i. Any civil, electrical, mechanical & plumbing work which is not mentioned or included in this tender document but necessary for the Plant shall be borne by the Contractor.
 - ii. Successful Bidder/ Contractor shall prepare all designs / drawings have based on the specifications given in the tender and in light of relevant BIS/IS/ equivalent standard.
 - iii. The Contractor shall provide type test reports and datasheet/ GTP for all equipment used for the project.
 - iv. The EESL/DISCOM reserves right to modify the design at any stage, to meet local site conditions / project requirements.

- v. All work shall be carried out in accordance with the latest edition of the Indian Electricity Act and rules formed there under and as amended from time to time.

13. Civil, Mechanical & Plumbing Works

This section of Technical Specifications describes detailed technical and functional requirements of all civil, Mechanical & Plumbing works included in the scope. All the Civil, Mechanical & Plumbing works must be done considering coastal environmental/climatic condition existing at site.

All design and construction of civil works shall conform to relevant Indian standards such as BIS, IRC, MORST, NBC etc. Design of steel structures shall conform to IS: 800, 802 or 802 as applicable with working stress method (WSD) of design. Design of concrete structure shall conform to IS: 456. For design of liquid retaining structure IS: 3374 shall be followed. Only in case of non-availability of Indian standard, equivalent American or British standard may be used for design with prior approval of the EESL/DISCOM and the contractor shall submit proper justification along with his request to the EESL/DISCOM for his review. All the design/ drawings shall be prepared/ approved by the chartered structural engineer. The design calculations for MMS, RCC structure, steel structure, foundation system, road work, drainage work, etc. shall be submitted for prior approval of EESL/DISCOM before commencement of construction.

The design calculations shall be supplemented with a neat sketch showing the structure geometry, node and member nos., Lengths of various typical members, support points and type of supports, types of materials with design properties considered, type of sections used in analysis & design. The report shall also include back-up calculations for various loads adopted in design, brief write-up on primary load cases and load combinations considered and conclusions on design results with supporting sketches for easy reference and clarity. Where a computer program (other than STAAD Pro) is used for analysis and design, the contractor shall also include a write-up on the computer program used along with validation check. Input and output file shall also be given in the design report to facilitate its review and approval by the EESL/DISCOM.

The construction methodology for MMS and its foundations, road works, drains and pile load test procedure shall also be submitted for prior approval of EESL/DISCOM before start of works. The construction shall be done only as per approved drawings

14. Other Investigations

- The contractor shall also obtain and study other input data at proposed project site for design of the project. This shall include data related to earthquake and wind, rainfall, maximum & minimum ambient temperature, humidity, high flood level (HFL) etc.
- Topographical survey, area grading, as applicable.
- The contractor shall carry out Shadow Analysis at proposed site and accordingly design strings and array layout with optimum use of space, material and man power. In case of large and steep variations in topography the study shall also include the effect of topographical variations on array layout. The contractor shall submit all the details/design to the EESL/DISCOM for approval.

- The contractor shall also identify potential quarry areas for coarse and fine aggregates to be used for concrete and shall carry out the concrete mix design for different grades of concrete to be used in the work. The concrete mix shall be designed for each source of cement and quarry as per provisions of relevant Indian Standard.

15. Foundations

- Contractor shall restore/ refurbish all foundations for buildings, equipment, Switch yard structures, Transformer, MMS & other structures as per relevant BIS standards and recommendations of Geotechnical investigation report as per requirement
- In case the contractor proposes to provide pile foundation for support of module mounting structure (MMS); the type, dia. and length of pile shall be as per recommendations of Geotechnical Investigation Report corresponding to prevalent soil characteristics at site,.
- In case collapse of foundation strata during drilling of the pile bore, removal steel liner shall be used to maintain design depth and diameter of the pile for proper concreting.
- Contractor must take into account that the site is prepared by filling of sand from coastal area.

16. Module Mounting Structure (MMS)

- The ground mounting structure repair must follow the existing land profile.
- The structure shall be repaired to allow easy replacement of any module and shall be in line with the site requirements.
- The MMS stub/ column, rafter, purlin, ties and bracing members shall conform to Indian standards as mentioned in the list of codes and 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.
- The minimum thickness (BMT) of various elements of MMS structure shall be as following: Stub/ column & Bracing/Purlin & other members. Final thickness of the members shall be arrived by structural analysis considering combination of all possible loads.
- The contractor can also propose new light gauge structural steel or structural aluminium sections other than specified above subject to approval of the EESL/DISCOM. In this case the contractor shall submit his proposal stating the technical advantages of the proposed sections for EESL/DISCOMs review along with supporting literature.
- MMS column post shall be supported with base plate secured to foundation using anchor bolts for easy maintenance/ repair/ replacement.
- The primary loads and load combinations for repair of MMS structure shall be as specified under “Design Load”.
- The support structure repair shall be as per relevant Indian standard(s) and shall be with working stress method considering appropriate factor of safety. No increase in permissible stress under wind/ Seismic load combination shall be permitted.

- The maximum permissible deflection/side sway limits for various elements of MMS under serviceability conditions shall be as following: Lateral deflection for Column/ stub- Span/ 240 & Vertical deflection for Rafter and Purlin – Span.
- In case of fundamental time period of MSS table structure more than 1 Sec, the structure design shall be checked against dynamic effects of wind as per provisions of IS – 875 (Part-3).
- MMS shall support SPV modules at a given orientation & tilt, absorb and transfer the mechanical loads to the ground properly.
- Welding of structure at site shall not be allowed and only bolted connections shall be used.
- The MMS structure shall be hot dip galvanized with minimum thickness of coating not less than 80 microns on each side. Galvanization shall conform to IS- 2629, 4759 & 4736 as applicable, considering coastal environmental condition. It is to ensure that before application of this coating, the steel surface shall be thoroughly cleaned of any paint, grease, rust, scale, acid or alkali or such foreign material as are likely to interfere with the coating process. The Contractor should ensure that inner side should also be coated. The galvanization shall be done after fabrication of members to ensure galvanization of all cut surfaces. In case the proposed section is made up of Aluminium, anodized coating shall be Gr AC25 and shall conform to IS: 1868. 10.13 The array structure shall be so designed that it will occupy minimum space without sacrificing the output from SPV panels at the same time.
- Two numbers of anti-theft fasteners of stainless steel on two diagonally opposite corners for each module shall be provided. All the fasteners and washers (packing & spring) for Module Mounting Structure and Module shall be adequately protected from atmosphere and weather prevailing in the area. Fasteners and washers to be used for erection of mounting structures and those for fixing Module over MMS shall be of stainless steel grade SS 316 equivalent and must sustain the adverse climatic conditions to ensure the life of the structure for atleast 25 years.
- Modules shall be clamped & bolted with the structure properly. The material of clamps shall be Anodized Al / Stainless Steel. Clamp/bolt shall use EPDM rubber and must be designed in such a way so as not to cast any shadow on the active part of a module. In case bolts are used, Spring Washers shall be used bolt head end and EPDM rubber shall be used in between Module & purlin.
- The MMS foundation shall be designed as per the loads specified under clause “Design Loads”.The anti-theft bolts, nuts etc shall be provided by the Contractor.
- The array structure shall be grounded properly using maintenance free earthing kit
- The Contractor shall specify installation details of the PV modules and the support structures with appropriate diagram and drawings.
- The Contractor should design the structure height considering highest flood level at the site and the finished grade level.
- For multiple module mounting structures located in a single row, the alignment of all modules shall be within an error limit of maximum 10mm.
- The Successful Bidder/ Contractor shall submit the detailed foundation & structural design basis and the list of reference standards, in this Bid, duly certified by a Chartered Structural Engineer having adequate successful experience in similar works.

- The contractor shall submit the detailed design calculations and drawings for MMS structure, bill of materials and their specifications/ standards to the EESL/DISCOM for approval within 30 days from issue of LOA/ NTP before start for fabrication work.
- Contractor must submit the complete quality documents i.e. test certificates for all tests conducted starting from raw material stage, in process, final testing w.r.t structure.

17. Concrete Works

- All RCC works shall be with design mix as per IS 456 and the materials used viz. Cement, coarse & fine aggregate, Reinforcement steel etc. shall conform to relevant BIS standards.
- The minimum grade of RCC shall be M25 except for underground (UG) water tank where the grade of concrete shall be min. M30. PCC shall be of min. grade M10 (equivalent nominal Mix – 1:3:6) unless otherwise specified.
- Reinforcement steel shall be of high strength TMT bars of grade Fe500 D conforming to IS: 1786. Ductile detailing in accordance with IS: 13920 shall be adopted for superstructure and sub-structure of all RCC buildings and structures.
- For grouting works anti shrink ready mix grout of approved make or cement mortar (CM) grout with non-shrink additive shall be used. The grout shall be high strength grout having min. characteristic strength of 30 N/ mm² at 28 days.

18. Miscellaneous Steel Works

- Unless otherwise specified all structural steel work shall be designed as per provisions of IS: 800 with working stress method of design (WSD).
- Structural steel hot rolled sections, flats and plates shall conform IS: 2062.
- Structural Pipes shall be medium (M)/high (H) grade conforming to IS: 1161.
- Chequered plate shall conform to IS: 3502 and Hollow steel sections for structural purposes shall conform to IS: 4923.

19. Pipe and Cable Trenches

- All cable trenches shall be of RCC. The min. wall and base slab thickness shall be 100mm for depth ≤ 750mm and 150mm for depths > 750mm. The trench shall be designed for lateral load due to external soil fill, ground water table at FGL and 50 KN/ Sqm surcharge. External trenches shall be kept min. 100mm above FGL to avoid entry of rain water.
- Internal cable trench shall be provided with chequered plate (min. 8mm thick) covers, the trench cover shall be provided with suitable lifting hooks. Both top edges of the cable trench shall be provided with min. 50x50x6 mm edge protection angle.

20. Transformer Yard Civil Works

- Transformer and equipment foundations shall be founded on piles/isolated spread footings depending on the final geotechnical investigation report.

- 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 stone gravel of 40 mm size uniformly graded. The retention capacity of the transformer pit shall be min. 1/3 volume of the transformer oil which is filled with gravel with 300mm free space above gravel fill.
- The individual transformer oil pit shall be connected to an oil collection pit which shall be sized to accommodate full oil volume of the transformer connected to it, without backflow. The oil collection pit shall be connected to oily water drainage system. Dimensions of the discharge pipe shall consider rainfall intensity also. The water shall be discharged into the nearest drain by gravity flow or pumping.
- Both, the transformer pit and the oil collection pit shall be of RCC. The oil collection pit shall be provided with RCC cover.
- The area around the transformer and equipment shall be covered with gravel. The transformer yard fencing work shall conform to CEIG requirements.
- Transformer track rails shall conform to IS: 3443. The requirement of fire barrier wall between transformers shall be as per Electricity Rules and IS: 1646 recommendations. Minimum wall thickness shall be 230mm for RCC wall and 300mm for masonry wall.

21. Water Supply & Cleaning of Modules

- Contractor has to plan and install the effective module cleaning system as per the prevailing conditions at Site. The system may include the storage water tanks, pumps, laying of GI/HDPE/UPVC pipes, flexible pipes, taps/ valves, pressure gauges etc. as per the planning by the Contractor. Contractor has to submit the drawing/ plan for the proposed module cleaning system.
- All the pipes thus laid must be buried in ground at least 150mm below FGL. Road crossings and drain crossings, the pipes must be passed through GI/ Hume pipes as applicable.
- In order to promote judicious and optimal utilization of water for cleaning of modules, bidder's are recommended to adopt robotic cleaning, foam cleaning (dry cleaning) etc. The use of robotic cleaning and anti-soiling coating technology on solar PV modules is among other emerging technologies e.g. hydrophobic, robotic cleaning etc.

22. Inspection & Testing Inspection:

- EESL/DISCOM shall have free access to Contractor's manufacturer's works to inspect, expedite and witness shop floor tests. Any materials or work found to be defective or which does not meet the requirements of the specification will be rejected and shall be replaced at Contractor's cost. EESL/DISCOM reserves the right to carry out stage wise inspection of fabrication and components. The Contractor shall furnish a detailed quality assurance plan (QAP) for review by the EESL/DISCOM.
- The test & inspection shall be carried out at manufacturer's work and at the site with the Contractor's obligation. The test and Inspection shall be done in accordance with the relevant standards and the Manufacturer's standard before the delivery to site as

well as after the erection and commission at site. The Contractor shall give the list of tests that they will carry out at site to show the performance of Plant.

- A detailed 'QAP' for Manufacturing and Inspection shall be submitted by the Contractor for EESL/DISCOM's approval. The data of each test and inspection shall be recorded and submitted as soon as the test/ trials are conducted and will also be a part of final documentation.
- The shop test shall be carried out to prove the performance parameters of the offered model. The testing shall be done in the presence of the representatives of the department.
- The EESL/DISCOM will nominate its representatives for inspection of stage manufacturing and testing at works & 7 days training at premises of SPV module and PCU manufacturer.

23. Load Trials & Reliability test at Site

- Performance Guarantee Test at Site for Grid Connect Solar Power Plant, HT Panel etc.
- These tests will be conducted at site as per site conditions at available load and after performing all restoration and pre-commissioning check and trials and after readiness of the entire Solar Power Plant system which are required to carry out the load trials
- All the tests which are mentioned in the load test of Solar Power Plant will be carried out in presence of EESL/DISCOMs' Representative at Site under site conditions and the parameters checked in accordance with the data sheet and guaranteed parameters given by the Contractor.
- All the equipment supplied by the vendor will be tested as per relevant standard/ Quality assurance plan at site conditions and the performance monitored.

24. Quality Considerations

- Contractor will submit and get finalized detailed comprehensive Standard Field Quality Plan (SFQP) within 7 days from date of issue of the LOA/NTP/PO for bought out items. The Standard Field Quality Plan shall equipment till final inspection and testing to be followed for bought out items by Contractor. Accordingly, the Manufacturing Quality Plan shall be submitted broadly under following sub-heads:-
 - Raw material/Bought Out items and Components.
 - In process inspection and test/checks to establish successful completion/ accomplishment of the process.
 - Final tests/checks in accordance with relevant national/ international standards/specification.
- The quantum of check for each and every inspection/test items shall be based on an established sampling method and the quantum of check indicated in the SFQP should be designed adequate quality protection.
- In case reference documents/acceptance norms are indicated as per Plant standards then the same shall be duly substantiated/properly explained by well-established and proven engineering practices. All submissions will be in English language only.
- Contractor will to allow EESL/DISCOM to carry out Quality/Audit/Quality surveillance on Contractor's and our sub-vendor's work with reference to

contractual obligations to ensure that the quality management practices/norms as detailed out in the Quality Manual are adhered to. To facilitate this activity, you shall keep EESL/DISCOM informed all progress of work in this contract on monthly basis.

- Contractor will associate/fully witness in each inspection being carried out at their/their sub-vendor's works by our authorized inspection engineer(s).
- EESL/DISCOM shall also carry out quality audit and quality surveillance of your systems, procedures and quality control activities. However, this shall not relive you of any of your contractual responsibilities under the contract.

25. Performance and Functional Warranty / Guarantees

- During the period of Warranty / Guarantee the Contractor shall remain liable to replace any defective parts, that becomes defective in the Plant, of its own manufacture or that of its sub-Contractors, under the conditions provided for by the Contract under and arising solely from faulty design, materials or workmanship, provided such defective parts are not repairable at Site to the extent that it operates at its full efficiency, reliability capacity.
- At the end of guarantee period, the Contractor's liability shall cease. In respect of goods not covered by the first paragraph of this clause, the EESL/DISCOM shall be entitled to the benefit of such guarantee given to the Contractor by the original Contractor or manufacturer of such goods.
- During the first year of assured performance demonstration and Operation & Maintenance thereafter, the Contractor shall be responsible for any defects in the work due to faulty workmanship or due to use of sub-standard materials in the work. Any defects in the work during the guarantee period shall therefore, be rectified by the Contractor without any extra cost to the EESL/DISCOM within a reasonable time as may be considered from the date of receipt of such intimation from the EESL/DISCOM failing which the EESL/DISCOM shall take up rectification work at the risk and cost of the Contractor.

Technical Specification of Solar PV Modules supplied by EESL to the bidder

All the components shall be in accordance with technical specifications given in relevant IS/IEC standards. Use of PV modules with higher power output is preferred.

- a. PV module (s) containing crystalline silicon should be used.
- b. Each of the Solar PV module shall be rated for a minimum of 310 Watts peak with 72 cells. The Solar PV modules shall have a positive power tolerance.
- c. The efficiency of the PV modules should be minimum 16% and fill factor should be more than 70%.
- d. Product Warranty: 5 years from the date of supply against manufacturing defects.
- e. Power output warranty: 25 years
- f. The PV modules shall be supplied with the suitable Aluminium frame. The terminal box on the module should have a provision for "Opening" for replacing the cable, if required.
- g. The PV modules used in the grid connected solar power projects will qualify to the latest edition of the following IEC qualification test or standards.

Sl No.	Code/Standard	Description
1	IEC 61215	Crystalline silicon terrestrial photovoltaic (PV) modules – Design qualification and type approval
2	IEC 61345	UV test for Photovoltaic (PV) modules
3	IEC 61701	Salt mist corrosion testing of photovoltaic (PV) modules
4	IEC 61853- Part 1/ IS 16170	Part 1 for Photovoltaic (PV) module performance testing and energy rating. Irradiance and temperature performance measurements, and power rating
5	IEC 62716	Photovoltaic (PV) Modules – Ammonia (NH3) Corrosion Testing
6	IEC 61730 Photovoltaic (PV) Module Safety Qualification –	Modules must qualify to Part 1: Requirements for Construction, Part 2: Requirements for Testing
7	IEC 62804	test methods for detection of PID
8	IEC 60068	Environmental testing

Identification and Traceability

Each PV module used in any solar power Project must use a RF identification tag. The following information must be mentioned in the RFID used on each module (This can be inside or outside

NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002	SECTION-4 (Part-C (TS))	Page 77 of 98
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the laminate, but must be able to withstand harsh environmental conditions)

- i. Name of the manufacturer of PV Module
- ii. Name of the Manufacturer of Solar cells
- iii. Month and year of the manufacture (separately for solar cells and module)
- iv. Country of origin (separately for solar cells and module)
- v. I-V curve for the module at Standard Test Condition (1000 W/m², AM 1.5, 250C)
- vi. Wattage, Im, Vm and FF for the module
- vii. Unique Serial No. and Model No. of the module
- viii. Date and year of obtaining IEC PV module qualification certificate
- ix. Name of the test lab issuing IEC certificate
- x. Other relevant information on traceability of solar cells and module as per ISO-9000

The Modules are rated for 90% power output at the end of 12 years and 80% at the end of 25 years. The modules are also warranted for 5 years against manufacturing defects. The contractor shall be responsible for carrying out the inspection, tests at the time of receipt of solar PV modules at site(s)/warehouse/facility of the contractor. The contractor may also carryout Pre dispatch inspection of the solar PV modules at factory, if required. During the O&M period of the project, in case the contractor finds that the performance of the module(s) is not as per the power output warranty, then EESL/appointed agency will carry out the testing in any of the NABL accredited laboratories to evaluate the performance of the module(s).

In case the performance of the Solar PV module(s), after being tested in NABL accredited laboratory (ies), is as per the power output warranty, then the contractor shall reimburse all the expenses incurred by EESL/appointed agency towards testing the module(s). In this case, contractor shall be liable to pay the penalty for the period during which the modules are being tested (date of removal of the modules from the solar power project and replacement of the modules in the solar power project) and also for lower energy generation as per the terms and conditions of penalty as per Clause 12 "Penalty & Serviceability Level Agreement" of section 4 of RfP. In case the performance of the solar PV modules is not satisfactory, then EESL will be responsible for replacement of the solar PV modules.

Tentative Zone/Districts in Maharashtra

S No	Zone Number	District
1	Zone 1	Nashik
2		Nashik
3		Nashik
4		Baramati
5		Baramati
6		Baramati
7		Baramati
8		Baramati
9		Ahmednagar
10		Ahmednagar
11	Zone 2	Solapur
12		Solapur
13		Solapur
14		Solapur
15		Sangli
16		Sangli
17		Pune
18		Ratnagiri
19	Zone 3	Latur
20		Latur
21		Latur
22		Latur
23		Latur
24		Osmanabad
25		Osmanabad
26		Osmanabad
27		Latur
28	Zone 4	Aurangabad
29		Hingoli
30		Jalna
31		Hingoli
32		Hingoli
33	Zone 5	Parbhani
34		Wardha
35		Wardha
36		Wardha
37		Washim
38		Wardha
39		Amravati
40		Yavatmal

41	Wardha
42	Amravati
43	Washim
44	Wardha
45	Washim
46	Yavatmal
47	Amravati
48	Amravati

Process Flow Chart for Implementation of Restoration of Small solar power plants

S No	Activity	Milestone date
1	Submission of Site restoration plan of all sites zone wise	Site (s) intimation + 7 days
2	Job allotment to technical team	Site (s) intimation + 11 days
3	Signing of restoration plan, to start site work of restoration and refurbishment	Site (s) intimation + 12 days
4	Submission of revised as built drawing	Date of Signing of restoration pl + 70 days

Enclosed: Format for MoM, Proforma for site survey

Bill of Quantity of Part B

Site Name :

Capacity of system installed (kWp)

S.No	Component	Specification	Quantity
1	Weather Monitoring Station with Data logger, Sensors and PC		
2	Street Lights: Make & Model Serial Number		
3	CCTV Cameras: Make & Model Serial Number with PC and UPS		
4	Water cleaning system with water pipeline if required borewell and pump		
5	Fire fighting systems/ First Aid kits/ PPE Kit		
6	Minimum Furniture for Operator to conduct operational activities (8-10 Hrs)		

Project Completion and Commissioning Report Format

S.No	Component	Observation
1	Site/ Location with Complete Address	
2	Site Capacity :-Nodal Agency/Channel partner (Name) and Complete Address	
3	Capacity of system Installed (kWp)	
4	Longitude/ Latitude	
5	Specification of the Modules: Module Wattage	
	Number of Modules	
6	Inverter: Make & Model	
	Serial Number	
7	Transformer: Make & Model	
	Serial Number	
8	VCB: Make & Model	
	Serial Number	
9	Street Lights: Make & Model	
	Serial Number	
10	CCTV Cameras: Make & Model	
	Serial Number	
11	Lightning Arrestor: Make & Model	
	Serial Number	
12	Number of Earth Pits with resistance measurement sheet	
13	AJB/SMB: Make & Model	
	Serial Number	
14	Weather Monitoring Station/ Data logger/ Sensors: Make & Model	
	Serial Number	
15	As-built layout drawing/ SLD	
16	Fire fighting systems/ First Aid kits/ PPE Kit/ Emergency exit plan	
17	List of Spare Parts	

**UNDERTAKING REGARDING WILLINGNESS TO CARRY OUT SITE DEVELOPMENT
ACTIVITIES**

To,

Energy Efficiency Services Limited.

(A JV of PSUs of Ministry of Power, Govt. of India)

5th & 6th Floor, CORE -III, Scope Complex,

Lodhi Road, New Delhi -110003.

Dear Sirs,

We hereby confirm and declare that we, M/s -----, is willing to carry out site development activities which, inter-alia, includes the following as per MSEDCL approved Schedule of Rates (SOR) at awarded sites (s):

1. Civil Works including land development, fencing works, drilling borewells/water supply arrangements and others.
2. Power Evacuation arrangement which includes 11 kV or 22 kV feeder bay with Gantry Structure , CT-PT, ABT meters etc.

For (Name of Bidder with seal)

Authorized Signatory

Address of Bidder

Date:

This will be exercised if MSEDCL wishes to undertake the development activities from the successful bidder. The successful bidder shall be paid by MSEDCL/EESL as per the SOR. EESL will not be a part to certify this work.

Tentative Format for Restoration Execution Plan

Sr. No.	Description	Supplied items/material	UoM	Total Quantity	Material Received at site	Material receiving date	Material refitting and restoration	Testing/Trial ready for recommissioning	EESL Remarks
A	Solar Modules								
1	Replacement of Defective Solar Models								First time will be provided by EESL
B	String Monitoring Box (SMB)								
1	String Monitoring Box (SMB)								
C	Inverter								First time Preventive maintenance will be done by EESL
1									
2									
D	Transformer								
1	Auxiliary Transformer								
2	Inverter transformer								
3	Transformer oil								
4	Oil filtration								
E	HV Switchgear								
1	HV switchgear panel								
2	Protection relay testing &								

	calibration								
F	Cable and connectors								
1	Model connectors								
2	String connectors								
3	DC table cable dressing of all plant								
4	Solar panel DC cable								
5	DC power cable SMB to Inverter								
6	Power cable Meggering								
G	Earth Pit								
1	Earth pit maintenance and testing								
H	SCADA								
1	SCADA								
I	CCTV and lighting								
1	Camera								
2	Camera								
3	Street lights								
4	Street lights								
J	Water - Borewell								
1	Borewell								
2	Water line rectification								
3	Water line flexible pipe								

Appendix -8**Payment Clearance Checklist – Zone Wise (Part A and Part B)**

S.No	Description	Availability (Yes/No)
1	Site-wise Insurance (EESL will be coinsured)	
2	Project Completion and Commissioning Report (As per Appendix-5)*	
3	Operational Acceptance Report (As per Appendix-10)*	
4	BOQ of Part B (As per Appendix-4)*	
5	CPG, Contract Agreement,	
6	Material Receipt Certificate*	

* Dually verified and signed by Site In charge.

Appendix -9O&M Payment Clearance Checklist – Zone Wise (Part C)

S.No	Description	Availability (Yes/No)
------	-------------	--------------------------

- | | | |
|---|-----------------------------------------------|--|
| 1 | O&M Service Report * | |
| 2 | JMR Submission Report* | |
| 3 | Site-wise Insurance (EESL will be coinsured) | |

* Dually verified and signed by Site In charge.

Appendix-10Operational Acceptance Format – Zone Wise

S.No	Zone Number	Minimum PR	Actual PR
1	Site 1-	$\geq 70\%$	Actual PR*
2	Site 2-	$\geq 70\%$	
3	Site 3-	$\geq 70\%$	
4	Site 4-	$\geq 70\%$	

* Dually verified and signed by Site In charge. If PR is less than 70% then the operational Acceptance will be considered unsuccessful and further 15 days will be provided to upstream the PR $\geq 70\%$

Format for MoM during Site Survey

**Minutes of Meeting held between DISCOM, M/s EESL and Contractor at _____
district for Small Solar Plant at _____substation**

Date: DD.MM.YYYY

A joint survey was conducted by EESL and/or DISCOM and Contractor for finalization of available area for small solar power plant. Drawings of solar array layout & structural drawings and following are the observations as tabulated below:

Sl No.	Description	Scope	Remarks
1	Tree cutting within the proposed/ marked area for solar installation	DISCOM	
2	Relocation of /Removal of existing HT lines from proposed/ marked area for solar installation	DISCOM	
3	Provision of spare feeder/ bay extension for the solar power evacuation	DISCOM	
4	Provision for HT cable (with trenching) from solar plant HT panel to power evacuation point	DISCOM	
5	Fencing and approach road to solar plant	DISCOM	
6	Provision of solar material storage area		
7	Ground levelling and clearance	DISCOM	
8	DISCOM to confirm site handover date after completion of all above work	DISCOM	
9	Removal of all unused items in existing old control room and Availability of same for use of solar plant	DISCOM	
10	Submission of structure layout, SLD, etc. for approval to EESL/DISCOM	Site Survey +17 days	

**Contractor may add additional rows with time lines as per the scope of work by respective agencies*

Name	Designation	Signature

Proforma for Site Survey

Name of the Substation	
Rating of the Substation	
Date of Survey	

Table of Contents

<u>Proforma for Site Survey.....</u>	<u>92</u>
<u>1. General Data.....</u>	<u>94</u>
<u>2. Site Data.....</u>	<u>94</u>
<u>3. Climate Data.....</u>	<u>94</u>
<u>4. Land Data (for Ground installations)</u>	<u>94</u>
<u>5. Electrical data.....</u>	<u>95</u>
<u>6. Control room.....</u>	<u>96</u>
<u>7. Power House data</u>	<u>96</u>
<u>8. Distances</u>	<u>96</u>
<u>Control Room/</u>	<u>96</u>
<u>9. Drawings.....</u>	<u>97</u>
<u>Additional Points</u>	<u>97</u>

1. General Data

Customer Name	
Survey Conducted By	
Contact/Nodal Official	
Designation	
E-Mail	
Telephone/Mobile	

2. Site Data

City	<input type="text"/>		
Address	<input type="text"/>		
Latitude and Longitude	<input type="text"/>		
Nearest Railway Station	<input type="text"/>		
Nearest Airport	<input type="text"/>		
Location Type	<input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Defence <input type="checkbox"/> Government <input type="checkbox"/> Under-construction		
Type of Area available	<input type="checkbox"/> Roof <input checked="" type="checkbox"/> Ground <input type="checkbox"/> Roof & Ground		
Power Plant Type	<input type="checkbox"/> Off-grid <input checked="" type="checkbox"/> Grid-tied <input type="checkbox"/> Grid-interactive (Hybrid)		
Type of Power Available	<input checked="" type="checkbox"/> Grid (Utility) <input type="checkbox"/> Diesel Generator <input type="checkbox"/> Wind		
Inverter Room Availability	<input type="checkbox"/> Available <input type="checkbox"/> Not available		

3. Climate Data

Parameters	Summer		Winter	
	Max	Min	Max	Min
Temperature				
Wind velocity				
Average rain fall per annum				

4. Land Data (for Ground installations)

Land area (sq. m) for setting up the solar plant	<input type="text"/>
Land Type	<input type="checkbox"/> Flat <input type="checkbox"/> Slope

Slope of Land	East / West / North / South facing
Approach road to site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type of Soil	
Is available area shadow free?	<input type="checkbox"/> Yes <input type="checkbox"/> Partial Any obstructions nearby _____
Water availability	
Bore wells	Nos
Water supply	
Security at the plant	
Clearance of Land	
Is fencing available for complete project land	
Type of fencing	
Availability of periphery road	

5. Electrical data

Grid (Utility)	Voltage (kV) :	<input type="text"/>			
Frequency [Hz]:					
Availability of bay (Bay extension)					
Energy Details	Daily	Monthly	Yearly		
Energy Consumed (kWh)	<input type="text"/>	<input type="text"/>	<input type="text"/>		
Min. Load	_____ kW	_____ Amps			
Max. Load	_____ kW	_____ Amps			
Average Load (kW)	_____ kW	_____ Amps			
Minimum load During holidays or Weekends (kW)					
Tariff Paid (Rs.)					

(If any)			
Sanctioned Load (kW)	<input type="text"/>		
Duration of Power cuts at 11 kV (Avg) (interruptions only)	_____ Hours/month; _____ Hours/Year		
Incomer duration of Power cuts (interruptions only)	_____ Hours/Year		
Peak hour Duration		Peak hour time range	
No of Transformers			
Rating and Capacity of each Transformer			
Total Capacity of Transformers	MVA		

6. Control room

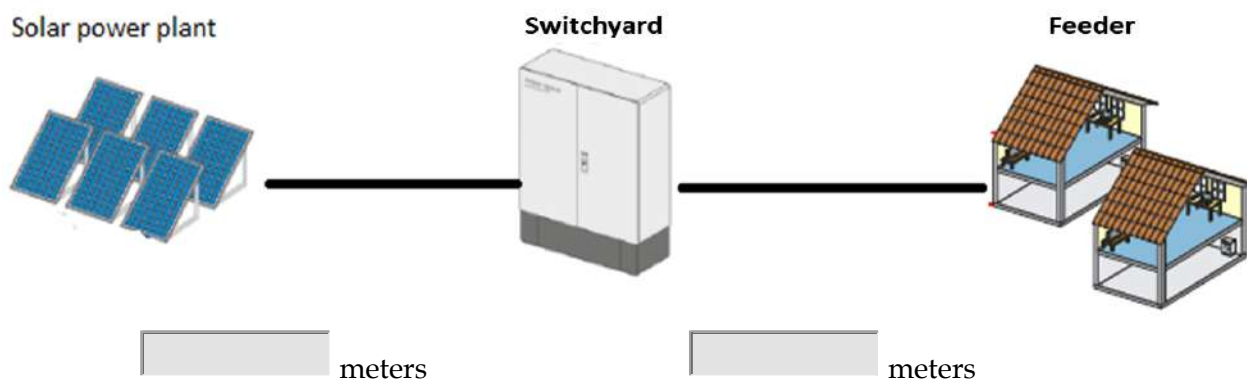
Size of the Control room	
Space availability for installation of new systems	
RMS / SLDC	

7. Power House data

LT panel location	<input type="text"/>
Space availability in existing LT room	<input type="checkbox"/> Yes <input type="checkbox"/> No

8. Distances

Control Room/



9. Observations

Sl. No.	Particulars	Remarks
1	No of trees (and type, if any) in the proposed solar plant area	
2	No of LT and HT lines in the in the proposed solar plant area	
3	Availability of water (municipal, bore well etc)	
4	Any other land developmental activity required	

10. Drawings

Sl. No.	Drawing	Attached
1	Master plant layout	
2	Single Line Diagram (SLD)	
3	Substation layout	

Dated:

Place:

Signature of EESL Representative
Representative

Signature of DISCOM

Additional Points

1. Attach photographs of land or installation area facing east side
2. Give the details of obstruction for solar power plant
3. Provide photographs of Distribution board, in which power evacuation need to be done.

Part - D of Section-4
SPECIAL CONDITIONS OF CONTRACT (SCC)

SPECIAL CONDITIONS OF CONTRACT (SCC)

The following bid specific data shall amend and/or supplement the provisions in the General Conditions of Contract (GCC)

Sl. No.	GCC Clause Ref. No.	Amendment/Supplement to GCC
1.	GCC 1.1	<p>Supplementing Sub-Clause GCC 1.1</p> <p>The Employer is:</p> <p>M/s. Energy Efficiency Services Limited Core-5, 4th Floor, SCOPE Complex, Lodhi Road, New Delhi-110003 Kind Attn.: DGM (Contracts)/ Sr. Manager (Contracts) Email: Primary - prabodh.singh@eesl.co.in Secondary - umohan@eesl.co.in</p>
2.	GCC 3.6	<p>Replace GCC 3.6.1 with the following:</p> <p>The mode of contracting with the Successful Bidder will be as per stipulation briefly indicated below:</p> <p>Single Contract shall be placed for following Price Components:</p> <ul style="list-style-type: none">a) For supply of Goods.b) For providing all Related Services i.e. inland transportation for delivery at site, inland transit insurance, loading, unloading, storage, handling at site, insurance covers other than inland transit insurance, erection, testing & commissioning, in respect of all the Goods suppliedc) Any other Services as specified in the Contract Documents. <p>Set -Off Clause:</p> <p>Contractor irrevocably and unequivocally agrees that breach in this Contract shall constitute (deemed to be) a breach in other contracts entered by the Contractor with EESL (regardless of the scope of work) which will confer a right on EESL, among other rights available under the Contract or at law to terminate the other</p>

Sl. No.	GCC Clause Ref. No.	Amendment/Supplement to GCC
		contracts at the risk and the cost of the contractor /Supplierfor the Project, for which awards have been made. For the avoidance of doubt, default in this Contact by the Contractor shall be a deemed default in other contract (awarded under separate RFPs) and EESL reserve the right to effectuate or avail all the remedies available under that contract.
3.	GCC 3.10	Replace GCC 3.10 with the following: For the subject tender, Joint Venture or Consortium is not applicable.
4.	GCC 6	Supplement GCC 6.2 with the following: Arbitration shall be carried out as per Arbitration Act 1996 and its subsequent amendment. The Contract shall be governed by and interpreted in accordance with the laws in force in India. The courts of DELHI shall have exclusive jurisdiction in all matters arising under the contract..
5.	GCC 8.2	<p>Supplement GCC clause 8.2 with the following:</p> <p><u>Time for Completion:</u></p> <p>The project would be developed in two parts.</p> <ol style="list-style-type: none"> Part I: Site Surveys, submission of list of required items Minutes of Meet, new procured items quality and warranty certificate documents. Refurbishment, restoration, recommissioning and startup of the Solar power generation plant(s). Part II: O&M of Solar power generation plant for the remaining period of the operation from 10 years after date of commissioning. <p><u>Part I:</u></p> <p>The Contractor shall submit the plan for carrying out site restoration/refurbishment and startup work within 04 days from the date of issuance of LoA. The contractor shall complete the site surveys of all the allotted sites within one week. from the date of intimation of site details to the successful bidder. Further the sites would be handed over to successful bidder in a zone manner. The contractor shall submit the final, revised Electrical Single Line Diagram (SLD), site survey reports required items and project document as per the timelines shown below:</p>

Sl. No.	GCC Clause Ref. No.	Amendment/Supplement to GCC																					
		<p>*Contractor to strictly adhere to the timelines mentioned above. In case of any failure to meet the above timelines, a suitable action shall be taken against the contractor for any delay in completion of the restoration, including the right to cancel or termination of contract at EESL's discretion.</p> <p><u>Part II:</u></p> <p>The date of handover of Solar site (s) to the contractor for restoration of Solar Power Generating System (SPGS) shall be treated as Zero date. The contractor shall submit the detailed restoration execution plan within one week (07 days) from the date of issuance of NTP. Also, execution plan as per Appendix- 7 is to be submitted by successful bidder on weekly basis.</p> <p>The timelines for Completion of the restoration, refurbishment start up Works is 90 days from the Zero date.</p> <p style="text-align: center;">Timelines for Scope of work in Days</p> <table border="1"> <thead> <tr> <th>S. No.</th><th>Stage</th><th>Reference</th></tr> </thead> <tbody> <tr> <td>1</td><td>Date of Site handover and restoration</td><td>Zero Date</td></tr> <tr> <td>2</td><td>The contractor shall submit the detailed execution plan (MS Projects/PERT/GANTT chart etc.)</td><td>D+7 days</td></tr> <tr> <td>3</td><td>Manpower allotment at sites</td><td>D+11days</td></tr> <tr> <td>4</td><td>Supply of major components/equipment like spares parts for SMB, Cables, connectors, vacuum circuit breaker, transformer oil, gaskets, BoP component spares, consumables etc</td><td>D+41days</td></tr> <tr> <td>5</td><td>Replacement of defective components, Testing and recommissioning of all major equipment including, HV switchgear, Inverters / PCU, Transformers etc.</td><td>D+55days</td></tr> <tr> <td>6</td><td>Recommissioning and startup of Plant (SPGS) along with Completion of Facilities in line with Technical/Functional/Performance Requirement stated under this Tender Document.</td><td>D+90 days</td></tr> </tbody> </table>	S. No.	Stage	Reference	1	Date of Site handover and restoration	Zero Date	2	The contractor shall submit the detailed execution plan (MS Projects/PERT/GANTT chart etc.)	D+7 days	3	Manpower allotment at sites	D+11days	4	Supply of major components/equipment like spares parts for SMB, Cables, connectors, vacuum circuit breaker, transformer oil, gaskets, BoP component spares, consumables etc	D+41days	5	Replacement of defective components, Testing and recommissioning of all major equipment including, HV switchgear, Inverters / PCU, Transformers etc.	D+55days	6	Recommissioning and startup of Plant (SPGS) along with Completion of Facilities in line with Technical/Functional/Performance Requirement stated under this Tender Document.	D+90 days
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Sl. No.	GCC Clause Ref. No.	Amendment/Supplement to GCC
		Plant Performance will be considered as per Clause 2.5 Operational Acceptance and same shall be done only after recommissioning of Plant & Completion of all associated infrastructure as mentioned in Annexure II.
6.	GCC 13.3.1	<p>Replace GCC 13.3.1 with the following: Contract Performance Guarantee (CPG) / Contract Performance Security (CPS)</p> <p>Within twenty-eight (28) days of the receipt of the Notification of Award (NOA) of Contract from EESL, the bidder(s) shall furnish Security Deposit (SD)/Contract Performance Guarantee (CPG) in the form of a DD/Bank Guarantee (BG)/Insurance Surety Bond/e-BG of value equaling 5% of the total Contract value. The SD/CPG Bank Guarantee must be valid to cover the period of Supply of required Items (Period) + Restoration & refurbishment Period (90 days) + warranty/Annual Maintenance duration (10 Years) + Three (3) months' claim period..</p> <p>Any delay in submission of SD/CPG or SFMS confirmation whichever is later shall be deemed as accruing of financial benefit to the bidder(s) and EESL may take necessary interest penalty recovery action (interest @ State Bank of India's MCLR + 2 %) from the payments due to the bidder(s) for the period of delay. However, this provision does not bind EESL in any way from proceeding against the bidder(s) (including forfeiture of EMD, cancellation of the LOA/NOA, etc.) for non-compliance towards non-submission of the SD/CPG.</p> <p>In case where CPG has been called for more then 3 years then vendor can submit CPG in two parts, first for 3 Years + claim period and balance PBG will be submitted to contracts department prior to six months of expiry of previous CPG. In this regard further an undertaking has to be submitted by vendor that if vendor fails to provide second BG then EESL can impose the penalty and forfeit the Bank Guarantee. In case of submission of new CPG, following para may be added in the new CPG to maintain continuity: <i>"We undertake to pay you, upon your first written demand (at any time during entire duration of the contract including Contract period prior to issuance of this Bank Guarantee) under the Contract, without cavil or argument, any sum or sums within the limits as mentioned aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein."</i></p>

Sl. No.	GCC Clause Ref. No.	Amendment/Supplement to GCC
		<p>Apart from above, it is also to be ensured that vendor will submit an undertaking on its letter head having the following clause:</p> <p><i>“(Name of the supplier) shall be liable to extend this Bank Guarantee from time to time for such period as directed by EESL. However, if the (Name of the supplier) is unable to extend the Bank Guarantee as directed by EESL due to the reasons not attributable to (Name of the supplier) or Bank denies for such extension (the same is required to be established by (Name of the supplier) through documentary evidence), then (Name of the supplier) shall extend this Bank Guarantee from some other Bank as per the relevant provisions of the Contract before expiry of original Bank Guarantee. (Name of the supplier) unequivocally agrees that provision for extension of Bank Guarantee is to protect the genuine commercial interest of EESL and is not an onerous act on (Name of the supplier).”</i></p> <p>The BG shall be from any Nationalized Bank/other scheduled Private banks/International banks, to be from among the list of banks given at Attachment-15 of Section-6 of RfP. In case of international bidder(s), the CPG BG could be from any such international bank having a branch in India or a Nationalized Indian bank having a branch in the country of origin of the international bidder(s) mentioned in Attachment-15 of Section-6 of RfP. The International Bidders are also required to enclose with their CPG BG a letter of BG confirmation from a corresponding Indian bank. EESL shall at its discretion have recourse to the said Bank Guarantee for the recovery of any or all amount due from the bidder(s) in connection with the contract including of replacement warranty obligations.</p> <p>Failure of the bidder(s) to comply with the requirements of IFB/Tender/NIT/LOA/NOA/Contract Agreement shall constitute enough grounds for the annulment of the award and forfeiture of the SD/CPG.</p> <p>BG will be released on Closure of Contract.</p> <p>This Bank Guarantee shall be effective only when BG issuance message is transmitted by the issuing bank through SFMS to ICICI Bank include unique identifier EESL543840944 in field 7037 of the SFMS cover messages with IFSC Code ICIC00000007.</p> <div data-bbox="391 1787 1377 1850" style="border: 1px solid black; padding: 5px;"> <p>BG advising message – IFN 760COV / IFN 767COV via SFMS</p> </div>

Sl. No.	GCC Clause Ref. No.	Amendment/Supplement to GCC	
		Field Number	Particulars (to be mentioned in Row 1)
		7037	EESL543840944
7.	GCC 14.2	<p>Replace clause 14.2 with the following:</p> <p>Employer is liable for and shall pay only applicable GST on various components of prices. Implementing Partners are required to quote their prices inclusive of all taxes and duties except applicable GST. The Input Tax Credit (ITC) available, if any, under the GST Law as per the relevant Government policies wherever applicable shall be taken into account by the Implementing Partner while quoting bid price. EESL's liability shall be only for applicable GST.</p> <p>No increase in Taxes and Duties (<i>in case of change</i>), which are payable as per the Contract, shall be allowed beyond the original delivery/ Installation dates unless specifically stated in the Time Extension Letter, if any, issued by the Employer. The Employer will, however, be entitled to any decrease in the Contract Price which may be caused due to lower payable Taxes and Duties amount in case of delivery of Goods/ Installation beyond the original delivery/Installation dates. Therefore, in case of delivery of Goods/Installation beyond the original delivery/ Installation dates, the liability of the Employer shall be limited to the lower of the payable Taxes and Duties amount which may work out either on schedule date or actual date of despatch of Goods/ Installation</p> <p>Notwithstanding anything above or elsewhere in the contract, in event that input Tax credit of the GST charged by the supplier, is denied by the tax authorities to the employer for reasons associated with non-compliance/incorrect compliance by the supplier, the employer shall be entitled to recover such amount from the supplier by way of adjustment from any of the subsequent invoices submitted by the supplier to the employer. In addition to the amount of GST, the employer shall be entitled to recover interest and penalty, in case any interest/or penalty is imposed by the tax authorities on the employer for incorrect/wrong avaiment of input tax credit. The employer shall determine whether the denial of credit is linked to the non-compliance/indirect compliance of the supplier and the said determination shall be binding on the supplier.</p>	
8.	GCC 25.2	The GCC 25.2 i.e., If applicable (as per Technical Specifications)	

Sl. No.	GCC Clause Ref. No.	Amendment/Supplement to GCC				
9.	GCC 25.3.1	<p>Replace GCC 25.3.1 with the following:</p> <p>Subject to GCC Sub-Clause 25.4 (Partial Acceptance) below, Operational Acceptance shall occur in respect of the Facilities or any part thereof when the Facilities or part thereof have been successfully Completed.</p>				
10.	GCC 25.3.2	<p>Replace GCC 25.3.2 with the following:</p> <p>At any time after the event set out in GCC Sub-Clause 25.3.1 has occurred, the Implementing Partner may give a notice to the Project Manager requesting the issue of an Operational Acceptance Certificate in the form acceptable to the EESL in respect of the Facilities or the part thereof specified in such notice as at the date of such notice.</p>				
11.	GCC 26.2	<p>Supplement clause 26.2 with the following:</p> <p>The Contractor shall guarantee the energy generation from the project as per the table in Clause 2.5 Plant Performance Evaluation of this document. In case the contractor is not able to meet the guaranteed energy generation per the Clause 2.5 Plant Performance Evaluation then the contractor shall be liable to pay the penalty as per below mentioned formula:</p> <table><tr><th>Description</th><th>Calculation</th></tr><tr><td>Penalty</td><td>1.15 x No. of kWh shortfall in a year (calculated on pro rata basis as per Clause 2.5 Operational Acceptance Zone wise) X Rs./kWh) (As per PPA signed between EESL and respective DISCOM at 3.00 Rs per unit (kWh))</td></tr></table> <p>The Penalty amount calculated may be adjusted from any amount payable by EESL to the contractor or CPG.</p> <p>In case the Project fails to generate any power continuously for 30 days any time during the O&M period, apart from the force majeure and grid outages as certified by competent authority from STU/ CTU, it shall be considered as “an event of default”. In the case of default, the entire CPG will be encashed. In case the amount discovered in an event of default is more than the encashed CPG amount, then EESL reserves the right to recover the differential amount from other ongoing projects (if any) or by other means, as applicable from the bidder.</p>	Description	Calculation	Penalty	1.15 x No. of kWh shortfall in a year (calculated on pro rata basis as per Clause 2.5 Operational Acceptance Zone wise) X Rs./kWh) (As per PPA signed between EESL and respective DISCOM at 3.00 Rs per unit (kWh))
Description	Calculation					
Penalty	1.15 x No. of kWh shortfall in a year (calculated on pro rata basis as per Clause 2.5 Operational Acceptance Zone wise) X Rs./kWh) (As per PPA signed between EESL and respective DISCOM at 3.00 Rs per unit (kWh))					

Sl. No.	GCC Clause Ref. No.	Amendment/Supplement to GCC
		<p>The contractor has to rectify the solar power plant(s) without any extra cost to EESL/DISCOM. The contractor shall take necessary corrective measures to guarantee the minimum energy generation as per Clause 2.5 Plant Performance Evaluation.</p> <p>In case of partial or full encashment of CPG by EESL, the bidder shall recoup the CPG within 28 days.</p> <p>A. Contractor shall make efforts to maintain 100 % serviceability of complete Plant restoration including all other associated infrastructure developed by the Contractor during restoration and refurbishment of plants(s) and operation and maintenance as its scope of work.</p> <p>B. Contractor shall produce monthly serviceability report for individual components of the plant & associated infrastructure to the EESL/DISCOM by 5th of next month.</p> <p>C. Contractor shall maintain a Complaint logbook, which shall include the timing of logging of complaint including unique Complaint number, time of closure of complaint & its Root Cause Analysis.</p> <p>D. Such rectification work carried out by EESL/DISCOM does not exempts/relieves Contractor from its responsibility towards subsequent operation, maintenance, repair & replacement of such component/ infrastructure of the Plant or meeting the performance parameters of the Plant.</p> <p>E. O&M Routine & Manpower: Contractor shall provide Preventive / Routine Maintenance schedule based on Original Equipment manufacturer and good engineering practices.</p> <p>In case of shortfall in guaranteed energy generation or any delay in the execution of the order beyond the stipulated time schedule decided including any extension permitted in writing, EESL reserves the right to recover from the Contractor for the loss incurred due to delay in restoration recommissioning or shortfall in guaranteed energy generation as indicated in the table below.</p> <p>Alternatively, EESL reserves the right to purchase the material and completion of the works from elsewhere at the sole risk and cost of the</p>

Sl. No.	GCC Clause Ref. No.	Amendment/Supplement to GCC
		<p>successful bidder/ contractor and recover all such extra cost incurred by EESL in procuring the material from resources available including EMD/Bid security/ encashment of the bank guarantee or any other sources etc. and in case of shortfall of some resource's bidder shall deposit the same with EESL forthwith. Further, if any extra cost is incurred by EESL due to delay in work completion by the party beyond the completion time as per PO/LOA, the same shall be recovered from the party's Invoice/EMD/BG etc. If recovery is made from CPG, in such cases, contractor is required to recoup the BG on immediate basis. EESL may adjust all amount recoverable from successful bidder from any amount payable to him.</p> <p>Alternatively, EESL may cancel the order completely or partly without prejudice to its right under the alternatives mentioned above.</p> <p>1.1 Penalty for damage of Solar PV modules</p> <p>In case the damage / breakage of solar PV modules during the Erection and recommissioning period or during O&M period by the contractor, then the penalty shall be levied on the Contractor. Three cases are discussed below.</p> <p>Case 1. The contractor shall be responsible for replacing the damaged Solar PV module with same technical specifications and make. EESL shall review the PV module(s) specifications before replacement. The Contractor shall be responsible for arranging the new solar PV modules at site to avoid penalty under “Penalty for deviation in Guaranteed Energy Generation” for any deviation in energy generation in any year.</p> <p>Case 2: EESL will arrange for the spare solar PV modules from the inventory. The contractor shall make payment to EESL on the total value of the new solar PV module (s).</p> <p>Payment for New Solar PV modules by Contractor to EESL = $1.2 \times \text{Wattage of Solar PV modules (Wp)} \times \text{Rs/Wp (tendered / discovered price for Solar PV Modules)} + \text{Transportation} + \text{GST} + \text{Duties/Cess / others (if applicable)}$.</p> <p>Case 3: In case the spare Solar PV modules are not available with EESL, then EESL shall procure the modules in open market. EESL makes arrangements for supply of new Solar PV modules in place of damaged modules, the Contractor shall make the payment to EESL as per the below table.</p>

Sl. No.	GCC Clause Ref. No.	Amendment/Supplement to GCC														
		<table><tr><th>Details</th><th>Value</th></tr><tr><td>During Erection and Commissioning Period</td><td>1.2 x Wattage of Solar PV modules (Wp) x Rs/Wp (Actual tendered price for Solar PV Modules)</td></tr><tr><td>During Operation and Maintenance Period</td><td>1.2 x Wattage of Solar PV modules damaged (Wp) x Rs/Wp (Actual tendered price of Solar PV Modules)</td></tr></table> <p>The contractor shall pay the penalty (ies) calculated as per the above table. However, the transportation and GST and duties/Cess /others (if applicable) shall be paid extra by the contractor. The contractor shall not claim for any loss due to delay in supply from EESL under Case 2 and Case</p> <p>1.2 Penalty for delay in recommissioning</p> <p>In case the recommissioning of project is delayed, or the contractor is not able to meet the timelines as mentioned in a.14 ‘Project Timelines then the contractor shall pay the penalty at the rate mentioned below for the un-commissioned capacity:</p> <table><tr><th>Delay Period</th><th>Penalty</th></tr><tr><td>Upto 30 days</td><td>1.15 x loss of generation in no. of unit for days of delay (calculated on pro rate basis as per Clause 2.5 Plant performance Evaluation) X Rs. / kWh (Per kWh rate in Rs. As per PPA between EESL & respective DISCOM)</td></tr><tr><td>From 31-60 days</td><td>1.2 x loss of generation in no. of unit for period of delay (calculated on pro rate basis as per Clause 2.5 Plant Performance Evaluation) X Rs. / kWh (Per kWh rate in Rs. As per PPA between EESL & respective DISCOM)</td></tr><tr><td>From 61 & above days</td><td>1.25 x loss of generation in no. of unit for period of delay (calculated on pro rate basis</td></tr></table>	Details	Value	During Erection and Commissioning Period	1.2 x Wattage of Solar PV modules (Wp) x Rs/Wp (Actual tendered price for Solar PV Modules)	During Operation and Maintenance Period	1.2 x Wattage of Solar PV modules damaged (Wp) x Rs/Wp (Actual tendered price of Solar PV Modules)	Delay Period	Penalty	Upto 30 days	1.15 x loss of generation in no. of unit for days of delay (calculated on pro rate basis as per Clause 2.5 Plant performance Evaluation) X Rs. / kWh (Per kWh rate in Rs. As per PPA between EESL & respective DISCOM)	From 31-60 days	1.2 x loss of generation in no. of unit for period of delay (calculated on pro rate basis as per Clause 2.5 Plant Performance Evaluation) X Rs. / kWh (Per kWh rate in Rs. As per PPA between EESL & respective DISCOM)	From 61 & above days	1.25 x loss of generation in no. of unit for period of delay (calculated on pro rate basis
Details	Value															
During Erection and Commissioning Period	1.2 x Wattage of Solar PV modules (Wp) x Rs/Wp (Actual tendered price for Solar PV Modules)															
During Operation and Maintenance Period	1.2 x Wattage of Solar PV modules damaged (Wp) x Rs/Wp (Actual tendered price of Solar PV Modules)															
Delay Period	Penalty															
Upto 30 days	1.15 x loss of generation in no. of unit for days of delay (calculated on pro rate basis as per Clause 2.5 Plant performance Evaluation) X Rs. / kWh (Per kWh rate in Rs. As per PPA between EESL & respective DISCOM)															
From 31-60 days	1.2 x loss of generation in no. of unit for period of delay (calculated on pro rate basis as per Clause 2.5 Plant Performance Evaluation) X Rs. / kWh (Per kWh rate in Rs. As per PPA between EESL & respective DISCOM)															
From 61 & above days	1.25 x loss of generation in no. of unit for period of delay (calculated on pro rate basis															

Sl. No.	GCC Clause Ref. No.	Amendment/Supplement to GCC		
				as per Clause 2.5 Plant Performance Evaluation) X Rs. / kWh (Per kWh rate in Rs. As per PPA between EESL & respective DISCOM)
		<p>If the contractor fails to commission the project beyond 90 days of restart as mentioned in 'Project Timelines under a.14, EESL reserves the right to terminate the contract and the contractor shall reimburse EESL, the loss incurred.</p> <p>Note: Contractor shall inform in writing MSEDCL and EESL by at least 7 days in advance regarding testing of plant from the date of restoration Day of the respective site(s). However, the delay in synchronization and commissioning due to DISCOM may be excluded from penalty.</p>		
12.	GCC 27.2	Supplement GCC 27.2 with the following: Warranty is applicable In line with Section-4 Part-C (Technical Specifications).		
13.	GCC 34	Supplement GCC 34 with the following: 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 as required by any act/law or notification of Government of India for providing services as mentioned in the Bidding Documents.		
14.	GCC 39.2	Supplement 39.2.3 with the following: <ul style="list-style-type: none"> During Execution of contract, EESL reserves the right to increase or decrease the quantity of individual contract Items upto any extent subject to following: As long as overall variation remains within + 15% of the contract price, the rate of individual contract items and other Terms & Conditions of the contract shall remain unaltered. In case overall contract price increases by more than 15%, all such items, where executed/anticipated quantity has exceeded/is expected to exceed that's specified in the contract by more than 15%, will be identified. In respect of all such items while the quantity originally specified in the contract +15% extra shall be paid at unit rate available in the Contract, the 		

Sl. No.	GCC Clause Ref. No.	Amendment/Supplement to GCC
		payment for the balance quantity shall be released at a rate to be decided after mutual agreement.
15.	39.2.6	Addition of new sub clause GCC 39.2.6 with the following: Repeat Order EESL reserves the right to place repeat order upto 50% of original contract value in case of urgency for part quantity for similar work on same prices, terms and conditions. The date of repeat order will not beyond 3 months after the completion of earlier order.

----- *End of Part-D (SCC)* ---



SECTION 5

1. Measurement and Verification (M&V)

Not Applicable for this tender

SECTION-6

Forms & Procedures

List of Contents

Sr. No	Attachment No	Name of Form
1	Attachment No-1	Bid Form (Format of Application)
2	Attachment No-2	Form for Submitting BG Format in lieu of EMD
3	Attachment No-3	Power of Attorney
4	Attachment No-4	Certificate Regarding Acceptance of Important Terms & conditions
5	Attachment No-5	Deviation Statement
6	Attachment No-6	Form of acceptance of fraud prevention policy
7	Attachment No-7	Proforma of letter of undertaking (in case of Holding Company)
8	Attachment No-8	Real time gross settlement (RTGS) / National Electronic Fund Transfer (NEFT)
9	Attachment No-9	Compliance Matrix/ Check – List for Bidders
10	Attachment No-10	Format for Affidavit of Self certification regarding Local Content in line with PPP-MII order and MoP Order, if applicable
11	Attachment No-11	Certification by the Bidder as per order no. F.No.6/18/2019-PPD dated 23/07/2020 issued by Public Procurement Division, Department of Expenditure, Ministry of Finance, Government of India (DoE Order)
12	Attachment No-12	Format for filling details related to Qualifying Requirement (QR) along with certificate regarding capacity and capability of the bidder as Attachment- 12.
13	Attachment No-13	Certificate regarding non- debarment for false declaration of local content
14	Attachment No-14	Certificate regarding non debarment / blacklisting/ disqualification
15	Attachment No-15	Proforma of bank guarantee for contract performance
16	Attachment No-16	Form of Undertaking by the Joint Venture Partners (if applicable)

Sr. No	Attachment No	Name of Form
16	Attachment - A	Format for Notification of Award to be issued to successful Agency/Consultant/Contractor on letterhead paper of the Employer
17	Attachment - C	Format for Contract Agreement to be signed between successful Agency/Consultant/Contractor and Employer on INR 100/- non-judicial Stamp Paper

List of Appendix to Contract Agreement

Sr. No	Appendix To Contract Agreement	Name of Form
1	Appendix No-1	Terms and procedures of payment
2	Appendix No-2	Price adjustment
3	Appendix No-3	Insurance requirements
4	Appendix No-4	Time schedule
5	Appendix No-5	List of approved subcontractors
6	Appendix No-6	Scope of Works and Supply by the Employer
7	Appendix No-7	List of Documents for Approval or Review
8	Appendix No-8	Guarantees, liquidated damages for non - performance
9	Appendix No-9	Contract Co-ordination procedure

BID FORM (FORMAT OF APPLICATION)

To,
 Head (Contracts)
 Energy Efficiency Services Limited.
 (A JV of PSUs of Ministry of Power, Govt. of India)
 Core-5, 4th Floor, SCOPE Complex,
 Lodhi Road, New Delhi-110003

Subject: -

Date:-XX-XX-XXXX

Dear Sir,

With Reference to your subject IFB/RfP, we are pleased to submit our bid/proposal for the Package as mentioned under **“Refurbishment & restoration for the revival of the solar plant with Operation and Maintenance for the remaining period up to 10 years of operation from the date of commissioning of the 48 sites of distributed solar plant of cumulative capacity 51.89 MWp in Maharashtra”** in a sealed cover as detailed below:

1.0 Packet-I of Envelope 1:

- (a) **Bid Fee:** Fee towards cost of RfP Documents as per clause ITB 1.4 or documentary evidence as mentioned in Annexure-II of RFP in support of exemption of Document Fee.
- (b) **Bid Security Fee/Earnest Money Deposit:** In the form of Banker's Cheque / Demand Draft drawn in favour of “Energy Efficiency Services Limited” or in the form of Bank Guarantee as per prescribed format at **Attachment-2** in section 6 or documentary evidence as mentioned in Annexure-II of RFP in support of exemption of Bid Security/EMD.

2.0 Packet-II of Envelope 1:

- (a) Attachment 1: Bid Form
- (b) Attachment 3: Power of Attorney
- (c) Attachment 4: Certificate regarding acceptance of important terms and conditions
- (d) Attachment 5: Deviation statement
- (e) Attachment 6: Form of acceptance of EESL fraud prevention policy
- (f) Attachment 7: An undertaking by Holding Company (As Applicable).
- (g) Attachment 8: Format for details regarding RTGS/NEFT Payments
- (h) Attachment 9: Compliance Matrix/ Check - List for Bidders
- (i) Attachment 10: Certificate Regarding Declaration of Local Content
- (j) Attachment 11: “Restrictions on procurement from a Bidder of a country which shares a land border with India” Certification by the Bidder per order no.

NIT Bid Document No: EESL/06/2024-25/Solar Restoration & Refurbishment /OTE/242509002	SECTION -6 Forms & Procedures	Page 3 of 79
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F.No.6/18/2019-PPD dated 23/07/2020 issued by Public Procurement Division, Department of Expenditure, Ministry of Finance, Government of India (DoE Order)

- (k) Attachment-12: Details regarding Qualifying Requirement / Eligibility criteria as per Part-B (BDS).
- (l) Attachment-13: Certificate regarding non- debarment for false declaration of local content.
- (m) Attachment-14: Certificate regarding non debarment / blacklisting/ disqualification.
- (n) Techno-commercial bid as indicated in bid document. Documentary evidence regarding bidder's qualifications to perform the contract as required in qualifying Requirement.

- 3.0 Envelope 2: Price Bid (duly filled in electronic template as available on the e-portal)
- 4.0 We confirm that we have quoted as per instructions and terms and conditions of tender/RfP documents. Further, it is certified that in line with clause 1.1.2 of Section-2 (ITB) no conflict of interest exists as on date and if in future such a conflict of interest arises, we will intimate the same.
- 5.0 We declare that the prices left blank in the price schedule/price bid will be deemed to have been included in the prices of other items. We confirm that except as otherwise specifically provided, our bid prices include all applicable taxes & duties except applicable GST. The GST shall be paid extra at actual.
- 6.0 We further declare that additional conditions, variations, deviations, if any, found in the proposal save those pertaining to any rebates offered, shall not be given effect to.
- 7.0 We undertake, if our bid is accepted, we shall commence the work immediately upon your Notification of Award to us, to achieve completion of work within the time specified in the bidding documents.
- 8.0 We agree to abide by this bid for a period Six Months from the date of opening of bids as stipulated in the RfP documents and it shall remain binding upon us and may be accepted by you at any time before the expiration of that period. Further, the prices of recommended spares, if asked for; contained in our bid shall remain valid for the entire project period after issuance of Notification of Award.
- 9.0 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 a binding contract between us.
- 10.0 We understand that you are not bound to accept the lowest or any other bid you may receive.
- 11.0 We declare that we are registered, as applicable, with ESIC, EPF and Miscellaneous Provisions Act 1952 and will comply with Employees Compensation Act, 1923 and Minimum Wages Act, 1948.

12.0 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.

Dated -----

NAME/S & AUTHORIZED
SIGNATORIES:
ADDRESS:
MOBILE NO.:
LAND LINE NO.:

Our correspondence details are:

1	Name of the bidder	
2	Address of the bidder	
3	Name of the contact person to whom all references shall be made regarding this tender	
4	Designation of the person to whom all references shall be made regarding this tender	
5	Address of the person to whom all references shall be made regarding this tender	
6	Telephone (with STD code)	
7	E-Mail of the contact person	
8	Fax No. (with STD code)	
9	GST No. of the bidder	

Note: In case of non-submission of this Bid form, bid will be rejected

Form for Submitting BG Format in lieu of EMD.

(To be stamped in accordance with Stamp Act, if any, of the country of the issuing Bank)

Bank Guarantee No.

Date.....

To:

Energy Efficiency Services Limited.
(A JV of PSUs of Ministry of Power, Govt. of India)
Core-3, 6th Floor, SCOPE Complex,
Lodhi Road, New Delhi-110003

Dear Sir(s),

In accordance with invitation for bids under your bidding document/package no.....dated.....M/s.....
.....having its registered/head office at.....(here in after called "Bidder") wish to participate in the said bid for (name of package)

We, the (Name and address of the bank), having our head office at guarantee and undertake to pay immediately on demand by Energy Efficiency Services Limited, the amount of without any reservation, protest, 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.

The Guarantee shall be irrevocable and shall remain valid upto If any further extension of guarantee is required, the same shall be extended to such period (not exceeding one year) on receiving instructions from..... (Bidder's Name)_____, on whose behalf guarantee is issued.

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

Witness:

Signature:

Name:

Official address:

Signature:

Name:

Designation with Bank Stamp

Authorized vide.

Power of Attorney no.

Date

NOTE:

- Bid Security amount shall be as specified in the IFB/ITB.
- Complete mailing address of the Head Office of the Bank to be given. The bank guarantee validity date shall be forty-five (45) days after the last date for which the bid is valid.
- The Stamp Paper of appropriate value shall be purchased in the name of the guarantee issuing Bank. The Bank Guarantee shall be issued on a stamp paper of value as applicable in the State of the issuing bank in India or the State of Delhi in India or the State of India from where the BG shall be operated, whichever is higher.
- While getting the Bank Guarantee issued, Bidders are required to ensure compliance to the Bank Guarantee Verification Check List. Further, Bidders are required to fill up this Form 16 and enclose the same with the Bank Guarantee.

BANK GUARANTEE CHECK LIST

1	Bank Guarantee No.	
2	Issuing Bank	
3	Nature of BG & No. of Pages	
4	Validity of BG	
5	Package Description	
6	Party & Contracts ref.	Name, Address, Tel, Fax, E – mail
7	Bank Reference	

CHECK LIST

Sl. No.	Details of Checks	YES / NO
a)	Is the BG on non-judicial Stamp Paper of appropriate value, as per Stamp Act?	
b)	Whether date, purpose of purchase of stamp paper and name of the purchaser are indicated on the back of Stamp paper under the Signature of Stamp vendor? (The date of purchase of stamp paper should be not later than the date of execution of BG and the stamp paper should be purchased either in the name of the executing Bank or the party on whose behalf the BG has been issued. Also, the Stamp Paper should not be older than six months from the date of execution of BG)	

c)	In case the BG has been executed on Letter Head of the Bank, whether adhesive Stamp of appropriate value has been affixed thereon?	
d)	Has the executing Officer of BG indicated the name, designation and Power of Attorney No. / Signing Power no. etc., on the BG?	
e)	Is each page of BG duly signed / initiated by executants and whether stamp of Bank is affixed thereon? Whether the last page is signed with full particulars including two witnesses under seal of Bank as required in the prescribed proforma?	
f)	Does the Bank Guarantees compare verbatim with the proforma prescribed in the bid documents?	
g)	In case of any changes in contents of text, whether changes are of minor/clerical nature (which in no way limits the right of EESL in any manner)?	
h)	In case of deviations in text of BG, which materially affect the right of EESL, whether the changes have been agreed based on the opinion by Legal Department or BG I considered acceptable on the basis of opinion of law Department already available on the similar issue.	
i)	Are the factual details such as Bid Document No. NOA/LOA/Contact No., Contract Price, Percentage of Advance, Amount of BG and Validity of BG correctly mentioned in the BG?	
j)	Whether overwriting / cutting if any on the BG have been properly authenticated under signature and seal of executant?	
k)	Whether the BG has been issued by a Bank in line with the provisions of Bid / Contract documents?	
l)	In case BG has been issued by a Bank other than those specified of Bid / Contract Documents, is the BG confirmed by a Bank in India acceptable as per Bid / Contract documents?	

ANNEXURE-A

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

SCHEDULED COMMERCIAL BANKS

- SBI AND ASSOCIATES**

Sl. No.	Name of Banks	Sl. No.	Name of Banks
1.	State Bank of India	5.	State Bank of Mysore
2.	State Bank of Bikaner and Jaipur	6.	State Bank of Patiala
3.	State Bank of Hyderabad	7.	State Bank of Saurashtra
4.	State Bank of Indore	8.	State Bank of Travancore

- NATIONALISED BANKS**

Sl. No.	Name of Banks	Sl. No.	Name of Banks
9.	Allahabad Bank	13.	Canara Bank
10.	Andhra Bank	14.	Central Bank of India
11.	Bank of India	15.	Corporation Bank
12.	Bank of Maharashtra	16.	Dena Bank
17.	Indian Bank	18.	Indian Overseas Bank
19.	Oriental Bank of Commerce	20.	Punjab National Bank
21.	Punjab & Sind Bank	22.	Syndicate Bank
23.	Union Bank of India	24.	United Bank of India
25.	UCO Bank	26.	Vijaya Bank
27.	Bank of Baroda		

- SCHEDULED PRIVATE BANKS (INDIAN BANKS)**

Sl. No.	Name of Banks	Sl. No.	Name of Banks
27.	Bank of Rajasthan	41.	Sangli Bank Ltd.
28	Bharat Overseas Bank Ltd.	42.	South Indian Bank Ltd.
29.	Catholic Syrian Bank	43.	Tamilnad Mercantile Bank Ltd.
30.	City Union Bank	44.	United Western Bank Ltd.
31.	Dhanalakshmi Bank	45.	ING Vysya Bank Ltd.
32.	Federal Bank Ltd.	46	UTI Bank Ltd.
33.	Jammu & Kashmir Bank Ltd.	47.	S.B.I. Commercial & International Bank Ltd.
34.	Karnataka Bank Ltd.	48.	Ganesh Bank of Kurundwad Ltd.
35.	Karur Vysya Bank Ltd.	49.	INDUSIND Bank Ltd.
36.	Lakshmi Vilas Bank Ltd.	50.	ICICI Bank Ltd.
37.	Lord Krishna Bank Ltd.	51.	HDFC Bank Ltd.
38.	Nainital Bank Ltd.	52.	Centurion Bank of Punjab Limited
39.	Kotak Mahindra Bank	53.	Development Credit Bank Ltd.
40.	Ratnakar Bank Ltd.	54.	Yes Bank

(D) SCHEDULED PRIVATE BANKS (FOREIGN BANKS)

Sl. No.	Name of Banks	Sl. No.	Name of Banks
55.	Abu Dhabi Commercial Bank Ltd.	71.	Sonali Bank
56.	ABN Amro Bank Ltd.	72.	Standard Chartered Bank
57.	American Express Bank Ltd.	73.	J.P Morgan Chase Bank
58.	Bank of America NA	74.	State Bank of Mauritius
59	Bank of Bahrain & Kuwait	75.	Development Bank of Singapore
60.	Mashreq Bank	76.	Bank of Ceylon
61.	Bank of Nova Scotia	77.	Bank International Indonesia

62.	The Bank of Tokyo-Mitsubishi UFJ Limited.	78.	Arab Bangladesh Bank
63.	Calyon Bank	79.	Cho Hung Bank
64.	BNP Paribas	80.	China Trust Bank
65.	Barclays Bank	81.	MIzuho Corporate Bank Ltd.
66.	Citi Bank	82.	Krung Thai Bank
67.	Deutsche Bank	83.	Antwerp Diamond Bank N.V. Belgium
68.	The Hong Kong and Shanghai Banking Corporation Ltd.	84.	Internationale Nederlanden Bank N.V. (ING Bank)
69.	Oman International Bank	85.	Bank of China Ltd.
70.	Societe Generale		

(E) PUBLIC SECTOR BANK

Sl. No.	Name of Banks	Sl. No.	Name of Banks
86.	IDBI Ltd.		

Note: Any Addition/Deletion/Modification/ in Bank list shall be as per changes in second schedule List of above categories of Bank by RBI from time to time.

BID SECURITY FORM (For Insurance Surety Bond)

(To be stamped in accordance with Stamp Act of India)

Insurance Surety Bond No.:

Date:

To: (insert Name and Address of Employer)

WHEREAS M/s. (Insert name of Bidder)..... having its Registered/Head Office at (Insert address of the Bidder) (Hereinafter called "the Bidder" which expression shall include its successors, administrators, executors and assigns) has submitted its Bid for the performance of the Contract for '.....', under Specification No.: (Hereinafter called "the Bid")

KNOW ALL PERSONS by these present that WE (insert name & address of the **Insurer**) having its Registered/Head Office at(insert address of registered office of the **Insurer**)..... (hereinafter called "**the Insurer**" which expression shall include its successors, administrators, executors and assigns), are bound unto(insert name of Employer)..... (hereinafter called "the Employer") in the sum of(insert amount of Bid Security in figures & words)..... for which payment well and truly to be made to the said Employer, the **Insurer** binds itself, its successors and assigns by these presents.

Sealed with the Common Seal of the said **Insurer** this day of 20....

THE CONDITIONS of this obligation are:

- (1) If the Bidder withdraws its bid during the period of bid validity specified by the Bidder in the Bid Form; or
- (2) In case the Bidder does not withdraw the deviations proposed by him, if any, at the cost of withdrawal stated by him in the bid and/or accept the withdrawals/rectifications pursuant to the declaration/confirmation made by him in the Bid; or

- (3) If the Bidder does not accept the corrections to arithmetical errors identified during preliminary evaluation of his bid pursuant to terms and conditions of the RfP; or
- (4) If, as per the requirement of Qualification Requirements the Bidder is required to submit a Deed of Joint Undertaking and he fails to submit the same, duly attested by Notary Public of the place(s) of the respective executants (s) or registered with the Indian Embassy/High Commission in that Country, within ten days from the date of intimation of post – bid discussion; or
- (5) In the case of a successful Bidder, if the Bidder fails within the specified time limit
 - (i) To sign the Contract Agreement, in accordance with Conditions of the Tender, or
 - (ii) To furnish the required performance security, in accordance with Conditions of the Tender.

or
- (6) In any other case specifically provided for in ITB.

WE undertake to pay to the Employer up to the above amount upon receipt of its first written demand, without the Employer having to substantiate its demand, provided that in its demand the Employer will note that the amount claimed by it is due to it, owing to the occurrence of any of the above-named CONDITIONS or their combination, and specifying the occurred condition or conditions.

This guarantee will remain in full force up to and including (*insert date in line with stipulations of the tender*)....., and any demand in respect thereof must reach the **Insurer** not later than the above date.

Notwithstanding anything contained herein:

1. Our liability under this **Insurance Surety Bond** shall not exceed _____ (*value in figures*) _____ [*value in words*] _____.

2. This **Insurance Surety Bond** shall be valid upto _____(validity date)_____.

3. We are liable to pay the guaranteed amount or any part thereof under this **Insurance Surety Bond** only & only if we receive a written claim or demand on or before _____ (validity date) _____

For and on behalf of the **Insurer**

[Signature of the authorised signatory(ies)]

Signature_____

Name_____

Designation_____

Contact Number(s): Tel._____Mobile_____

Fax Number_____

email _____

Common Seal _____

Witness:

Signature_____

Name_____

Address_____

Contact Number(s): Tel._____Mobile_____

email _____

Note:

1. In case the bid is submitted by a Joint Venture, the bid security shall be in the name of the Joint Venture and not in the name of the Lead Partner or any other Partner(s) of the Joint Venture.
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 Insurance Surety Bond.

Tender Document No/Package No:

Dated:

Package Details.....

POWER OF ATTORNEY

BIDDER TO ATTACH THE POWER OF ATTORNEY IN THEIR OWN FORMAT

Tender Document No/Package No:

Dated:

(CERTIFICATE REGARDING ACCEPTANCE OF IMPORTANT CONDITIONS)

Bidder's Name& Address

To,
 Head (Contracts)
 Energy Efficiency Services Limited.
 (A JV of PSUs of Ministry of Power, Govt. of India)
 Core-5, 4th Floor Scope Complex,
 Lodhi Road, New Delhi - 110003
 Sub:

.....

1.0 With reference to our bid proposal no.....dated.....**for**
/ **Package no.**
Dated, we hereby confirm that we have read the following provisions
 of the following clauses and further confirm that notwithstanding anything stated
 elsewhere to the contrary, the stipulation of these clauses are acceptable to us and we
 have not taken any deviation to these clauses.

Governing Laws	-	Clause 5 of GCC
Settlement of Disputes	-	Clause 6 of GCC
Terms of payment	-	Clause 12 of GCC
Contract Performance Security	-	Clause 13.3 of GCC
Taxes and Duties	-	Clause 14 of GCC
Completion Time Guarantee	-	Clause 26 of GCC
Defects Liability	-	Clause 27 of GCC
Functional Guarantee	-	Clause 28 of GCC
Patent Indemnity	-	Clause 29 of GCC
Limitations of Liability	-	Clause 30 of GCC
Project information, Estimation, Assumptions and conditions for Evaluation	-	As per Tables in price bid

We further confirm that any deviation to the above clauses found anywhere in our bid proposal, implicit or explicit, shall stand unconditionally withdrawn, without any implication to EESL.

Date:
 Place:

Signature:
 Printed Name:

Designation:
 Common Seal

NAME OF WORK.....

BIDDING DOCUMENT NO.....

(Deviations Statement)

Bidder's Name and Address:

To,

Head (Contracts)

Energy Efficiency Services Limited.

(A JV of PSUs of Ministry of Power, Govt. of India)

Core-5, 4th Floor Scope Complex,

Lodhi Road, New Delhi - 110003

Dear Sir,

The following are the deviations and variations from and exceptions to the terms, conditions and specification of the bidding documents for IFB/RfP No. _____. These deviations and variations are exhaustive. We are furnishing below the cost of withdrawal for the deviations and variations stated in this Attachment. We shall withdraw the deviations proposed by us in this Attachment at the cost of withdrawal indicated herein, failing which our bid may be rejected and bid security may be forfeited. We confirm that except for these deviations and variations, the entire work shall be performed as per your specifications and conditions of bidding documents. Further, we agree that additional conditions, variations, deviations if any, found in the proposal documents other than those stated in this Attachment, save those pertaining to any rebates offered, shall not be given effect to:

Section/ Part/ Chapter	Clause No.	Page No.	Statement of Deviations/ Variations	Cost withdrawal	of
------------------------------	---------------	-------------	-------------------------------------------	--------------------	----

////

A. COMMERCIAL DEVIATIONS:

B. TECHNICAL DEVIATIONS:

Date : (Signature).....

Place :

(Printed Name)

(Designation).....

(Common Seal)

Note:

1. Continuations sheets of like size and format may be used as per Bidder's requirement.
2. In case of non-submission of this Attachment, the bid shall be considered as no deviation bid.

FORM OF ACCEPTANCE OF FRAUD PREVENTION POLICY
(On the letter head)

To:

Head (Contracts)
 Energy Efficiency Services Limited.
 (A JV of PSUs of Ministry of Power, Govt. of India)
 Core-5, 4th Floor Scope Complex,
 Lodhi Road, New Delhi - 110003

Sub: Letter of Acceptance of EESL Fraud Policy

Ref: NIT/RFP No.

Dear Sir/Madam,

We have read the contents of the Fraud Prevention Policy of EESL and undertake that we along with our associate / collaborator / sub-contractors / sub-vendors / bidders/ service providers shall strictly abide by the provisions of the Fraud Prevention Policy of EESL.

Thanking You,

Yours faithfully,

Signature

Printed Name

Designation.....

Common Seal.....

Date:

Place:

FOR DETAILED POLICY, PLEASE VISIT OUR WEBSITE www.eeslindia.org

PROFORMA OF LETTER OF UNDERTAKING

**(TO BE FURNISHED ON NON-JUDICIAL STAMP PAPER OF APPROPRIATE
VALUE)**

[To be executed by the Holding Company Supported by Board Resolution and submitted by the Bidder along with the Bid, in case financial support is being extended by the Holding Company to the Bidder for meeting the stipulated Financial Qualifying]

Ref.: NIT/Bid Document No.:

Our Reference NoDate:

Bidder's Name and Address:

To,

Head (Contracts)
Energy Efficiency Services Limited.
(A JV of PSUs of Ministry of Power, Govt. of India)
Core-5, 4th Floor Scope Complex,
Lodhi Road, New Delhi - 110003

Dear Sir,

1.0 We, M/s..... (Name of the Holding Company) declare that we are the holding company of M/s..... (Name of the Bidder) and have a controlling interest therein.

M/s..... (Name of the Bidder) proposes to submit the bid for the package (Name of the package) for (Name of the Project) under bid reference no..... dated and have sought financial strength and support from us for meeting the stipulated Financial Qualifying Requirement as per Clause Section 3 and its subsequent amendment.

2.0 We hereby undertake that we hereby pledge our unconditional & irrevocable financial support for the execution of the said package to M/s..... (Name of the Bidder), for the execution of the Contract, in case they are awarded the Contract for the said package at the end of the bidding process. We further agree that this undertaking shall be without prejudice

to the various liabilities that M/s..... (Name of Bidder) would be required to undertake in terms of the Contract including the Performance Security as well as other obligations of M/s.....(Name of the Bidder).

3.0 This undertaking is irrevocable and unconditional and shall remain in force till the successful execution and performance of the entire contract and/or till it is discharged by EESL.

4.0 We are herewith enclosing a copy of the Board Resolution in support of this undertaking.

Witness:

Yours faithfully,

(1)

(Signature of Authorized Signatory)
on behalf of the Holding Company

(2)

Name & Designation

Name of the Holding Company

.....

(Seal of Holding Company)

**REAL TIME GROSS SETTLEMENT (RTGS)/ NATIONAL ELECTRONIC FUND
TRANASFER (NEFT)**

From: M/s _____

— _____

Sub: RTGS/NEFT Payments

We are agree to accept admissible payments through electronic mode viz RTGS/NEFT. For this, we are providing the requisite information herein below. The RTGS/NEFT charges for the above facility may be deducted/Recovered from our admissible payment.

Name Of City	
Bank Code No.	
Branch Code No.	
Bank's Name	
Branch Address	
Branch Telephone/ Fax No.	
Supplier Account No.	
Type of Account	
IFSC Code for NEFT	
IFSC Code for RTGS	
Supplier's name as per Account	
Telephone No. of Supplier	
Supplier's E-mail ID	
GSTIN of Supplier	
PAN No. of Supplier	

A cancelled cheque against above bank account number is also being enclosed.

Encl: As above: -

Confirmed by Banker
 Signature of supplier
 With Seal

With stamp & Address

Compliance Matrix/ CHECK - LIST FOR BIDDERS

Please ensure these major Terms & Conditions before submitting you bids in order to avoid REJECTION of your offer.

Sr. No.	Detail/Terms & Conditions	Applicable For	Attached		Reasons for non-compliance/remarks
			Yes	No	
1	Bid Fee (If Applicable)	Indian Bidders			
2	EMD (If Applicable)	Indian Bidders			
3	Bid Fee exempted for being MSE/Start-up	Indian Bidders			
	EMD exempted for being MSE/Start-up	Indian Bidders			
	In case of claiming exemption in submission of Bid Fee and EMD, Relevant Certificate of MSEs/Start-up certificate from DIPP (Refer Section-2) is required to be submitted	Indian Bidders			
	In case of claiming exemption in submission of Bid Fee and EMD, enclose proof of being a manufacturer of tendered. Relevant document issued by competent Govt. Authority/Body shall be submitted.	Indian Bidders			
	In case of Start-up, Business Eligibility certificate (for item tendered) is also required to be submitted	Indian Bidders			
	In case of SC/ST entrepreneurs belonging to MSE, documentary proof to be submitted	Indian Bidders			
5	In case of Women entrepreneurs belonging to MSE, documentary proof to be submitted	Indian Bidders			
	Duly signed and company sealed copy of whole tender document and subsequent amendments (if any)	Indian Bidders			
6	Duly filled up and attached Technical (Unpriced) Bid and all applicable formats of tender document.	Indian Bidders			
7	Acceptance of important terms and conditions in line with ITB clause 4.6 as per format attached as Attachment-4,	Indian Bidders			
8	Separate sheet(s) of deviation (Attachment-5) If any, from the tender conditions with seal and signature of authorized personnel.	Indian Bidders			

9	Form of acceptance of EESL fraud prevention policy and declaration as per Attachment- 6	Indian Bidders			
10	CERTIFICATE REGARDING DECLARATION OF LOCAL CONTENT (As per attachment 10 of the tender document)	Indian Bidders			
11	Certification by the Bidder per order no. F.No.6/18/2019-PPD dated 23/07/2020 issued by Public Procurement Division, Department of Expenditure, Ministry of Finance, Government of India (DoE Order) (as per format in Attachment -11 of Section-6)	Indian Bidders			
12	GST Registration Certificate and PAN Card Copy.	Indian Bidders			

The above mentioned points are major Terms & Conditions and are indicative in nature. Bidder shall carefully go through the detailed requirements, QR and other terms and conditions for better understanding and submit the bid accordingly.

Format for Affidavit of Self certification regarding Local Content in line with PPP-MII order and MoP Order, if applicable, to be provided on a non-judicial stamp paper of Rs. 100/-.

..... Name of the Tender.....;

Date:

I _____ S/o, _____ D/o, _____ W/o, _____ Resident
of _____ hereby solemnly
affirm and declare as under:

That I will agree to abide by the terms and conditions of the Public Procurement (Preference to Make in India) Order, 2017 of Government of India issued vide Notification No: P-45021/2/2017 -BE-II dated 15/06/2017, its revision dated **16/09/2020** (hereinafter **PPP-MII order**),

'Public Procurement (Preference to Make in India) to provide for Purchase Preference (linked with local content)' order dated 16/11/2021 issued by Ministry of Power (hereinafter **MoP order)** and any subsequent modifications/ Amendments, if any and

That the information furnished hereinafter is correct to the best of my knowledge and belief and I undertake to produce relevant records before the procuring entity/EESL or any other Government authority for the purpose of assessing the local content of goods/services/works supplied by me for

.....

That the local content for all inputs which constitute the said goods/services/works has been verified by me and I am responsible for the correctness of the claims made therein.

That the 'Local Content 'as defined in the PPP-MII order and MoP order in the goods/services/works supplied by me for

....., is percent (%).

That the goods/services/works supplied by me for

....., meet the 'Local Content' requirement as defined in the PPP-MII order **and MoP order for 'Class -I local supplier'**.

That the value addition for the purpose of meeting the 'Local Content 'has been made by me at (Enter the details of the location(s) at which value addition is made).

That in the event of the local content of the goods/services/works mentioned herein is found to be incorrect and not meeting the prescribed Local Content criteria, based on the

assessment of procuring agency (ies)/EESL/Government Authorities for the purpose of assessing the local content, action shall be taken against me in line with the PPP-MII order, **MoP order** and provisions of the Integrity pact/ Bidding Documents.

I agree to maintain the following information in the Company's records for a period of 8 years and shall make this available for verification to any statutory authority.

- i Name and details of the Local Supplier
(Registered Office, Manufacturing unit location, nature of legal entity)
- ii. Date on which this certificate is issued
- iii. Goods/services/works for which the certificate is produced
- iv. Procuring entity to whom the certificate is furnished
- v. Percentage of local content claimed and whether it meets the Local Content prescribed for '**Class -I local supplier**'
- vi. Name and contact details of the unit of the Local Supplier (s)
- vii. Sale Price of the product
- viii Ex-Factory Price of the product
- ix. Freight, insurance and handling
- x. Total Bill of Material
- xi List and total cost value of input used to manufacture the Goods/to provide services/in construction of works.
- xii. List and total cost of input which are domestically sourced. Value addition certificates from suppliers, if the input is not in-house to be attached.
- xiii. List and cost of inputs which are imported, directly or indirectly

For and on behalf of..... (Name of firm/entity)

Authorized signatory (To be duly authorized by the Board of Directors)

<Insert Name, Designation and Contact No.>

Certificate from 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, in line with PPP-MII order and MoP order, if applicable *[to be submitted on the letter head of the issuer.]*

Dear Sir,

We have read and understood the provisions of “Public Procurement (Preference to Make in India) Order, 2017” dated 15/06/2017, its revision dated 16/09/2020 [hereinafter, “PPP-MII Order”] issued by **Department for promotion of Industry and Internal Trade (DPIIT)**, Ministry of Commerce and Industry, Government of India,

‘Public Procurement (Preference to Make in India) to provide for Purchase Preference (linked with local content)’ order dated 16/11/2021 issued by Ministry of Power [hereinafter, “MoP order”]

and any subsequent modifications/ Amendments, if any.

In line with the provisions of the PPP-MII Order **and MoP Order**, M/s.*[Enter the name of the Bidder]* [hereinafter, **“Class-I Local Supplier”**] have submitted an Affidavit of self-certification to M/s. Energy Efficiency Services Limited [hereinafter, EESL] regarding Local Content in Goods/Services/Works to be supplied by the **“Refurbishment & restoration for the revival of the solar plant with Operation and Maintenance for the remaining period up to 10 years of operation from the date of commissioning of the 48 sites of distributed solar plant of cumulative capacity 51.89 MWp in Maharashtra”**.

wherein they have agreed to abide by the terms and conditions of the PPP-MII Order **and MoP Order**.

Further, in line with the PPP-MII Order, the statutory auditor or cost auditor of the company (in the case of companies) or a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) shall provide a certificate giving the percentage of Local Content in the Goods/Service/Works to be supplied by the **“Class-I Local Supplier”** for **“Refurbishment & restoration for the revival of the solar plant with Operation and Maintenance for the remaining period up to 10 years of operation from the date of commissioning of the 48 sites of distributed solar plant of cumulative capacity 51.89 MWp in Maharashtra”**.

Accordingly, we, the Statutory Auditor(s) / Cost auditor of the **“Class-I Local Supplier”** a practicing cost accountant or practicing chartered accountant *[choose as applicable]*, certify that the Local Content as defined under the PPP-MII **and MoP Order**, in the Goods/Service/Works to be supplied by the **“Class-I Local Supplier”** for **“Refurbishment & restoration for the revival of the solar plant with Operation and Maintenance for the remaining period up to 10 years of operation from the date of commissioning of the 48 sites of distributed solar plant of cumulative capacity 51.89 MWp in Maharashtra”** is percentage *[specify the percentage of Local content]*.

For and on behalf of,

Date:

<<Statutory Auditor's/Cost auditor's/Cost accountant's/Chartered accountant's attestation>>

Firm Reg No. Membership No.

Note: This is a guiding format. In case the bidder submits the certificate in a format different from the above, the same may be considered provided it meets the intent and purpose, as may be ascertained by EESL.

Certification by the Bidder as per order no. F.No.6/18/2019-PPD dated 23/07/2020 issued by Public Procurement Division, Department of Expenditure, Ministry of Finance, Government of India (DoE Order)

- 1.0 We have read and understood the provisions of Order no. F.No.6/18/2019-PPD (Order Public Procurement no.1) dated 23/07/2020 regarding “Restriction under Rule 144(xi) of General Financial Rules” and F.No.6/18/2019-PPD (Order Public Procurement no.2) dated 23/07/2020 regarding “Exclusions from Restriction under Rule 144(xi) of General Financial Rules” issued by Public Procurement Division, Department of Expenditure, Ministry of Finance, Government of India [hereinafter collectively “DoE Order”] and any subsequent modifications/Amendments, if any.
- 2.0 Particularly, we, the Bidder, 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.
- 3.0 We certify that we, the bidder is not from such a country or, if from such a country, has been registered **as per provisions of the requisite Order/Circular/Document** with the Competent Authority and will not subcontract any work to a subcontractor/sub vendor from such countries unless such subcontractor/sub vendor fulfils all requirement in this regard and is eligible to be considered. [*Where applicable, evidence of valid registration by the Competent Authority shall be attached.*]
- 4.0 We further declare that any misrepresentation or submission of false/forged document/information in this regard shall be dealt with as per the provisions of RfP Documents and/or EESL’s policy and procedures.

Date:

Printed Name:

Place:

Designation:

Format for filling details related to Eligibility Conditions and Qualifying Requirement (QR):

(This format is required to be submitted by the Bidder along with data/details/documents submitted in support of meeting criteria for eligibility conditions and QR)

Eligibility Conditions		
Sl. No.	Details	Declaration by the Bidder (Declare/Tick (✓) whichever is applicable)
1.	Status of the Bidder	
a.	Bidder should be a Single Entity means a limited company (as defined in the Companies Act, 1956 and further amendment thereof)	<input type="checkbox"/>
b.	A registered partnership firm (registered under section 59 of the Partnership Act, 1932)	<input type="checkbox"/>
c.	A limited liability partnership (under the Limited Liability Partnership Act, 2008)	<input type="checkbox"/>
1.1	Details of Documents submitted as evidence for aforesaid status	(...fill in no. and date of Documentary evidence....)
2.	<p>PPP MII guidelines issued by Govt. of India shall be applicable for this tender.</p> <p>Only Class-I Local Suppliers with 50% minimum local content are eligible to bid in this tender in conformance with the order for "Public procurement (Preference to make in India) to provide for Purchase preference (linked with local content in respect of Renewable Energy (RE) sector" issued vide order ref no. F.No. 283/22/2019-GRID SOLAR Dated 09.02.2021</p> <p>NOTE: - Only Class-I suppliers as defined in the above tender are eligible to take part in this bidding process.</p>	<p>Attachment 10 is attached.</p> <p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p>

Eligibility Conditions

Sl. No.	Details	Declaration by the Bidder (Declare/Tick (✓) whichever is applicable)
3.	<p>Pursuant to Order No. F. No 6/18/2019-PPD dated-23-July-2020 from Department of Expenditure, Ministry of Finance, the applicant should be either of the following:</p> <ul style="list-style-type: none"> · Not from a country which shares a land border with India <p>OR</p> <ul style="list-style-type: none"> · Applicant from a country which shares a land border with India and registered with Competent Authority in accordance with order mentioned above. <p>The definition of “Bidder” from a country which shares a land border with India shall be as in paragraph 8 of the above-mentioned order. Further, all the guidelines mentioned to this above order shall be applicable to this Tender. Bidder shall carefully go through the same and ensure its eligibility as per the said order.</p>	<p>Attachment 11 is attached.</p> <p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p>
4.	Not to be blacklisted by Central/State/UT Government or any Public sector entities for the tender item/work.	<p>Submitted Self Declaration on Company’s Letter Head</p> <p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p>

Qualifying Requirement

Sl. No.	Details	Declaration by the Bidder (Declare/Tick (✓) whichever is applicable)
1.1.1	Mention no. and date of Contract for which Documentary Evidence is attached in respect of work experience for ‘similar assignments’ in line with the QR.	(--fill in Contract No. and its Date-----)

a)	Mention Name and Address of Client along with Contact details of concerned person	(--fill in requisite details----- -)
b)	Whether Scope of Work under above referred Contract at sl. no. 1.1.1 includes below mentioned similar work:	
	<p>“Similar Work” means</p> <p>Supply & Installation of Solar Projects / Solar Power Generating System / Solar Rooftop System</p> <p>or</p> <p>Infrastructure Development like Land Development & Power Evacuation (LD & PE) of Solar Projects / Solar Power Generating System / Solar Rooftop System</p> <p>or</p> <p>Operation & Maintenance of for Solar Projects / Solar Power Generating System / Solar Rooftop System</p>	<p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p>
c)	Value of Work Order	----- -
d)	Date of execution/completionDD/MM/YYYY...

Sl. No.	Details	Declaration by the Bidder (Declare/Tick (✓) whichever is applicable)
1.2.1	<p>Average Annual Turnover (ATO) during the last 3 Financial Years</p> <p>(i) Financial Year 1</p> <p>(ii) Financial Year 2</p> <p>(iii) Financial Year 3</p>	<p>INR.....</p> <p>INR.....</p> <p>INR.....</p>
1.2.1.1	Duly authorized copy of audited financial statements for preceding last three Financial Year is submitted	<p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p>
1.2.2	Liquid Assets (L.A) as on 31st March of last available Year.	INR.....

1.2.2.1	Certification from Bank regarding availability of credit facilities is submitted.	Yes <input type="checkbox"/> No <input type="checkbox"/>
1.2.3	Net worth of the bidder in immediate last financial year	INR.....
2	Bidder is Start-up/MSE as per relevant policy/guidelines of Government of India.	MSE <input type="checkbox"/> Start-up <input type="checkbox"/> None <input type="checkbox"/>
2.1	Documentary Evidence Submitted in support of sl. no.2 above	(...fill in name of Documentary Evidence....)

I hereby declare that data/ details as filled-in hereinabove are true and correct, in case of any misrepresentation by us suitable action may be taken by EESL as per the provision of RfP Documents and EESL's Policy and Guidelines.

Signature:

Name:

Designation:

For and on behalf of M/s.....

**CERTIFICATE REGARDING NON- DEBARMENT FOR FALSE DECLARATION OF
LOCAL CONTENT
[On the Letter Head]**

To,
Head (Contracts)
Energy Efficiency Services Limited.
(A JV of PSUs of Ministry of Power, Govt. of India)
4th Floor, CORE -5, Scope Complex, Lodhi Road, New Delhi 110003

Sub: Certificate regarding non debarment for false declaration of Local Content

Ref: NIT/Bid Document No:

Dear Sir/Madam,

We certify that we are not under debar list/undergoing debarment period on account of breach of the code of integrity under rule 175(1)(i)(h) of General Financial Rules for giving false declaration of local content.

Thanking You,

Yours faithfully,

Signature

.....

Printed Name.....

Seal.....

Date:

Place:

**CERTIFICATE REGARDING NON-DEBARMENT /
BLACKLISTING/DISQUALIFICATION
[On the Letter Head]**

To,
Head (Contracts)
Energy Efficiency Services Limited.
(A JV of PSUs of Ministry of Power, Govt. of India)
4th Floor, CORE -5, Scope Complex, Lodhi Road, New Delhi 110003

Sub: Certificate regarding non debarment / blacklisting/disqualification

Ref: NIT/Bid Document No:

Dear Sir/Madam,

We certify that we have not been black-listed/ debarred/ dis-qualified by any regulatory/ statutory body/ Central/State/UT Government or any Public sector entities for tendered services. We further certify that we have read the contents of the Fraud Prevention Policy of EESL (available on website of EESL i.e. www.eeslindia.org) and undertake that we along with our associate / collaborator / sub-contractors / sub-vendors / bidders/ service providers shall strictly abide by the provisions of the Fraud Prevention Policy of EESL.

Thanking You,

Yours faithfully,

Signature

.....
Printed Name.....

Seal.....

Date:

Place:

(On Non – Judicial Stamp Paper of appropriate value and purchased in the name of
executing Bank)

PROFORMA OF BANK GUARANTEE FOR CONTRACT PERFORMANCE

Ref.:

Bank Guarantee No.....

Date.....

To,

Energy Efficiency Services Limited.
(A JV of PSUs of Ministry of Power, Govt. of India)
Core-5, 4th Floor Scope Complex,
Lodhi Road, New Delhi - 110003

Dear Sirs,

In consideration of the EESL, (hereinafter referred to as the 'Owner,' which expression shall unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having awarded to M/s.....with its Registered / Head Office at(hereinafter referred to as the 'Contractor', which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators and assigns), a Contract by issue of Owner's Letter of Award No.....datedand the same having been unequivocally accepted by the Contractor and the contractor (Scope of Contract) 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 Owner.

We(Name & address) 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 Owner, on demand any all money payable by the Contractor to the extent ofas aforesaid at any time up to(days/months/year) without any demur,

reservation, contest, recourse or protest and / or without any reference to the Contractor. Any such demand made by the Owner on the Bank shall be conclusive and binding notwithstanding any difference between the Owner 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 Owner and further agrees that the guarantee herein contained shall continue to be enforceable till the owner discharges this guarantee.

The owner shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee from time to time to extent the time for performance of the Contract by the Contractor. The owner 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 to enforce or to forbear to enforce any covenants, contained or implied, in the Contract between the owner and Contractor or any other course of or remedy or security available to the owner. The Bank shall not be released of its obligations under these presents by any exercise by the owner of its liberty with reference to the matters aforesaid on any of other indulgence shown by the owner 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 agree that the Owner 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 not withstanding any security or other guarantee that the owner may have in relation to the Contractor's liabilities.

Notwithstanding anything contained herein above our liability under this guarantee is restricted to.....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.....on whose behalf this guarantee has been given.

Witness

Dated thisday of.....at.....

Witness

.....

Signature

.....

.....

Name

.....

Official Address

Signature

Bank's Rubber Stamp

Name

.....
Designation with Bank Stamp

Attorney as per power of
Attorney

No.....dated.....

.....

Note: ** Validity of Bank Guarantee should be 90 days in excess of the period for which it is required.

BANK GUARANTEE CHECK LIST

1	Bank Guarantee No.	
2	Issuing Bank	
4	Nature of BG & No. of Pages	
5	Validity of BG	
6	Package Description	
7	Party & Contracts ref.	Name, Address, Tel, Fax, E – mail
8	Bank Reference	

CHECK LIST

S. No.	Details of Checks	YES/ NO
a)	Is the BG on non-judicial Stamp Paper of appropriate value, as per Stamp Act?	
b)	Whether date, purpose of purchase of stamp paper and name of the purchaser are indicated on the back of Stamp paper under the Signature of Stamp vendor? (The date of purchase of stamp paper should be not later than the date of execution of BG and the stamp paper should be purchased either in the name of the executing Bank or the party on whose behalf the BG has been issued. Also the Stamp Paper should not be older than six months from the date of execution of BG)	
c)	In case the BG has been executed on Letter Head of the Bank, whether adhesive Stamp of appropriate value has been affixed thereon?	
d)	Has the executing Officer of BG indicated the name, designation and Power of Attorney No./ Signing Power no. etc., on the BG?	
e)	Is each page of BG duly signed / initiated by executants and whether stamp of Bank is affixed thereon? Whether the last page is	

	signed with full particulars including two witnesses under seal of Bank as required in the prescribed proforma?	
f)	Does the Bank Guarantees compare verbatim with the Proforma prescribed in the Bid Documents?	
g)	In case of any changes in contents of text, whether changes are of minor / clerical nature (which in no way limits the right of EESL in any manner)?	
h)	Incase of deviations in text of BG, which materially affect the right of EESL, whether the changes have been agreed based on the opinion by Legal Department or BG I considered acceptable on the basis of opinion of law Department already available on the similar issue.	
i)	Are the factual details such as Bid Document No.NOA/LOA / Contact No., Contract Price, Percentage of Advance, Amount of BG and Validity of BG correctly mentioned in the BG?	
j)	Whether overwriting / cutting if any on the BG have been properly authenticated under signature and seal of executant?	
k)	Whether the BG has been issued by a Bank in line with the provisions of Bid / Contract documents?	
l)	In case BG has been issued by a Bank other than those specified of Bid / Contract Documents, is the BG confirmed by a Bank in India acceptable as per Bid / Contract documents?	

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

SCHEDULED COMMERCIAL BANKS

- **SBI and Associates**

Sl. No.	Name of Banks	Sl. No.	Name of Banks
1.	State Bank of India	5.	State Bank of Mysore
2.	State Bank of Bikaner and Jaipur	6.	State Bank of Patiala
3.	State Bank of Hyderabad	7.	State Bank of Saurashtra
4.	State Bank of Indore	8.	State Bank of Travancore

- **Nationalized Banks**

Sl. No.	Name of Banks	Sl. No.	Name of Banks
9.	Allahabad Bank	18.	Indian Overseas Bank
10.	Bank of India	19.	Oriental Bank of Commerce
11.	Bank of Maharashtra	20.	Punjab National Bank
12.	Canara Bank	21.	Punjab & Sind Bank

13.	Central Bank of India	22.	Syndicate Bank
14.	Corporation Bank	23.	Union Bank of India
15.	Dena Bank	24.	United Bank of India
16.	Indian Bank	25.	UCO Bank
17.	Vijaya Bank	26.	Bank of Baroda

C. Foreign Banks

Sl. No.	Name of Banks	Sl. No.	Name of Banks
27.	Bank of America NA	34.	Standard Chartered Bank
28.	The Bank of Tokyo-Mitsubishi UFJ Limited.	35.	Societe Generale
29.	BNP Paribas	36.	Barclays Bank
30.	Calyon Bank	37.	ABN Amro Bank N. V.
31.	Citi Bank N.A.	38.	Bank of Nova Scotia
32.	Deutsche Bank A. G.	39.	Development Bank of Singapore
33.	The Hong Kong and Shanghai Banking Corporation Ltd.		

D. SCHEDULED PRIVATE BANKS

Sl. No.	Name of Banks	Sl. No.	Name of Banks
40.	ING Vysya Bank Ltd.	43.	UTI Bank Ltd.
41.	ICICI Bank Ltd.	44.	YES Bank
42.	HDFC Bank Ltd.	45.	IDFC Bank.
46.	South Indian Bank		

E. Other Public Sector Banks

Sl. No.	Name of Banks	Sl. No.	Name of Banks
45.	IDBI Ltd.		

Note: Any Addition/Deletion/Modification/ in Bank list shall be as per changes in second schedule List of above categories of Bank by RBI from time to time.

PERFORMANCE SECURITY FORM (For Insurance Surety Bond)

(To be stamped in accordance with Stamp Act of India)

Insurance Surety Bond No.:

Date:

NOA/Contract No.....

.....[Name of Contract].....

To: [Name and address of the Owner]

Dear Ladies and/or Gentlemen,

We refer to the Contract ("the Contract")

vide notification of award issued on (insert date of the notification of award)....by
you to M/s (Name of Contractor),

(or)

signed on(insert date of the Contract)..... between you and M/s
(Name of Contractor),

having its Principal place of business at(Address of Contractor)
..... and Registered Office at(Registered address of Contractor)
..... ("the Contractor") concerning
..... (Indicate brief scope of work) for the complete
execution of the (insert name of Package alongwith name of the Project).....

[Applicable for **Insurance Surety Bond** issued by Contractor/Associate for those Contracts awarded to them]

Or

We refer to the Contract

signed on(insert date of the Contract)..... between you and M/s
(Name of Contractor),

(or)

vide notification of award issued on(insert date of the notification of award)..... by
you to M/s (Name of Contractor)

having its Principal place of business at(Address of Contractor)
..... and Registered Office at(Registered address of Contractor)
..... ("the Contractor") and the Contract
("the Contract") signed on(insert date of the Contract)..... between you and
M/s (Name of Associate), having its Principal place of business at
.....(Address of Associate) and Registered Office at
.....(Registered address of Associate)
....., the Associate of the Contractor for
executing the Facilities concerning (Indicate brief scope of work)
..... for the complete execution of the (insert name of Package
alongwith name of the Project)..... [Applicable for **Insurance Surety Bond** to be issued
by Contractor against those Contracts awarded to their Associate]

By this letter we, the undersigned,(insert name & address of the issuing **Insurer**)
....., a **Insurer** (which expression shall include its successors, administrators,
executors and assigns) organized under the laws of and having its
Registered/Head Office at(insert address of registered office of the
Insurer)..... do hereby irrevocably guarantee payment to you up to
..... i.e., Ten percent (10%) of the Contract Price until ninety (90) days
beyond the Defect Liability Period i.e., upto and inclusive of (dd/mm/yy).

We undertake to make payment under this **Insurance Surety Bond** upon receipt by us of your first written demand signed by your duly authorized officer declaring the Contractor to be in default under the Contract and without cavil or argument any sum or sums within the above named limits, without your need to prove or show grounds or reasons for your demand and without the right of the Contractor to dispute or question such demand.

Our liability under this **Insurance Surety Bond** shall be to pay to you whichever is the lesser of the sum so requested or the amount then guaranteed hereunder in respect of any demand duly made hereunder prior to expiry of the Letter of Guarantee, without being entitled to inquire whether or not this payment is lawfully demanded.

This **Insurance Surety Bond** shall remain in full force and shall be valid from the date of issue until ninety (90) days beyond the Defect Liability Period of the Facilities i.e. upto and inclusive of (dd/mm/yy) and shall be extended from time to time for such period (not exceeding one year), as may be desired by M/s. on whose behalf this Letter of Guarantee has been given.

Except for the documents herein specified, no other documents or other action shall be required, notwithstanding any applicable law or regulation.

Our liability under this **Insurance Surety Bond** shall become null and void immediately upon its expiry, whether it is returned or not, and no claim may be made hereunder after such expiry or after the aggregate of the sums paid by us to you shall equal the sums guaranteed hereunder, whichever is the earlier.

All notices to be given under shall be given by registered (airmail) posts to the addressee at the address herein set out or as otherwise advised by and between the parties hereto.

We hereby agree that any part of the Contract may be amended, renewed, extended, modified, compromised, released or discharged by mutual agreement between you and the Contractor, and this security may be exchanged or surrendered without in any way impairing or affecting our liabilities hereunder without notices to us and without the

necessity for any additional endorsement, consent or guarantee by us, provided, however, that the sum guaranteed shall not be increased or decreased.

No action, event or condition which by any applicable law should operate to discharge us from liability hereunder shall have any effect and we hereby waive any right we may have to apply such law so that in all respects our liability hereunder shall be irrevocable and, except as stated herein, unconditional in all respects.

Notwithstanding anything contained herein:

1. Our liability under this **Insurance Surety Bond** shall not exceed _____ (*value in figures*) _____ [*value in words*] _____.
2. This **Insurance Surety Bond** shall be valid upto _____ (*validity date*) _____.
3. We are liable to pay the guaranteed amount or any part thereof under this **Insurance Surety Bond** only & only if we receive a written claim or demand on or before _____ (*validity date*) _____.

For and on behalf of the **Insurer**

[*Signature of the authorised signatory(ies)*]

Signature _____

Name _____

Designation _____

Contact Number(s): Tel. _____ Mobile _____

Fax Number_____

email _____

Common Seal of the Insurer _____

Witness:

Signature_____

Name_____

Address_____

Contact Number(s): Tel._____Mobile_____

email _____

Note:

1. 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.
2. The Insurance Surety Bond shall be signed on all the pages by the Insurer Authorities and should invariably be witnessed.
3. 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.

4. 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.
5. While getting the Insurance Surety Bond issued, Contractors/ Suppliers are required to ensure compliance to the points mentioned in Form of Insurance Surety Bond.

FORM OF UNDERTAKING BY THE JOINT VENTURE PARTNERS (If Applicable)
(On Non-Judicial Stamp Paper of Appropriate Value if required)

THIS JOINT DEED OF UNDERTAKING executed on this..... day of..... Two Thousand and..... by a company incorporated under the laws ofand having its Registered Office at (hereinafter called the "Party No.1" which expression shall include its successors, executors and permitted assigns) and M/s.....a company incorporated under the laws of.....and having its Registered Office at..... (hereinafter called the "Party No.2" which expression shall include its successors, executors and permitted assigns) for the purpose of making a bid and entering into a contract [hereinafter called the "Contract" {in case of award}] against the NIT/ICB No.....for*(insert name of the Tender)*... .. of Energy Efficiency Services Limited, a Company incorporated under the Companies Act of 1956 having its registered office at NFL Building, 5th & 6th Floor, Core – III, SCOPE Complex, Lodhi Road, New Delhi – 110003 (hereinafter called the "Purchaser").

WHEREAS the Party No.1 and Party No.2 have entered into an Agreement dated

AND WHEREAS the Purchaser invited bids as per the above mentioned Specification for the design, manufacture, Supply of Equipment Materials stipulated in the bidding documents under subject **Tender** **i.e.**.....

AND WHEREAS Clause 19, Section-ITB and BDS (documents establishing the Qualification of Bidder) & Qualification Criteria in Section-3 forming part of the bidding documents, inter-alia stipulates that an Undertaking of two qualified manufacturers as partners, meeting the requirements of Qualification Criteria in Section-3, as applicable may bid, provided, the Joint Venture fulfills all other requirements under Clause 4 of ITB and Qualification Criteria in Section-3 and in such a case, the Bid Submission Sheets shall be signed by all the partners so as to legally bind all the Partners of the Joint Venture,

who will be jointly and severally liable to perform the Contract and all obligations hereunder.

The above clause further states that this Undertaking shall be attached to the bid and the Contract performance guarantee will be as per the format enclosed with the bidding document without any restrictions or liability for either party.

AND WHEREAS the bid is being submitted to the Purchaser vide proposal No.....dated..... by Party No.1 based on this Undertaking between all the parties; under these presents and the bid in accordance with the requirements of Clause 19, Section-ITB and BDS (documents establishing the Qualification of Bidder) & Qualification Criteria in Section-3, has been signed by all the parties.

NOW THIS UNDERTAKING WITNESSETH AS UNDER:

In consideration of the above premises and agreements all the parties of this Deed of Undertaking do hereby declare and undertake:

1. In requirement of the award of the Contract by the Purchaser to the Joint Venture Partners, we, the Parties do hereby undertake that M/s..... the Party No.1, shall act as Lead Partner and further declare and confirm that we the parties to the Joint Venture shall jointly and severally be bound unto the Purchaser for the successful performance of the Contract and shall be fully responsible for the design, manufacture, Supply, and successful performance of the equipment in accordance with the Contract:
2. In case of any breach or default of the said Contract by any of the parties to the Joint Venture, the party(s) do hereby undertake to be fully responsible for the successful performance of the Contract and to carry out all the obligations and responsibilities under the Contract in accordance with the requirements of the Contract.
3. Further, if the Purchaser suffers any loss or damage on account of any breach in the Contract or any shortfall in the performance of the equipment in meeting the performances guaranteed as per the specification in terms of the Contract, the

Party(s) of these presents undertake to promptly make good such loss or damages caused to the Purchaser, on its demand without any demur. It shall not be necessary or obligatory for the Purchaser to proceed against Lead Partner to these presents before proceeding against or dealing with the other Party(s), the Purchaser can proceed against any of the parties who shall be jointly and severally liable for the performance and all other liabilities/obligations under the Contract to the Purchaser.

4. The financial liability of the Parties of this Deed of Undertaking to the Purchaser, with respect to any of the claims rising out of the performance or non-performance of the obligations set forth in this Deed of Undertaking, read in conjunction with the relevant conditions of the Contract shall, however not be limited in any way so as to restrict or limit the liabilities or obligations of any of the Parties of this Deed of Undertaking.
5. It is expressly understood and agreed between the Parties to this Undertaking that the responsibilities and obligations of each of the Parties are given as in the bid. It is further undertaken by the parties that the above sharing of responsibilities and obligations shall not in any way be a limitation of joint and several responsibilities of the Parties under the Contract.
6. It is also understood that this Undertaking is provided for the purposes of undertaking joint and several liabilities of the partners to the Joint Venture for submission of the bid and performance of the Contract. and that this Undertaking shall not be deemed to give rise to any additional liabilities or obligations, in any manner or any law, on any of the Parties to this Undertaking or on the Joint Venture, other than the express provisions of the Contract.
7. This Undertaking shall be construed and interpreted in accordance with the provisions of the Contract.
8. In case of an award of a Contract, we the parties to this Deed of Undertaking do hereby agree that we shall be jointly and severally responsible for furnishing a Contract performance security from a bank in favour of the Purchaser in the currency/currencies of the Contract. In case of award on us, the delineation of scope of work shall be as per the following:

Sl. No.	Scope of Work to be executed by
---------	---------------------------------

	Party No.-1	Party No.-2

9. It is further agreed that this Deed of Undertaking shall be irrevocable and shall form an integral part of the bid and shall continue to be enforceable till the Purchaser discharges the same or upon the completion of the Contract in accordance with its provisions, whichever is earlier. It shall be effective from the date first mentioned above for all purposes and intents.

IN WITNESS WHEREOF, the Parties to this Deed of Undertaking have through their authorised representatives executed these presents and affixed Common Seals of their companies, on the day, month and year first mentioned above.

Common Seal of For Lead Partner (Party No.-1)

has been affixed in my/ our For and on behalf of M/s

presence pursuant to Board of

Director's Resolution dated

Name

Designation

Signature (Signature of the authorized representative)

WITNESS :

I.

II.

Common Seal of For Party No.-2

has been affixed in my/ our

presence pursuant to Board of
Director's Resolution dated

For and on behalf of
M/s.....

Name

Designation

Signature

(Signature of the authorized
representative)

WITNESS :

I.

II.

Common Seal of
has been affixed in my/ our
presence pursuant to Board of
Director's Resolution dated

For Party No.-3

For and on behalf of M/s
.....

Name

Designation

Signature

(Signature of the authorized
representative)

WITNESS:

I.

II.

FORM OF POWER OF ATTORNEY FOR JOINT VENTURE (if applicable)

(On Non-Judicial Stamp Paper of Appropriate Value if required)

KNOW ALL MEN BY THESE PRESENTS THAT WE, the Partners whose details are given hereunder..... have formed a Joint Venture under the laws of and having our Registered Office/Head Office at (hereinafter called the 'Joint Venture' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) acting through M/s. being the Partner incharge do hereby constitute, nominate and appoint M/s. a Company incorporated under the laws of and having its Registered/Head Office at as our duly constituted lawful Attorney (hereinafter called "Attorney" or "Authorized Representative" or "Partner In-charge") to exercise all or any of the powers for and on behalf of the Joint Venture in regard to Specification No.....; Package, the bids for which have been invited by Energy Efficiency Services Limited, a Company incorporated under the Companies Act of 1956 having its registered office at NFL Building, 5th & 6th Floor, Core - III, SCOPE Complex, Lodhi Road, New Delhi - 110003, INDIA (hereinafter called the "Purchaser") to undertake the following acts:

- i) To submit proposal and participate in the aforesaid Bid Specification of the Purchaser on behalf of the "Joint Venture".
- ii) To negotiate with the Purchaser the terms and conditions for award of the Contract pursuant to the aforesaid Bid and to sign the Contract with the Purchaser for and on behalf of the "Joint Venture".
- iii) To do any other act or submit any document related to the above.
- iv) To receive, accept and execute the Contract for and on behalf of the "Joint Venture".
- v) To receive payment on behalf of the "Joint Venture".

vi) To authorize any other partners of the Joint Venture, if necessary, to receive payments under the contract.

It is clearly understood that the Partner In charge shall ensure performance of the Contract(s) and if one or more Partner fail to perform their respective portions of the Contract(s), the same shall be deemed to be a default by all the Partners.

It is expressly understood that this Power of Attorney shall remain valid binding and irrevocable till completion of the Warranty Period in terms of the Contract.

The Joint Venture hereby agrees and undertakes to ratify and confirm all the whatsoever the said Attorney / Authorised Representative quotes in the bid, negotiates and signs the Contract with the Purchaser and/or proposes to act on behalf of the Joint Venture by virtue of this Power of Attorney and the same shall bind the Joint Venture as if done by itself.

IN WITNESS THEREOF the Partners Constituting the Joint Venture as aforesaid have executed these presents on this day of under the Common Seal(s) of their Companies.

for and on behalf of
the Partners of Joint Venture

.....
.....
.....

The Common Seal of the above Partners of the Joint Venture :

The Common Seal has been affixed there unto in the presence of :

WITNESS

1. Signature.....

Name

Designation

Occupation

2. Signature.....

Name

Designation

Occupation

Notification of Award

[Format for Notification of Award to be issued to successful Consultant on letterhead paper of the Employer]

Ref. No.:

Date:

.....(*insert Consultant's Name & Address*)

.....

Attn.: Mr.....

Sub.: Notification of Award for (*insert name of the Tender*) Specification No.:

(Project Funding: Domestic).

Dear Sir,

1.0 REFERENCE

This has reference to the following:

1.1 RfP documents for the subject package issued to you vide our letter Ref. No. dated,

1.1.1 Amendment/Errata No. to RfP Documents issued to you vide our letter no. dated

(Applicable only if any Errata/Amendment to the RfP Documents has been issued subsequently)

1.1.2 Clarifications to the RfP Documents, pursuant to pre-Bid conference held on, issued to you vide our letters no. dated *(Use as applicable)*

(Applicable only if any clarification to the RfP Documents has been issued subsequently)

(INCLUDE AS FURTHER SUB-PARAGRAPHS ANY OTHER CORRESPONDENCE MADE TO THE CONSULTANT AFTER ISSUANCE OF RfP DOCUMENTS UP TO BID OPENING)

- 1.2 First envelope of your Bid submitted for the subject package under Bid reference no. dated was opened on (*Use as applicable*)
- 1.3 Intimation for Opening of Second Envelope issued to you vide our letter no. dated
- 1.4 Second Envelope of your Bid under Bid/Proposal reference no. dated was opened on..... (*Use as applicable*)
- 1.5 (*to be inserted if applicable*) Post bid discussions we had with you on various dates from to resulting into the Minutes of Meeting/ Record Notes of Post Bid Discussions enclosed as APPENDIX (NOA)-1with this Notification of Award.

2.0 AWARD OF CONTRACT AND ITS SCOPE

- 2.1 We confirm having accepted your Bid (referred to at para 1.3 & 1.5 above) read in conjunction with all the specifications, terms & conditions of the RfP Documents (referred to at para 1.2, 1.2.1 & 1.2.2 [*modify as applicable*] above) and specific confirmations recorded in the Record Notes of Post Bid Discussions (referred to at para 1.6 above), and award on you the Contract for (*insert name of the Tender*) The scope of work inter-alia includes..... (*Indicate brief Scope of Work*) as detailed in the documents referred hereinabove.

The scope of work under this Notification of Award (NOA) shall also include all such items which are not specifically mentioned in the RfP Documents and/or your Bid but are necessary for the successful completion of your scope under the Contract for (*insert name of Tender*), unless otherwise specifically excluded in the RfP Documents or in this NOA.

3.0 CONTRACT PRICE

- 3.1 The total Contract Price for the entire scope of work under this Contract shall be (*Specify the currency and the amount in figures & words*) as per the following break-up:

S. No.	Description of Work	No. of Sites	Cumulative Capacity (MW)	Base Price exclusive of GST in Rs.
(1)	(2)	(3)	(4)	(5)
1	Part -A: Bidder shall quote for Restoration & Refurbishment for the revival of the plant.	10	7.16	
2	Part B: Bidder shall quote price for the individual items as per BoQ per site, Part B will be independent of the health of the plant.			
3	Part -C: Bidder shall quote for the comprehensive operation and maintenance of the plants for remaining period from 10 years of operation from the date of commissioning on per month basis.			
4	Total [A]	10	7.16	

3.2 Notwithstanding the break-up of the Contract Price, the Contract shall, at all times, be construed as a single source responsibility Contract and any breach in any part of the Contract shall be treated as a breach of the entire Contract.

4.0 You are required to furnish at the earliest a Performance Security(ies), as per the RfP Documents, for an amount of (*Specify the value*) i.e. equal to 5% (Five percent) of the Contract Price, and valid upto and including and any other securities as per the RfP Documents.

(In case any other performance security is required to be furnished, the same is to be mentioned here)

5.0 All the bank guarantees shall be furnished from an eligible bank as described in the RfP Documents.

6.0 The schedule for Completion of entire scope of works covered under (*insert name of Tender*) shall be ... (*indicate the completion schedule*) months from the date of issue of this Notification of Award for all contractual purposes.

- 7.0 This Notification of Award constitutes formation of the Contract and comes into force with effect from the date of issuance of this Notification of Award.
- 8.0 You shall enter into a Contract Agreement with us within twenty-eight (28) days from the date of this Notification of Award.
- 9.0 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 the enclosed Appendix as a token of your acknowledgement.

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*)

Enclosures (if Applicable):

APPENDIX (NOA) – 1 - Record Notes of Post - Bid Discussions held on various dates from to

Contract Agreement

*[Format for Contract Agreement to be signed between successful Consultant and Employer on
INR 100/- non-judicial Stamp Paper]*

CONTRACT AGREEMENT BETWEEN(Name of Employer) AND M/s.
..... (Name of Consultant)

THIS CONTRACT AGREEMENT No. (also referred to as 'Contract') is
made on the day of 20....

BETWEEN

(1)(Name of Employer) a company incorporated under the laws
of Companies Act 1956 and having its Registered Office at (registered address of the
Employer) and its Corporate Office at(address of the
Employer)..... (hereinafter called "the Employer" and also referred to as "(insert
abbreviated name of the Employer)")

and

(2) M/s(Name of Consultant), a company incorporated under the laws of
Companies Act 1956 and having its Principal place of business at (Address of
Consultant) and Registered Office at(Registered address of
Consultant) (hereinafter called "the Agency" /"the Consultant" and also referred
to as "(insert abbreviated name of the Consultant)").

WHEREAS the Employer desires to engage the Consultant for (Indicate
brief scope of work) for the complete execution of the (insert name of
Package along with name of the Project)..... as detailed in the Contract Document, and the
Consultant has 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

The following documents shall constitute the Contract between the Employer and the *Consultant*, and each shall be read and construed as an integral part of the Contract:

VOLUME – A

1. This Contract Agreement and the Appendices thereto.
2. Notification of Award Ref. No. dated

VOLUME – B

3. Complete “RfP Documents” read in conjunction with Amendments to to the RfP Documents.

VOLUME – C

4. Proposal Submitted by the Consultant.

(Only relevant extracts are attached herewith for easy reference. Should the circumstances warrant, the original Proposal along with the enclosures thereof, shall be referred to.).

1.2 Order of Precedence

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 Conditions of Contract Clause 1.0.1)

- 1.3.1 Capitalized words and phrases used herein shall have the same meanings as are ascribed to them in the Conditions of Contract.

Article 2. Contract Price and Terms of Payment

2.1 Contract Price

The Employer hereby agrees to pay to the Consultant the Contract Price in consideration of the performance by the Consultant of its obligations hereunder. The Contract Price shall be the aggregate of (*amount in words*) (*.....(amount in figures)*), or such other sums as may be determined in accordance with the terms and conditions of the Contract. The break-up of the

Contract price is as under:

S. No.	Description of Work	No. of Sites	Cumulative Capacity (MW)	Base Price exclusive of GST in Rs.
(1)	(2)	(3)	(4)	(5)
1	Part -A: Bidder shall quote for Restoration & Refurbishment for the revival of the plant.	10	7.16	
2	Part B: Bidder shall quote price for the individual items as per BoQ per site, Part B will be independent of the health of the plant.			
3	Part -C: Bidder shall quote for the comprehensive operation and maintenance of the plants for remaining period from 10 years of operation from the date of commissioning on per month basis.			
4	Total [A]	10	7.16	

The detailed break-up of Contract Price is given in the relevant Appendices hereto.

2.2 Terms of Payment (Reference Conditions of Contract Clause 13.0.0)

The terms and procedures of payment according to which the Employer will reimburse the *Consultant* 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 Conditions of Contract Clause 1.0.1)

The Time of Completion of entire scope of work shall be determined from the date of the Notification of Award i.e., from

Article 4. Appendices

The Appendices listed in the List of Appendices, as mentioned below, 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.

List of Appendices

Appendix 1	Terms and Procedures of Payment
Appendix 2	Price Adjustment
Appendix 3	Insurance Requirement
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	Guarantees, Liquidated Damages for Non – Performance
Appendix 9	Contract Co-ordination Procedure

IN WITNESS WHEREOF the Employer and the *Consultant* 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

Signed by for and
on behalf of the Consultant

.....
Signature

.....
Signature

.....
Title

.....
Title

in the presence of

in the presence of

Appendix-1 to Contract Agreement

TERMS AND PROCEDURES OF PAYMENT

Payment towards Refurbishment & restoration for the revival of the solar plant with Operation and Maintenance for the remaining period up to 10 years of operation from the date of commissioning of the 48 distributed solar sites (51.89 MWp) in Maharashtra shall be made in the following manner:

- 1.1. Payments shall be released against each component of Price Bid in the following manner after submission by the contractor and acceptance of Security cum Performance Bank Guarantee by EESL and signing of Agreement as per provisions of bidding document. The Total Project Cost is calculated as sum of Part A, Part B and Part C of price bid table.

During Repair, Replace Refurbishment Restoration, Testing and Recommissioning:

Definition of Part A: Bidder shall quote for Restoration & Refurbishment for the revival of the plant. The Part A will have bearing on the health of the plant.

The bidder shall submit the lumpsum value of restoration for each site (zone wise) for the Part A and the plants would be given operational acceptance after restoration and refurbishment of the plants based on Performance Ratio Guarantee Test (As per Clause 2.5-Operational Acceptance) and submission of the survey report along the details of the items installed to maintain the health of the plant.

Part A (As per definition)				
Sl No.	Zone-1 (Site details)	Description	% of Payment	Criteria
1	Site-1,2,3,	As per Part A definition:	<p>50 % of (Part A) as per price bid & 100% of GST value</p> <p>And</p> <p>30% of (Part A) as per price bid</p> <p>And</p> <p>20% of (Part A) as per price bid</p>	<p><u>For 50% payment</u></p> <p>1. Supply of Material at respective sites for restoration of the plant. (Material Receipt Certificate-signed and stamped by respective Site Engineer)</p> <p><u>For 30% payment</u></p> <p>2. Installation/Erection of all project material for restoration, testing, synchronization of project (s) and successful operation of the project(s) along with requisite documentation, training program(s) and Issuance of Completion and Re-Commissioning certificate signed by EESL site representative (s). Valid insurance and warranty certificates are also to be furnished.</p> <p><u>For 20% payment</u></p> <p>3. Performance Ratio (PR), minimum $\geq 70\%$, to be achieved in last 7 days from the date of re-commissioning as per clause 2.5.1.</p>

Note: For payment clearance documents must be submitted as per Appendix-8

Definition of Part B: Bidder shall quote price for the individual items as per BoQ per site, Part B will be independent of the health of the plant.

In respect to Part B, the bidder would quote the rates as per the BoQ in the tender document, which is required to be replaced at the site, however, the successful bidder would be paid as per actual items, subject to the maximum of BoQ.

Part B (As per definition)				
Sl No.	Zone-1 (Site details)	Description	% of Payment	Criteria
1	Site 1,2,3,...		<p>80% of (Part B) as per price bid & (100% of GST value)</p> <p>20% of (Part B) as per price bid</p>	<p>For 80% payment</p> <p>Material Receipt certificate along with warranty certificate and installation of the equipment duly signed by EESL site representative (s). Site wise installed BoQ would be submitted signed by EESL site incharge and vendor.</p> <p>For remaining 20% payment</p> <p>After successful commissioning and operations of the equipments supplied</p>

Definition of Part C: Bidder shall quote for the comprehensive operation and maintenance of the plants for remaining period from 10 years of operation from the date of commissioning on per month basis.

In respect to the Part C, the bidder shall quote for the operation and maintenance of the plant on the watt peak basis on monthly basis. In the case of the fractional month at the end of the O & M period if the number of days is more than 15 days for that month, the vendor shall be paid for the full month, and the number of days is less than 15 days for that month, the vendor shall not be paid for the full month.

In addition to the above, the generation guarantee (CUF) from the plant shall be fixed and the bidder shall also demonstrate the achievement of PR at the end of each year and in case of the shortfall the bidder shall take necessary steps to rectify the same.

Once fixed, for the subsequent years, the bidder shall ensure the generation guarantee for each year after considering the degradation factor of the solar modules.

Part C (Comprehensive Operation and Maintenance for a period upto 10 years from date of original COD)				
Sl No.	Zone-1 (Site details)	Description	% of Payment	Criteria
1	Site 1,2,3....	Comprehensive Operation and Maintenance. (with equipment warranties and insurance). With availability, reliability and performance as per SLA.	50% of total yearly O&M value as semi-annual instalment at the end of every 6 months (for contract period) of satisfactory service	Trouble free operation and maintenance of the site as per RfP from the date of re-commissioning of the project. This shall be certified by EESL site representative. Illustration for payment: Eg. Say 5 years of Comprehensive O&M is to be provided for a plant. This translates to 10 nos. of instalment (2 instalment per year). The

				quoted amount for O&M shall be paid proportionately in 10 nos. of instalment.
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Payment towards Taxes and Duties

Employer is liable for and shall pay only applicable GST on various components of prices. Suppliers are required to quote their prices inclusive of all taxes and duties except applicable GST. The Input Tax Credit (ITC) available, if any, under the GST Law as per the relevant Government policies wherever applicable shall be taken into account by the Implementing Partner while quoting bid price. EESL's liability shall be only for applicable GST.

No increase in Taxes and Duties (in case of change), which are payable as per the Contract, shall be allowed beyond the original delivery/ Installation dates unless specifically stated in the Time Extension Letter, if any, issued by the Employer. The Employer will, however, be entitled to any decrease in the Contract Price which may be caused due to lower payable Taxes and Duties amount in case of delivery of Goods/ Installation beyond the original delivery/Installation dates. Therefore, in case of delivery of Goods/Installation beyond the original delivery/ Installation dates, the liability of the Employer shall be limited to the lower of the payable Taxes and Duties amount which may work out either on schedule date or actual date of dispatch of Goods/ Installation

Notwithstanding anything above or elsewhere in the contract, in event that input Tax credit of the GST charged by the supplier, is denied by the tax authorities to the employer for reasons associated with non-compliance/incorrect compliance by the supplier, the employer shall be entitled to recover such amount from the supplier by way of adjustment from any of the subsequent invoices submitted by the supplier to the employer. In addition to the amount of GST, the employer shall be entitled to recover interest and penalty, in case any interest/or penalty is imposed by the tax authorities on the employer for incorrect/wrong availing of input tax credit. The

employer shall determine whether the denial of credit is linked to the non-compliance/indirect compliance of the supplier and the said determination shall be binding on the supplier.

****End of Appendix-1****

PRICE ADJUSTMENT

The Contract price shall remain **FIRM** and **FIXED** and shall not be subject to Price adjustment for the entire duration of the Contract, in accordance with the provisions of the RfP documents.

****End of Appendix-2****

INSURANCE REQUIREMENTS

A) Insurances to be taken out by the Contractor

In accordance with the provisions of GCC Clause 34, 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 as required by any act/law or notification of Government of India for providing services as mentioned in the Bidding Documents.

B) Insurances to be taken out by the Employer

The Employer shall at its expense take out and maintain in effect during the performance of the Contract the following insurances.

Amount	Deductible limits	Parties Insured	From	To
_____ NIL _____				

-- End --

****End of Appendix-3****

TIME SCHEDULE

Time for Completion:

The project would be developed in two parts.

1. **Part I:** Site Surveys, submission of list of required items Minutes of Meet, new procured items quality and warranty certificate documents. Refurbishment, restoration, recommissioning and startup of the Solar power generation plant(s).
2. **Part II:** O&M of Solar power generation plant for the remaining period of the operation from 10 years after date of commissioning.

Part I:

The Contractor shall submit the plan for carrying out site restoration/refurbishment and startup work within 04 days from the date of issuance of LoA. The contractor shall complete the site surveys of all the allotted sites within one week. from the date of intimation of site details to the successful bidder. Further the sites would be handed over to successful bidder in a zone manner. The contractor shall submit the final, revised Electrical Single Line Diagram (SLD), site survey reports required items and project document as per the timelines shown below:

*Contractor to strictly adhere to the timelines mentioned above. In case of any failure to meet the above timelines, a suitable action shall be taken against the contractor for any delay in completion of the restoration, including the right to cancel or termination of contract at EESL's discretion.

Part II:

The date of handover of Solar site (s) to the contractor for restoration of Solar Power Generating System (SPGS) shall be treated as Zero date. The contractor shall submit the detailed restoration execution plan within one week (07 days) from the date of issuance of NTP. Also, execution plan as per Appendix- 7 is to be submitted by successful bidder on weekly basis.

The timelines for Completion of the restoration, refurbishment start up Works is 90 days from the Zero date.

Timelines for Scope of work in Days

S. No.	Stage	Reference
1	Date of Site handover and restoration	Zero
2	The contractor shall submit the detailed execution plan (MS Projects/PERT/GANTT chart etc.)	D+7 days
3	Manpower allotment at sites	D+11day
4	Supply of major components/equipment like spares parts for SMB, Cables, connectors, vacuum circuit breaker, transformer oil, gaskets, BoP component spares, consumables etc.	D+41days
5	Replacement of defective components, Testing and recommissioning of all major equipment including, HV switchgear, Inverters / PCU, Transformers etc.	D+55days
6	Recommissioning and startup of Plant (SPGS) along with Completion of Facilities in line with Technical/Functional/Performance Requirement stated under this Tender Document	D+90 days

Plant Performance will be considered as per Clause 2.5 Operational Acceptance and same shall be done only after recommissioning of Plant & Completion of all associated infrastructure as mentioned in Annexure II.

****End of Appendix-4****

LIST OF APPROVED SUBCONTRACTORS

The following Subcontractors/Sub-Implementing Partners are approved for carrying out the item of the facilities indicated. Where more than one Subcontractor is listed, the Contractor is free to choose between them, but it must notify the Employer of its choice in good time prior to appointing any selected Subcontractor. In accordance with GCC Sub-Clause 19, the Contractor is free to submit proposals for Subcontractors for additional items from time to time. No Subcontracts shall be placed with any such Subcontractors for additional items until the Subcontractors have been approved in writing by the Employer and their names have been added to this list of Approved Subcontractors.

Item of Facilities	Approved Subcontractors	Nationality

Further, erection portion of the contract shall not be subcontracted without the prior approval of the Employer. However, such approval shall not be necessary for engaging labor.

****End of Appendix-5****

SCOPE OF WORKS AND SUPPLY BY THE EMPLOYER

The following personnel, facilities, works and supplies will be provided/supplied by the Employer.

Unless otherwise indicated, all personnel, facilities, works and supplies will be provided free of charge to the Contractor.

Personnel Charge to Contractor – None

-----NIL-----

Facilities Charge to Contractor - None

-----NIL-----

Electricity and Water Charge to Contractor – None

-----NIL-----

Works Charge to Contractor - None

-----NIL-----

Supplies Charge to Contractor – None

-----NIL-----

****End of Appendix-6****

LIST OF DOCUMENTS FOR APPROVAL OR REVIEW

Pursuant to GCC Sub-Clause 20.3, the Contractor shall prepare, or cause its Subcontractor to prepare, and present to the Project Manager the following documents for:

A. Approval

1.

2.

3.

B. Review

1.

2.

3.

Note:

Bidder shall furnish the exhaustive list, which shall be discussed and finalized for incorporation into the Contract Agreement.

****End of Appendix-7****

GUARANTEES, LIQUIDATED DAMAGES FOR NON - PERFORMANCE

As applicable as per Technical Specs

CONTRACT CO-ORDINATION PROCEDURE

To be provided at the time of signing of Contract Agreement.

Important Instruction for participation in the e-Bidding:

Interested bidders have to register themselves on the portal www.tenderwizard.com/EESL through **M/s. Antares Systems Limited** (Application Service Provider (ASP) appointed by EESL) to participate in the bidding under this invitation for bids. It shall be the sole responsibility of the interested bidders to get themselves registered at the aforesaid portal for which they are required to contact M/s. Antares Systems Limited at following contact details to complete the registration formalities:

Bidders are requested to visit "e-Tendering" section at EESL website, www.eeslindia.org for instructions and registration on E-tendering portal.

Steps for Registration on EESL's E-Procurement Portal

- (i) Open portal by entering URL www.tenderwizard.com/EESL.
- (ii) Download and read Registration Manual from EESL's e-tendering portal www.tenderwizard.com/EESL
- (iii) Click on 'REGISTER' link for new registration.
- (iv) Fill all mandatory fields and click on 'CREATE PROFILE' button.
- (v) On the next page, upload registration related documents and proceed further.
- (vi) User ID and system-generated password will be displayed. Login and mandatorily change the system-generated password.
- (vii) Login with your new password and Register your class-III Signing and Encryption Digital Signature Certificate (DSC).
- (viii) Also read the instructions given under Registration Manual available at home page of EESL website www.tenderwizard.com/EESL.

Note: Online registration shall be done on e-tendering website, i.e., www.tenderwizard.com/EESL & in general, activation of registration may take 24 hours. It is sole responsibility of the bidder to register in advance.

There is no fee for Registration on EESL E-procurement Portal.

A. Digital Signature Certificate:

It is mandatory for all the bidders to have class-III Digital Signature Certificate (DSC) with signing and Encryption certificate (in the name of person who will sign the BID) from any of the licensed Certifying Agency (Bidders can see the list of licensed CAs from the link www.cca.gov.in) to participate in e-tendering of EESL.

B. EESL Global Support Telephones and e-mail id

Contact Details: +91-80-45811365, +91-80-45982100, +91-9560095958
mohitkumar@etenderwizard.com, krishna.a@etenderwizard.com

For proper uploading of the bids on the portal namely www.tenderwizard.com/EESL (hereinafter referred to as the 'portal'), it shall be the sole responsibility of the bidders to apprise themselves adequately regarding all the relevant procedures and provisions as detailed at the portal as well as by contacting from **M/s. Antares Systems Limited**

directly, as and when required, for which contact details are mentioned above. The Employer in no case shall be responsible for any issues related to timely or properly uploading/submission of the bid in accordance with the relevant provisions of Section 2 – ITB of the Bidding Documents.

Tender Conditions applicable for MSE and Start-ups

In case MSE bidders are exempted from submission of Bidding Document fee & Bid Security as per Clause No 1.4 & 2.4 of ITB Section-2, respectively, then bidder has to submit copy of valid 'Udyam Registration Certificate' in Envelop-1 for the purpose of Evaluation. **Micro and Small Enterprises (MSEs) registered with Udyam Registration Portal as specified by Ministry of Micro, Small and Medium Enterprises are exempted from submission of fee towards the cost of Bidding Documents and Bid Security/EMD as per the Provisions of the Public Procurement Policy for Micro and Small Enterprises (MSEs) order 2012, Notification dated 01/06/2020 and 26/06/2020 read in conjunction with related notifications issued from time to time for such enterprises. Such registration should be prior to deadline for submission of Bids.**

1. For claiming the above exemption for Start-ups, a valid certificate of Start-up recognized by 'Department of Industrial Policy & Promotion (DIPP)' along with Business eligibility certificate or any other document issued by Govt/Recognized institute is required in support of product/ service item being tendered.
2. **Purchase Preference to MSEs:** Subject to meeting terms and conditions stated in the tender document including but not limiting to prequalification criteria, 25% of the total quantity of the tender is earmarked for MSEs registered with above mentioned agencies/bodies for the tendered item. Out of the 25% target of annual procurement from micro and small enterprises 4% & 3% shall be earmarked for procurement from micro and small enterprises owned by Scheduled Caste (SC) & Scheduled Tribe (ST) entrepreneurs & Women entrepreneurs respectively. In the event of failure of such MSEs to participate in the tender process or meet the tender requirements and L1 price 4% & 3% sub targets so earmarked shall be met from other MSEs.

Type of tender	Price quoted by MSE	How the tender shall be finalized
Can be split	L1	Full Order on MSE subject to tender evaluation condition
Can be split	Not L1 but within L1+15%	25% order on MSE subject to matching L1 price
Cannot be split	L1	Full Order on MSE
Cannot be split	Not L1 but within L1+15%	Full Order on MSE subject to matching L1 price

- 2.1 Where the tendered quantity can be split:** In a bid, if prices quoted by participating Micro and Small Enterprises (MSEs) fall within the price band of L1+15%, such MSE shall also be allowed to supply 25% of the total tendered quantity by bringing down their prices to L1 prices. In case of more than one

such MSE (L1+15%) the supply shall be shared proportionately (to tendered quantity), subject to the condition that such MSEs match the L1 price. Further, 4% out of above 25% shall be from MSEs owned by SC/ST entrepreneurs & 3% out of above shall be from MSEs owned by women entrepreneurs. This quota is to be transferred to the general category MSEs in case of NON-availability of MSEs owned by SC/ ST entrepreneurs & Women entrepreneurs respectively.

2.2 Where the tendered quantity cannot be split/divide: In case of tender item is non-split able or non-dividable, etc.: MSE quoting price within price band L1+15% may be awarded for full/complete supply of total tendered value to MSE, considering spirit of Public Procurement Policy, 2012 for enhancing the Govt. Procurement from MSE.

2.3 MSE owned by SC/ST is defined as:

- a. In case of proprietary MSE, proprietor(s) shall be SC /ST
- b. In case of partnership MSE, The SC/ST partners shall be holding at least 51% shares in the enterprise.
- c. In case of Private Limited Companies, at least 51% share shall be held by SC/ST promoters.

2.4 MSE owned by Women is defined as:

- a. In case of proprietary MSE, proprietor(s) shall be Women
- b. In case of partnership MSE, The Women partners shall be holding at least 51% shares in the enterprise.
- c. In case of Private Limited Companies, at least 51% share shall be held by Women promoters.

If bidder does not provide appropriate document or any evidence to substantiate the above, then it will be presumed that he does not qualify for any preference admissible under the Public Procurement Policy, 2012.

3. For relaxing the PQ/QR conditions regarding prior turnover and prior experience for MSEs and start-ups, the prior turnover and prior experience will be as under subject to their meeting of quality and technical specifications: -

Annexure-II

Category of tender	Past experience	Average Turn Over	Award Philosophy
Can be split as per tender conditions	25% of total experience as required for general bidders	25% of total ATO as required for general bidders	<p>(a) If MSE is L1, order will be given as per split criteria in order of ranking as defined in the tender document which could be greater than 25%. The treatment for award will be same for MSE as general bidder.</p> <p>(b) If MSE is other than L1 bidder, then the split criteria as per tender condition will be followed subject to price matching with L1 bidder in order of ranking treating the MSE bidder(s) at par with the general bidder. In such event also, order(s) going to MSE bidder(s) could be greater than 25%. If order(s) going to MSE bidder(s) is/are less than 25% after the matching of rates with L1 bidder by adopting the tender split criteria, then the clause of purchase preference for award to MSE bidder(s) up to 25% of the tendered quantity subject to matching L1 rates will be followed to make the total quantity going to MSE bidder(s) @ 25%; provided the</p>

Annexure-II

			<p>rates are within L1+15% range. In such cases, remaining quantity after award of 25% to MSE bidder(s) shall be distributed amongst other eligible bidders in the pre-declared split ratio. If order(s) going to MSE bidder(s) is less than 25% and also MSE bidder(s) not meeting the condition of purchase preference clause i.e. quoted rates not within L1+15% range, then the order(s) quantity going to MSE bidder(s) in such cases shall be less than 25% which will be in line with the tender conditions.</p> <p>(c) If MSE is in the range of L1+15% and not getting the order after splitting and award is going to all non MSE bidder(s), then in such event 25% will be awarded to MSE bidder(s) who fall in the range of L1+15% subject to price matching and remaining 75% will be awarded as per the tender conditions to general bidders subject to matching L1 rates.</p> <p>(d) If after splitting MSE</p>
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			<p>bidder(s) are getting order for more than or equal to 25%, then other MSE bidder(s) will not be awarded any work under purchase preference clause even if they fall in the range of L1+15%. However, they will be considered for award of work as any other general bidder as per tender conditions subject to matching of rates in order of ranking.</p> <p>(e) If MSE bidder is a single resultant vendor, then the quantity that would be considered for award to such bidder will be as defined in the pre-declared split ratio to L-1 bidder in the tender condition; provided the quoted rates of the bidder are found reasonable by EESL. However, EESL reserves the right to award 100% quantity to such MSE bidder provided the MSE bidder has got ATO which is corresponding to the cumulative applicability for 100% order value. In case, where ATO of the MSE bidder is less than what</p>
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Annexure-II

			<p>is required for 100% cumulative order value, then work may be awarded to such MSE bidder in proportion to the ATO. For exp: If ATO of MSE bidder is 56% of the cumulative ATO requirement of 100% order value, then maximum 56% work may be awarded to the MSE bidder. However, in such case EESL reserves the right to award appropriate quantity based on the existing requirement and such decision will be taken by EESL which will be binding on the bidder. EESL may take consent from the bidder for award of such quantity (which is over and above the quantity to be allotted to L-1 bidder as per pre-declared split ratio) before award.</p>
Cannot be split as per tender conditions	25% of total experience as required for general bidders	85% of total ATO as required for general bidders	<p>(a) If MSE is L1, 100% order will be given to MSE.</p> <p>(b) If MSE is within the range of L1 + 15%, 100% order will be given to MSE subject to price matching with L1 bidder.</p> <p>(c) If MSE is not L1 and not</p>

			in range of L1 + 15%, no work will be given to MSE.
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4. Start-ups are also covered under 25% purchase preference from procurement basket of MSEs as defined in point (3) above, provided that participating Start-ups submit all the relevant documents pertaining to MSEs as defined in point (1) above and documents for start-ups as defined in point (2) above.

whereas, startup means an entity, incorporated or registered in India:

- i Not prior to seven years, however for Biotechnology Startups not prior to ten years,
- ii With annual turnover not exceeding INR 25 crore in any preceding financial year, and
- iii Working towards innovation, development or improvement of products or processes or services, or if it is a scalable business model with a high potential of employment generation or wealth creation
- iv Provided that such entity is not formed by splitting up, or reconstruction, of a business already in existence. Provided also that an entity shall cease to be a Startup if its turnover for the previous financial years has exceeded INR 25 crore or it has completed 7 years and for biotechnology startups 10 years from the date of incorporation/ registration.

Note: For Start-up firms, Gazette Notifications dated: 17-Feb-2016, G.S.R. 180 (E), and subsequently issued notifications will be considered.

NOTES: -

- a) In case where tender quantity can be split and MSE bidder is already getting order more than 25% of the tender value, no additional purchase preference is required to be given in that tender.
- b) In case MSE bidder is already getting order for less than 25% of the tender quantity, purchase preference to this and other MSE vendor (together) shall be given only up to the differential quantity to make total as 25% to MSE vendor subject to L1+15% and price matching.
- c) Public Procurement policy is meant for procurement of goods produced and services rendered by Micro and Small Enterprises. The preference to MSEs is not applicable for works contracts where supply of goods not produced by MSEs is also involved.
- d) The eligibility of MSE bidders for any other benefits/relaxations for MSE bidders indicated in Tender documents shall be as indicated in the above "Tender conditions for Benefits/Preference for Micro & Small Enterprises

(MSEs).”

- e) If a bidder submits EMD/ bid security fees and also MSE certificate along with the offer, then the bidder will be treated as general bidder and no relaxation will be given to such bidders pertaining to MSE's.
- f) The registration certificate must be valid as on bid closing date of the tender. The bidder shall ensure validity of certificate in case bid closing date is extended. The MSEs who have applied for registration or renewal of registration with any of the above agencies/bodies but have not obtained the valid certificate till the end date of bid submission, are not eligible for any exemption/preference and will not be considered. Such offers will be treated as offers received without EMD and out rightly rejected.
- g) Traders, resellers, distributors and agents will not be considered for availing benefits under PP Policy 2012 for MSEs.

(Price-Bid)

(For Reference Purpose Only. Please fill the prices in excel sheet available at e-portal only).

Name of work: “Refurbishment & restoration for the revival of the solar plant with Operation and Maintenance for the remaining period up to 10 years of operation from the date of commissioning of the 48 sites of distributed solar plant of cumulative capacity 51.89 MWp in Maharashtra”.

[To be Filled Online Only]

Package I/ Zone I:

S. No.	Description of Work	No. of Sites	Cumulative Capacity (MW)	Base Price exclusive of GST in Rs.
(1)	(2)	(3)	(4)	(5)
1	Part -A: Bidder shall quote for Restoration & Refurbishment for the revival of the plant.	10	7.16	₹ 51,20,000.00
2	Part B: Bidder shall quote price for the individual items as per BoQ per site, Part B will be independent of the health of the plant.			₹ 15,60,000.00

3	Part -C: Bidder shall quote for the comprehensive operation and maintenance of the plants for remaining period from 10 years of operation from the date of commissioning on per month basis.			₹ 2,24,00,000.00
4	Total [A]	10	7.16	₹ 2,90,80,000.00
5	%age Quoted BELOW Base Price TOTAL [A] under Column (5): (-) %age=			To be Filled Online
	%age Quoted ABOVE Base Price TOTAL [A] under Column (5): (+) %age=			To be Filled Online
6	Absolute amount quoted BELOW Base Price			0.00
7	FINAL OFFERED BID PRICE			₹ 2,90,80,000.00
	Rs. In Words			

Package II / Zone II:

S. No.	Description of Work	No. of Sites	Cumulative Capacity (MW)	Base Price exclusive of GST in Rs.
(1)	(2)	(3)	(4)	(5)
1	Part -A: Bidder shall quote for Restoration & Refurbishment for the revival of the plant.	8	10.50	₹ 49,50,000.00
2	Part B: Bidder shall quote price for the individual items as per BoQ per site, Part B will be independent of the health of the plant.			₹ 25,00,000.00
3	Part -C: Bidder shall quote for the comprehensive operation and maintenance of the plants for remaining period from 10 years of operation from the date of commissioning on per month basis.			₹ 3,43,00,000.00
4	Total [A]	8	10.50	₹ 4,17,50,000.00
5	%age Quoted BELOW Base Price TOTAL [A] under Column (5): (-) %age=			To be Filled Online
	%age Quoted ABOVE Base Price TOTAL [A] under Column (5): (+) %age=			To be Filled Online
6	Absolute amount quoted BELOW Base Price			0.00
7	FINAL OFFERED BID PRICE			₹ 4,17,50,000.00
	Rs. In Words			

Package III / Zone III:

S. No.	Description of Work	No. of Sites	Cumulative Capacity (MW)	Base Price exclusive of GST in Rs.
(1)	(2)	(3)	(4)	(5)
1	Part -A: Bidder shall quote for Restoration & Refurbishment for the revival of the plant.	9	11.04	₹ 43,80,000.00
2	Part B: Bidder shall quote price for the individual items as per BoQ per site, Part B will be independent of the health of the plant.			₹ 19,40,000.00
3	Part -C: Bidder shall quote for the comprehensive operation and maintenance of the plants for remaining period from 10 years of operation from the date of commissioning on per month basis.			₹ 3,54,00,000.00
4	Total [A]	9	11.04	₹ 4,17,20,000.00
5	%age Quoted BELOW Base Price TOTAL [A] under Column (5): (-) %age=			To be Filled Online
	%age Quoted ABOVE Base Price TOTAL [A] under Column (5): (+) %age=			To be Filled Online
6	Absolute amount quoted BELOW Base Price			0.00
7	FINAL OFFERED BID PRICE			₹ 4,17,20,000.00
	Rs. In Words			

Package IV / Zone IV:

S. No.	Description of Work	No. of Sites	Cumulative Capacity (MW)	Base Price exclusive of GST in Rs.
(1)	(2)	(3)	(4)	(5)
1	Part -A: Bidder shall quote for Restoration & Refurbishment for the revival of the plant.	6	11.62	₹ 29,30,000.00
2	Part B: Bidder shall quote price for the individual items as per BoQ per site, Part B will be independent of the health of the plant.			₹ 23,00,000.00
3	Part -C: Bidder shall quote for the comprehensive operation and maintenance of the plants for remaining period from 10 years of operation from the date of commissioning on per month basis.			₹ 4,22,00,000.00
4	Total [A]	6	11.62	₹ 4,74,30,000.00
5	%age Quoted BELOW Base Price TOTAL [A] under Column (5): (-) %age=			To be Filled Online
	%age Quoted ABOVE Base Price TOTAL [A] under Column (5): (+) %age=			To be Filled Online
6	Absolute amount quoted BELOW Base Price			0.00
7	FINAL OFFERED BID PRICE			₹ 4,74,30,000.00
	Rs. In Words:			

Package V / Zone V:

S. No.	Description of Work	No. of Sites	Cumulative Capacity (MW)	Base Price exclusive of GST in Rs.
(1)	(2)	(3)	(4)	(5)
1	Part -A: Bidder shall quote for Restoration & Refurbishment for the revival of the plant.	15	11.57	₹ 1,13,50,000.00
2	Part B: Bidder shall quote price for the individual items as per BoQ per site, Part B will be independent of the health of the plant.			₹ 26,20,000.00
3	Part -C: Bidder shall quote for the comprehensive operation and maintenance of the plants for remaining period from 10 years of operation from the date of commissioning on per month basis.			₹ 3,55,00,000.00
4	Total [A]	15	11.57	₹ 4,94,70,000.00
5	%age Quoted BELOW Base Price TOTAL [A] under Column (5): (-) %age=			To be Filled Online
	%age Quoted ABOVE Base Price TOTAL [A] under Column (5): (+) %age=			To be Filled Online
6	Absolute amount quoted BELOW Base Price			0.00
7	FINAL OFFERED BID PRICE			₹ 4,94,70,000.00
	Rs. In Words			

Other terms and conditions: -

1. Bidders shall submit their prices as a percentage above/below the total base price indicated in the Price Bid for different Zone (s) / Package (s).
2. The quoted percentage above/below shall be uniformly applicable to Part A, Part B, and Part C as indicated in the "Price Bid Format" for the respective Zone (s) / Package (s).
3. The bidder should compulsorily quote for all heads in the price-bid format for which separate analysis/ reasonable estimation of all heads should be done by the bidder before quoting the rates in the financial bid. Any contravention may lead to rejection of offer submitted.
4. If there is a discrepancy between words and figures, the amount written in words will prevail.
5. Any other item as required for commissioning the system for reliable and efficient operation to be provided within the quoted price.
6. The above prices are exclusive of GST.
7. Please note that selection of the bidder will be done on the techno-commercially acceptable bid and as per evaluation criteria defined in Part-A (BDS) of Section-4. Bidder should quote for complete scope of work as defined in the RfP documents.
8. Prices will remain firm till the execution of the contract, and nothing shall be payable extra apart from the prices quoted above.

I/We have read all the terms and conditions of the RfP/IFB/NIT and the Annexure(s) thereto and agree to accept and abide by the same in total. The above quotation has been prepared after taking into account all the terms and conditions of the RfP/IFB/NIT.

(SEAL)

Signature of Tenderer or

Their Authorized Representative: _____

Dated:

Name & Address of Tenderer:

Phone No: _____

Fax no.: _____