SECTION – 1
INVITATION FOR BIDS (IFB)

Selection of Execution Partner under Consortium arrangement for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years at Ahmedabad Municipal Corporation.

(SINGLE STAGE TWO ENVELOPE BIDDING)

(Domestic Competitive Bidding under e-procurement)

DATE OF ISSUANCE OF IFB : **26.08.2025**

SPECIFICATION No. **: EESL/06/2025-26/SLNP/AMC/OTE/252608009**

FUNDING : DOMESTIC

1.0 This invitation for bids follows the e-procurement notice for the subject package published on **26/08/2025** on EESL's website and e-procurement portal given at para **5.0** below 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.

2.0 **Ahmedabad Municipal Corporation (AMC) (A Govt. body under administrative control of Govt. of Gujrat**) has floated tender for the **Comprehensive Operation and Maintenance contract of Street Light Poles, SITC of Street Light work and SITC and Implementation of Centralized Smart City Management System (CMS for streetlight) at various places of Ahmedabad city for Five Years.**

Energy Efficiency Services Limited (EESL) (A Joint Venture Company of PSUs of Ministry of Power, Govt. of India)) incorporated under the Companies Act, 1956, having its Office at 1st to 4th Floor, IKON Tower, Film City, Sector 16A, Noida, Uttar Pradesh – 201301 intends to participate in the tender for "**Comprehensive Operation and Maintenance contract of Street Light Poles, SITC of Street Light work and SITC and Implementation of Centralized Smart City Management System (CMS for streetlight) at various places of Ahmedabad city for Five Years**

3.0 EESL, therefore, invites sealed bids from eligible bidders for the following package for this project on Domestic Competitive Bidding basis under secured e-procurement procedure:

Selection of Execution Partner under Consortium arrangement for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years at Ahmedabad Municipal Corporation.

This Invitation for Bids extended through media, website or written communication or by any other means, and issuance of Bidding Documents as per para 5.0 below shall not be construed to mean that the prospective bidders to whom the Invitation for Bids has been extended and/or Bidding Documents have been issued is deemed to be an eligible bidder. The eligibility of the bidders shall be determined as per the provisions of the Bidding Documents. Some of the salient points in that respect are:

a) 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, 1956/2013, 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.

b) Compliance to the provisions of Public Procurement (Preference to Make in India) Order, 2017 (PPP-MII) and its subsequent modifications/amendments, if any.

c) Compliance to 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, issued by Public Procurement Division, Department of Expenditure, Ministry of Finance, Government of India (DoE Order) regarding restriction on Bidders sharing Land Border with India.

d) Non-participation as a bidding company directly; or indirectly through their Subsidiaries, Partnership, Ownership, Individual firm; or Consortium for the Project referred to at S.No. 2 above, if pre-selected for associating with EESL for the purpose of bidding by EESL in the tender process of AMC.

The qualified, lowest evaluated Bidder having requisite capacity and capability to perform the contract for the aforesaid Package as per the provisions of the Bidding Documents shall be pre-selected, for the scope of work contained in the Bidding Documents, for associating with EESL for the purpose of bidding by EESL in the tender process of the AMC for the subject Project and, in case EESL becomes successful Bidder, the successful Bidder(s) for aforesaid mentioned Package will be awarded the Contract for execution of scope of work contained in the Bidding Documents.

The pre-selected bidder shall have to confirm non-participation as a bidding company directly; or indirectly through their Subsidiaries, Partnership, Ownership, Individual firm; or Consortium in the tender stage of the AMC for subject Project.

An MOU shall be signed with the pre-selected Bidder(s) prior to bid submission by EESL to AMC against its tender process. This MOU shall, inter-alia, bind both EESL and the pre-selected Bidder(s) for associating on exclusive basis and maintaining strict confidentiality by the pre-selected Bidder(s) of the prices, terms and conditions. As per the terms of MOU, both the Parties shall be making joint efforts to win the project together.

In case EESL becomes successful Bidder, the successful Bidder(s) for aforesaid Package will be awarded the Contract for execution of scope of work contained in the Bidding Documents.

3.1 *The broad scope shall cover "Comprehensive Operation and Maintenance contract of Street Light Poles, SITC of Street Light work and SITC and Implementation of Centralized Smart City Management System (CMS for streetlight) at various places of Ahmedabad city for Five Years".*

The scope of work is indicative, and the detailed scope of work is given in the Technical Specification (Section-4, Part -C) of the Bidding Documents.

3.2 Total time completion for Work is 60 months out of which the CMS work to be completed within 9 Months of the Work order, Including Integration at ICCC.

3.3 Bidding will be conducted through the **Domestic Competitive Bidding** procedures as per the provisions of ITB/BDS of the Bidding Documents and the contract shall be executed as per the provisions of the Contract. Bidders may note that the Employer has uploaded its 'Guidelines, Policy and Procedure for Procurement of Goods, Works and Non-Consulting Services document along with its Modification/Amendment on "Ineligibility of Firms for Participation in the Bidding Process" and on "Black-Listing of Firms / Banning of Business" **and its updates** on EESL's website referred to at para 9.0 below. 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 document or have any claim on the Employer on the basis of the same. The respective rights of the Employer and the Bidder/Contractor shall be governed by the Bidding Documents/Contract signed between the Employer and the Contractor for the package(s). The provisions of the Bidding Documents shall always prevail over that of 'Guidelines, Policy and Procedure for Procurement of Goods, Works and Non-Consulting Services document in case of contradiction.

4.0 The detailed Qualifying Requirements (QR) for the subject package is attached at given in the Eligibility and Qualification Requirements (Section-4, Part -B) to this Bidding document. Bidders are advised to check their prima-facie eligibility/qualification requirement as per the specified QR before participating.

5.0 The complete Bidding Documents available for downloading from **26/08/2025** onwards on e-procurement portal *www.tenderwizard.com/EESL* under **NIT Bid Document No: EESL/06/2025-26/SLNP/AMC/OTE/252608009**.

6.0 Interested bidders have to necessarily register themselves on the portal *www.tenderwizard.com/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.

The said registration shall be free of cost. On completion of registration process, the registering bidders will be provided with User ID and Log-In password.

Kindly note that to submit the bids electronically, bidders must 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.

Interested bidders may obtain further information regarding this IFB from the **Additional General Manager / Manager,** EESL at the address given at para 9.0 below from 15:00 hours to 17:00 hours on all working days.

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 EESL, as and when required, for which contact details are mentioned above below. The Employer in no case shall be responsible for any issues related to the timely or proper uploading/submission of the bid in accordance with the relevant provisions of Section II – ITB of the Bidding Documents.

7.0 A Single Stage Two Envelope Bidding Procedure will be adopted and will proceed on e-procurement portal *www.tenderwizard.com/EESL* under **NIT Bid Document No: EESL/06/2025-26/SLNP/AMC/OTE/252608009** as detailed in the Bidding Documents.

7.1 Soft Copy Part of the Bids must be uploaded under Single Stage Two Envelope Bidding Procedure on the portal at or before **11:00 hours** on **03/09/2025** as per the provisions of the Bidding Documents. The e-Procurement system would not allow any late submission of bids through the portal after due date & time as specified.

Hard Copy Part of the Bids must be submitted under Single Stage Two Envelope Bidding Procedure at the address given in BDS at or before **11:00 hours** on **03/09/2025** as per the provisions of the Bidding Documents. 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 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.

The First Envelope Bids (Techno Commercial part) shall be opened and thereafter pursuant to evaluation of First Envelope Bids, the Second Envelope Bids (Price part) of Techno-Commercially responsive and qualified bidders having requisite Capacity & Capability to execute the contract in the event of award, will also be opened privately, as per the provisions of the Bidding Documents.

8.0 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.

9.0 All correspondence with regard to the above shall be to the following address.

(By Post/In Person)
Additional General Manager
Energy Efficiency Services Limited,
IKON Tower, 2nd Floor, Film city, FC- 24C, Noida, Sector 16A, UP – 201301
Telephone Nos.: 0120-6541601
Email: amittal@eesl.co.in
pkbansal@eesl.co.in

For more information on EESL, visit our site at: *www.tenderwizard.com/EESL*

S No.	Details	
1.	Date of issuance of IFB	**26.08.2025**
2.	NIT/Bid Document No.:	**NIT Bid Document No: EESL/06/2025-26/SLNP/AMC/OTE/252608009**
3.	Funding	Domestic
4.	Name of the Employer/ Buyer/Owner	Energy Efficiency Services Limited | A JV of PSUs under the Ministry of Power Corporate Office at: IKON Tower, 2nd Floor, Film city, FC-24C, Noida, Sector 16A, UP – 201301 EESL, invites sealed bids from eligible bidders for the subject tender for scope, inter-alia covers "**Selection of Execution Partner under Consortium arrangement for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years at Ahmedabad Municipal Corporation"** on domestic competitive bidding basis under secured e-procurement procedure.
5.	Publication & e-procurement portal	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. (*Refer **Annexure-I** to this Section for Important Instruction for participation in the e-Bidding*).
7.	Bidding Procedure	Single Stage Two Envelope Bidding (Domestic Competitive Bidding under e-procurement)
8.	Brief Scope of Work	**1.** The brief scope of work essentially consists of following: **"Selection of Execution Partner under Consortium arrangement for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years at Ahmedabad Municipal Corporation"** as per Technical Specifications and Scope of work of this RfP. (*The detailed scope of work is given in the Technical Specification (**Part-C of Section-4**) of the Bidding Documents*).

<table>
<tr><th>S No.</th><th colspan="2">Details</th></tr>
<tr><td>9.</td><td>Completion Period/Delivery Schedule</td><td>
<table>
<tr><th>Sl. No.</th><th>Activity</th><th>Completion period/Delivery Schedule</th></tr>
<tr><td>1.</td><td>Selection of Execution Partner under Consortium arrangement for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years at Ahmedabad Municipal Corporation</td><td>Total time completion for Work is 60 months out of which the CMS work to be completed within 9 Months of the Work order, Including Integration at ICCC.</td></tr>
</table>
Note: The Prices under the contract shall be valid till 60 Months from the date of issuance of Notification of Award (NoA) by EESL and shall not be subject to any variation during the currency of the contract. Purchase/Release order shall be issued by EESL from time to time in the event of emergence of requirements. However, bidder is required to complete the scope of work as per terms & conditions of the bidding documents for the issued Release/Purchase Order
For Detailed Terms and condition related to procedure of allocation of work and supply/delivery schedule kindly refer Section-4 Part C (Scope of work & Technical Specifications).
</td></tr>
<tr><td>10.</td><td>Qualifying Requirements (QR)</td><td>The detailed Qualifying Requirements (QR) are given at Section-4 Part-B (QR).</td></tr>
<tr><td>11.</td><td>Bidding Documents</td><td>The complete RfP/ Bidding Documents are available at EESL's e-procurement portal www.tenderwizard.com/EESL.

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</td></tr>
</table>

<table>
<tr><th>S No.</th><th colspan="3">Details</th></tr>
<tr><td></td><td></td><td colspan="2">any purpose other than for which they are specifically uploaded.</td></tr>
<tr><td>12.</td><td>Pre-bid meeting</td><td colspan="2">Date: 28.08.2025 Time: 1100 Hrs. (IST)
Place:
Kind Attn.: Additional General Manager
Energy Efficiency Services Limited,
IKON Tower, 2nd Floor, Film city, FC- 24C, Noida, Sector 16A, UP – 201301
Telephone Nos.: 0120-6541601
Email: amittal@eesl.co.in
pkbansal@eesl.co.in

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 1 day of floating of inquiry.

<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>
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<table>
<tr><th>S No.</th><th colspan="2">Details</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td rowspan="3">2.</td><td>Section No.</td><td></td><td></td><td></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 rowspan="3">3.</td><td>Section No.</td><td></td><td></td><td></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>
</table>
Note: No pre-bid queries were entertained after the pre-bid meeting due to urgency.

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.
</td></tr>
<tr><td>13.</td><td>Deadline for submission of bids</td><td>Soft Copy Part of the Bids: 03.09.2025 up to 1100 Hrs. (IST)

Hard Copy Part of the Bids: 03.09.2025 up to 1100 Hrs. (IST)</td></tr>
<tr><td>14.</td><td>Bid Opening:</td><td>Envelope-1 (First Envelope) (Comprising Packet-I and Packet-II): Date: 03.09.2025 Time: 1130 Hrs. (IST)

Envelope-2 (Second Envelope) (Comprising Price Bid): Schedule shall be opened privately after evaluation of First Envelope bids in accordance with ITB.</td></tr>
<tr><td>15.</td><td>Bidding Document/Tender fee</td><td>Rs. 25,000/- (Non-refundable and non-adjustable)

Document/Tender Fee must be submitted either in physical form or paid online (for details refer ITB 1.4, Section-2).</td></tr>
<tr><td>16.</td><td>Bid Security/EMD</td><td>Bidders have to submit EMD of Rs. 10,50,00,000.00 (Rupees Ten Crores Fifty Lakhs Only)
Bid security / EMD must be submitted either in physical form or paid online (for details refer ITB 2.4, Section-2).</td></tr>
</table>

S No.	Details	
17.	Address for correspondence	**Additional General Manager** Energy Efficiency Services Limited IKON Tower, 2nd Floor, Film city, FC- 24C, Noida, Sector 16A, UP – 201301 Telephone Nos.: 0120-6541601 Email: amittal@eesl.co.in; pkbansal@eesl.co.in
18.	Contract Validity	Total time completion for Work is 60 months out of which the CMS work to be completed within 9 Months of the Work order, Including Integration at ICCC. Purchase/Release order shall be issued by EESL from time to time in the event of emergence of requirement. However, bidder is required to complete the scope of work as per terms & conditions of the bidding documents for the issued Release/Purchase Order

Pre bid meeting Link:

https://ind01.safelinks.protection.outlook.com/ap/t-59584e83/?url=https%3A%2F%2Fteams.microsoft.com%2Fl%2Fmeetup-join%2F19%253ameeting_N2RjZWZlMjMtMTE0OS00YWY2LWIxMDEtODk5NWUxOWJkN2U3%2540thread.v2%2F0%3Fcontext%3D%257b%2522Tid%2522%253a%25224a993be3-3ce0-49c4-96e9-23324992b1dd%2522%252c%2522Oid%2522%253a%2522b2944552-e7f4-49be-8182-bb776e876bf0%2522%257d&data=05%7C02%7Cumohan%40eesl.co.in%7Cd37c28818a734d9fe2a508dde4a1f947%7C4a993be33ce049c496e923324992b1dd%7C0%7C0%7C638918106504954956%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=j0BvkN5%2BjFNklkcE0fHWJxjzNixvrP8UN70I3yqQP6o%3D&reserved=0

Mode: Microsoft Teams
Meeting ID: 462 479 373 054 5
Passcode: MP7k9TW2

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

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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;

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

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

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

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.

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:

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.

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

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.

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

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:

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)

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.

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 though 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:

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) ---

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.

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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 Con tractor 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 Article1.2 (Order of Precedence) of the Contract Agreement all documents forming part of the Contract (and all parts thereof) are intended to be correlative, complementary and mutually explanatory. 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 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.

3.7 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, 1996and 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 Con-tract. 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 par-ties 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 other-wise discharged expressly in writing by the EESL. Further, the provisions pertaining to long term availability of spares shall be ex-tended 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, expect 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 Clause24. 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 Clause16.

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 con-sent, which shall not be unreasonably withheld. If the EESL consents thereto, the Implementing Partner shall appoint some other per-son 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 ex-ecution 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 Con-tractor 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 ex-tended 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, whereever 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-Clause21.2.2 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 statuary 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 o 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 hall 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 EES Larising 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.

31.5 In 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

32.1 The 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-Clause38.3 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-Clause33.1, 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 Clause33 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 inthe 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 Con-tractor.

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 willin 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-Clause35.1, 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 Majure

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.

39.2Changes 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.

39.3Changes 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

42.1Termination 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.

42.2Termination 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.

42.3Notice 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, orany 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 ill 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)

<table>
<tr><th>Sl. No.</th><th>ITB Clause Ref. No.</th><th>Bid Data Details</th></tr>
<tr><td>1.</td><td>ITB 1.1.1</td><td>
Supplement ITB 1.1.1 with the following:

The Reference number of Invitation for Bid (IFB) is NIT Bid Document No: EESL/06/2025-26/SLNP/AMC/OTE/252608009

The Purchaser/Employer is Energy Efficiency Services Limited

The No. and Identification of Lots/Package/Schedule comprising this Open Competitive bidding (OCB) is as per the following Details:

<table>
<tr><th>Sl. No</th><th>Lot No/Package/Schedule</th><th>Total Quantity Nos.</th></tr>
<tr><td>1</td><td>Selection of Execution Partner under Consortium arrangement for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years at Ahmedabad Municipal Corporation</td><td>2,07,163</td></tr>
</table>

The Employer is:

Energy Efficiency Services Limited,
IKON Tower, 2nd Floor, Film city, FC- 24C, Noida, Sector 16A, UP – 201301
Telephone Nos.: 0120-6541601
Email: amittal@eesl.co.in; pkbansal@eesl.co.in

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.
</td></tr>
</table>

		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. 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	**Supplementing clause ITB 1.1.2 as per the following:** 1. Eligible Bidders: 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. 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. For the aforesaid purpose, (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. (ii) "Bidder from a country which shares a land border with India" for this purpose means: a. An entity incorporated, established or registered in such a country; or b. A subsidiary of an entity incorporated, established or registered in such a country; or c. An entity substantially controlled through entities incorporated, established or registered in such a country; or d. An entity whose beneficial owner is situated in such a country; or e. An Indian (or other) agent of such an entity; or f. A natural person who is a citizen of such a country; or

		g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above (iii) The beneficial owner for the purpose of (ii) (d) above will be under: 1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has controlling ownership interests or who exercises control through other means. Explanation- 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. 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. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

		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. **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.** Further, the firm has to be a **'Class-I local supplier'** as defined under Public Procurement (Preference to Make in India) Order, 2017 issued by Department for promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, Government of India vide order dated 15/06/2017, its revision dated 16/09/2020 (PPP-MII Order) read in conjunction with 'Public Procurement (Preference to Make in India) to provide for Purchase Preference (linked with local content) in respect of Power Sector' order dated 16/11/2021 issued by Ministry of Power (MoP Order) and subsequent modifications/amendments if any. **Firms who are not 'Class-I local supplier' shall not be eligible to bid.** **Presently, the local content requirement to categorize a supplier as 'Class-I local supplier' is minimum 60%.** 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. 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 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'

<table>
<tr><td></td><td></td><td>of a country shall have the same meaning as under the FDI Policy of DPIIT as amended from time to time.</td></tr>
<tr><td>3.</td><td>ITB 1.2</td><td>Supplementing ITB 1.2 with the following:

Address:
Kind Attn.: AGM (Contracts)
Energy Efficiency Services Limited,
IKON Tower, 2nd Floor, Film city, FC- 24C, Noida, Sector 16A, UP – 201301
Telephone Nos.: 0120-6541601
Email: amittal@eesl.co.in; pkbansal@eesl.co.in

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.
However, a query may be forwarded to EESL in the following format within 1 day of floating of inquiry.

<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.
Page No.
Para No/ Clause No.</td><td>Description as Per RFP</td><td>Queries/ Clarification of the bidder</td><td>Remarks</td></tr>
<tr><td rowspan="3">1.</td><td>Section No.
Page No.
Para No/ Clause No.</td><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td></tr>
<tr><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td rowspan="3">2.</td><td>Section No.
Page No.
Para No/ Clause No.</td><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td></tr>
<tr><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td rowspan="3">3.</td><td>Section No.
Page No.
Para No/ Clause No.</td><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td></tr>
</table>
</td></tr>
</table>

4.	ITB 1.4	Supplementing ITB 1.4 with the following: 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. Bid Fee may also be submitted online through RTGS. The detail of RTGS is as mentioned below:

Account Name	Account No.	Bank Name	Branch Name	RTGS DETAIL
ENERGY EFFICIENCY SERVICES LIMITED	2164002100012319	Punjab National Bank	LARGE CORPORATE BRI N DELHI	IFSC CODE: PUNB0216400 MICR Code: 110751001 BRANCH: DELHI NEW, L.C.B. ADDRESS: TOLSTOY HOUSE,TOLSTOY MARG, NEW DELHI ,DELHI-110001

		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. **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.**
5.	ITB 2.1	**Replacing ITB 2.1 with the following:** **Bids shall be submitted in Single Stage Two Envelope Bidding Procedure/Process as per the following:** **I. <u>Packet-I of Envelope -1 (Techno-Commercial Bid)</u>** **A. Shall contain Hard Copy of the following documents:**

		1. **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 (*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)* **2.** 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 (*submission of Hard Copy in "Original" for Bid Security and "Copy" of documentary proof in support of exemption)* 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.** 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 instrument of Bid Security/EMD is received by EESL before deadline of submission of techno-commercial bids. 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.

		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. **B. Packet-II of Envelope -1 shall contain Soft Copy (Scanned Copy) of the following documents:** 1. Bid Form as per format attached as **Attachment-1 of Section - 6**, Forms & Procedures. **Note: In case of non-submission of this form, bid will be rejected.** 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. NOTE: i. Bids containing material deviations from or reservation to the terms and conditions and specifications mentioned in the RfP Documents will be treated as non-responsive and will not be considered further. ii. In case of non-submission of this attachment, the bid shall be considered as no deviation bid. 5. Form of acceptance of EESL fraud prevention policy and declaration as per **Attachment- 6 of Section 6**, Forms & Procedure. 6. 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)

		7. NEFT/RTGS Bank details as per **Attachment-8 of Section 6**, Forms & Procedure. 8. 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**. 9. Certificate Regarding Declaration of Local Content as per **Attachment-10 of Section-6** 10. 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**). 11. Details regarding Qualifying Requirement /Eligibility criteria as per **Attachment-12A of Section-6.** 12. CA Certificate to be submitted by the bidder in respect of meeting the technical experience requirement as stipulated in QR of the Bidding document as per **Attachment -12B, 12C and 12D of Section-6.** 13. Certificate regarding non- debarment for false declaration of Local Content as per **Attachment-13 of Section-6.** 14. Certificate regarding non-debarment / blacklisting/disqualification as per **Attachment-14 of Section-6.** **Note:** ***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:*** ***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.*** ***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*** 15. Confirmation regarding furnishing declaration regarding Non-Participation as a Bidding Company or as a Member of any Bidding Consortium as per **Attachment-17 of Section-6.** 16. Techno-commercial bid as indicated in bid document. Documentary evidence regarding bidder's qualifications to perform the contract as required in Qualifying Requirement (QR).

		17. Any other document as considered appropriate. Note: The format for all the aforementioned Attachments is part of Section-6. ***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.*** **II. Envelope-2 (Second Envelope) shall contain Price Bid (to be filled-up in excel format available online on e-portal)** 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. 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.
6.	ITB 2.4	Supplement ITB 2.4 with the following: The value of Bid Security shall be: **Validity of EMD Bank Guarantee (BG):** Bid security/EMD BG / Insurance Surety Bond shall remain valid for a period of 45 days beyond the bid validity period, i.e., up to **17.04.2026.** *(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*). The bid shall be outrightly rejected if the EMD BG doesn't conform to any of the following conditions: (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	Replace ITB 2.15 with the following: Consortium is not allowed for the subject tender
8.	ITB 2.9	To be supplemented with following: **Price to be quoted on firm price Basis.**
9.	ITB 3.2	**Supplementing ITB 3.2 with the following:** 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 Enevlope-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: Address in Person or by Post: Kind Attn.: AGM (Contracts) Energy Efficiency Services Limited, IKON Tower, 2nd Floor, Film city, FC- 24C, Noida, Sector 16A, UP – 201301 Telephone Nos.: 0120-6541601 Email: amittal@eesl.co.in; pkbansal@eesl.co.in **Deadline for submission of Hard copy of Documents** **Date: 03.09.2025** **Time: up to 1100 hours [Indian Standard Time (e-procurement server time)]** **Address for Bid Opening:** M/s Energy Efficiency Services Limited, IKON Tower, 2nd Floor, Film city, FC- 24C, Noida, Sector 16A, UP – 201301 **The deadline for the soft copy part of the bid submission is** **Date: 03.09.2025** **Time: 1100 hrs. [Indian Standard Time (e-procurement server time)].** **Bid submission timelines will be defined as per the e-Procurement server clock only.** **Time and date for Bid Opening – Envelope-I (First Envelope):** **Date: 03.09.2025** **Time: 1130 hours (Indian Standard Time)**

		(a) Bid Title: **"Selection of Execution Partner under Consortium arrangement for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years at Ahmedabad Municipal Corporation**". **NIT Bid Document No: EESL/06/2025-26/SLNP/AMC/OTE/252608009** **<u>Envelope-I (First Envelope)</u>** Do not open before 11:30 hours (Indian Standard Time) on 03.09.2025. 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. 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 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. The e-mail IDs for aforesaid purpose are mentioned below: **Email IDs: <u>amittal@eesl.co.in</u>**
10.	ITB 4.2	Supplement ITB 4.2 with the following: 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): i) Online Payment Acknowledgement towards the Bid Document fee

		(*applicable only in cases where online Payment towards Bid Document fee is paid, prior to deadline for submission of bids*). 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 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. viii) Certificate regarding Declaration of local content **(**as per format in Section 6, Forms & Procedure) 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. x) Declaration regarding ''Restrictions on procurement from a Bidder of a country which shares a land border with India.'' xi) Consortium Agreement (if applicable) xii) Confirmation regarding furnishing declaration regarding Non-Participation as a Bidding Company or as a Member of any Bidding Consortium**.** xiii) CA Certificate in respect of meeting the technical experience

		requirement as stipulated in QR of the Bidding document as per **(**as per format in Section 6, Forms & Procedure) xiv) 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. xv) Any other documents/details/information of historical nature The EESL may give the Bidder not more than 3 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.
11.	ITB 4.5	Supplement ITB 4.5 with the following: 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.
12.	ITB 4.6	Supplementing ITB 4.6 with the following: **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. 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. 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.
13.	ITB 4.9	Supplementing ITB 4.9 with the following: 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: I. Letter of Bid (Bid Form). II. Attachment-5 (Deviation Statement) III. Price Schedules IV. Technical Documents V. Any other part of the bid 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 major inconsistency amongst the above documents of the bid will be interpreted against the bidder.
14.	ITB 4.12	**New Clause Added as:** **Evaluation Criteria-** a) The bids shall be evaluated as per RFP Terms & Conditions. b) Bidders shall submit percentage discount on the price indicated in the Price Bid considering the scope of work, terms and conditions indicated in the RfP. c) 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. d) The tender items are non-splitable, and only single bidder would be selected for entire package. e) The said evaluation criteria shall be read in conjunction with preference to MSEs and startups as per Annexure-II of the Bidding documents. f) The prices will remain firm till the duration of the contract, and nothing shall be payable extra apart from the prices quoted.

		g) Bidder to take cognizance of the above while submitting their bid h) 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 Section-4 (Part-B QR) of the Bidding Documents, would be considered for award.
15.	ITB 5.9	New Clause ITB 5.9 Added As **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.

----- 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.	Bidder should be a Single Entity means a limited company (as defined in the Companies Act, 1956 and any amendment thereof) OR A registered partnership firm (registered under section 59 of the Partnership Act, 1932 and any amendment thereof) OR A limited liability partnership (under the Limited Liability Partnership Act, 2008 and any amendment thereof) OR Proprietorship firm **(Consortium/JV is allowed in the tender. However, JV/Consortium shall not be of more than 3 companies. The conditions of JV / Consortium are appended to the QR).**	Copy of certificate of incorporation / Memorandum of Association / Article of Association OR A registered Partnership Deed OR LLP registration certificate issued by registrar of Companies OR In Case of Proprietor, GST Registration and PAN Card copies are to be submitted.
2.	PPP MII guidelines issued by Govt. of India shall be applicable for this tender. Only Class-I Local Suppliers with minimum local content of 60%, 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 Power sector" issued vide ref no. A-1/2021-FSC-Part (5) GoI, MOP Dated 16.11.2021. NOTE: - Only Class-I local suppliers as defined in the above tender are eligible to take part in this bidding process.	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. 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

Sl. No.	Eligibility Criteria	Documents to be Submitted for Compliance by the Bidders
3.	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: · 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. 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.	Bidder to submit a Declaration on Company's Letter Head as per relevant Attachment of the RfP Document.
4.	Bidder and it's Consortium partners is not blacklisted by Central/State/UT Government or any Public sector entities for the tender item/work	Bidder to submit Self Declaration on Company's Letter Head as per relevant Attachment of the RfP Document. 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: 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. 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.

B. Qualifying Requirements:

S. No.	Qualifying Requirements	Documents to be Submitted for Compliance by the Bidders
1	**QUALIFICATION OF THE BIDDER** 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. 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 (i.e., Sole bidder). Consortium/JV allowed.**	
1.1	**Technical Experience**	
1.1.1	The Lead bidder itself, or through MoU (Memorandum of Understanding) /MAF (Manufacturing Authorization Form) with an OEM/OLC (Outdoor Lighting Controller) solution provider partner, must meet the following requirements in the last 7 years as on the originally scheduled date of bid opening (i.e., date of bid opening as per NIT) in Government Power Distribution Utilities / Government DISCOMs / ULBs / PSUs / other Government or Semi-Government organizations. Indian bidders having international experience shall also be considered. The experience must include: i. At least 200,000 individually controlled OLCs (smart streetlights) delivered, installed, and maintained across projects globally. ii. At least one project with over 40,000 functional OLCs in a single city/project. iii. At least one fully operational CMS project in India with over 5,000 individually controlled OLCs within a single city. The bidder may provide MoU/MAF with more than one OEM/OLC solution provider.	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 (i) Successful* completion certificate/s (OR) (ii) any other documentary evidences that can substantiate the successful execution of each of the purchase orders/ work orders/ contract agreements/LOAs/LOIs submitted. Also, CA Certificate in respect of meeting the Technical experience requirement as per Attachment -12B of Section-6. Work orders along with its evidence for successful completion / execution shall only be considered for evaluation. *_Successful means certificate issued by the client without any adverse remarks._

S. No.	Qualifying Requirements	Documents to be Submitted for Compliance by the Bidders
	i. LMS: a) OEM / OLC solution provider must provide its own LMS for remote monitoring, management, metering, controlling and configuring of the Cabinet Controllers and OLCs. b) Such LMS must have Open API to connect with 3rd party Smart City platforms and Integrated Command & Control Centre. c) Such LMS must demonstrate proven integration with at least 3 smart city or asset management platforms. **ii. Local Support:** a) The OEM/OLC partner must have a registered Indian subsidiary/branch office with a minimum of 20 employees including support engineers. b) The OEM/OLC partner must maintain a 24 × 7 online ticketing portal and provide in-country RMA logistics for hardware repairs and spares. c) The OEM/OLC partner should have a fully functional office in Gujarat (or undertake to establish the same before award of AMC contract). Similar Project for CMS shall include supply, installation, testing and commissioning of CMS related projects including smart poles, smart electric infrastructure, control room etc.	Additionally, following documents to be provided: **i.** List of key projects and relevant case studies to be provided. ii. Appropriate reference including the contact details of the municipality and system integrator/ contractor must be provided. a) Bidder has to submit the necessary certification on their letter head duly signed by Company Secretary / Head (HR) / Head of the Organization. b) Bidder should provide self-certification on company's Letter Head c) The bidder must submit a copy of the lease agreements for office locations/ ownership documents OR An undertaking letter to be submitted by the bidder.

<table>
<tr><th>S. No.</th><th>Qualifying Requirements</th><th>Documents to be Submitted for Compliance by the Bidders</th></tr>
<tr><td></td><td>In case of JV / Consortium, following shall be met:

<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="3">Compliance Requirements</th></tr>
<tr><th>All Partners Combined</th><th>Other Partners</th><th>Lead Partner</th></tr>
<tr><td>Technical Experience</td><td>Not Applicable</td><td>Not Applicable</td><td>Must meet 100% of the requirement</td></tr>
</table>

Lead partner shall also ensure compliance with the local presence requirement i.e. ii (a), (b) & (c) above.</td><td></td></tr>
<tr><td>1.1.2</td><td>Bidder should have successfully executed / completed ‘Similar work’ in the last 7 years, as on the originally scheduled date of bid opening (i.e., date of bid opening as per NIT) in any Govt. Power Distribution Utilities/Govt. DISCOMS/ULBs/PSUs/any other Govt. or Semi-Govt. Organizations.

Indian bidders having international experience shall also be considered.

• Single Work Order valued not less than Rs. 310.29 Crores

In case of JV / Consortium, following shall be met:

a. In case of Two Partners:

<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="3">Compliance Requirements</th></tr>
<tr><th>All Partners Combined</th><th>Other Partner</th><th>Lead Partner</th></tr>
<tr><td>Technical Experience</td><td>Not Applicable</td><td>Must meet 100% of the requirement</td><td>Not Applicable</td></tr>
</table></td><td>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

(iii) Successful* completion certificate/s

(OR)

(iv) any other documentary evidences that can substantiate the successful execution of each of the purchase orders/ work orders/ contract agreements/LOAs/LOIs submitted.

Work orders along with its evidence for successful completion / execution shall only be considered for evaluation.

Also, CA Certificate in respect of meeting the Technical experience requirement as per Attachment -12B of Section-6.</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Qualifying Requirements</th><th>Documents to be Submitted for Compliance by the Bidders</th></tr>
<tr><td></td><td>

b. In case of Three Partners:

<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="3">Compliance Requirements</th></tr>
<tr><th>All Partners Combined</th><th colspan="2">Other Partners</th><th>Lead Partner</th></tr>
<tr><th></th><th>Partner 1</th><th>Partner 2</th><th></th></tr>
<tr><td>Technical Experience</td><td>Partner 1 & Partner 2 must cumulatively meet 100% of the requirement</td><td>Must meet at least 50% of the requirement</td><td>Must meet at least 30% of the requirement</td><td>Not Applicable</td></tr>
</table>

OR

- Two Work Orders each valued not less than **Rs. 193.93 Crores**

In case of JV / Consortium, following shall be met:

a. In case of Two Partners:

<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="3">Compliance Requirements</th></tr>
<tr><th>All Partners Combined</th><th>Other Partner</th><th>Lead Partner</th></tr>
<tr><td>Technical Experience</td><td>Not Applicable</td><td>Must meet 100% of the requirement</td><td>Not Applicable</td></tr>
</table>

</td><td>

**Successful means certificate issued by the client without any adverse remarks.*

</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Qualifying Requirements</th><th>Documents to be Submitted for Compliance by the Bidders</th></tr>
<tr><td></td><td>

b. In case of Three Partners:

<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="3">Compliance Requirements</th></tr>
<tr><th>All Partners Combined</th><th colspan="2">Other Partners</th><th>Lead Partner</th></tr>
<tr><th></th><th>Partner 1</th><th>Partner 2</th><th></th></tr>
<tr><td>Technical Experience</td><td>Partner 1 & Partner 2 must cumulatively meet 100% of the requirement</td><td>Must meet at least 50% of the requirement</td><td>Must meet at least 30% of the requirement</td><td>Not Applicable</td></tr>
</table>

OR

- Three Work Orders each valued not less than **Rs. 155.14 Crores**

In case of JV / Consortium, following shall be met:

a. In case of Two Partners:

<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="3">Compliance Requirements</th></tr>
<tr><th>All Partners Combined</th><th>Other Partner</th><th>Lead Partner</th></tr>
<tr><td>Technical Experience</td><td>Not Applicable</td><td>Must meet 100% of the requirement</td><td>Not Applicable</td></tr>
</table>

</td><td></td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Qualifying Requirements</th><th>Documents to be Submitted for Compliance by the Bidders</th></tr>
<tr><td></td><td>
b. In case of Three Partners:
<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="3">Compliance Requirements</th></tr>
<tr><th>All Partners Combined</th><th colspan="2">Other Partners</th><th>Lead Partner</th></tr>
<tr><th></th><th>Partner 1</th><th>Partner 2</th><th></th></tr>
<tr><td>Technical Experience</td><td>Partner 1 & Partner 2 must cumulatively meet 100% of the requirement</td><td>Must meet at least 50% of the requirement</td><td>Must meet at least 30% of the requirement</td><td>Not Applicable</td></tr>
</table>
OR
Four Work Orders each valued not less than Rs. 135.75 Crores
In case of JV / Consortium, following shall be met:
a. In case of Two Partners:
<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="3">Compliance Requirements</th></tr>
<tr><th>All Partners Combined</th><th>Other Partner</th><th>Lead Partner</th></tr>
<tr><td>Technical Experience</td><td>Not Applicable</td><td>Must meet 100% of the requirement</td><td>Not Applicable</td></tr>
</table>
</td><td></td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Qualifying Requirements</th><th>Documents to be Submitted for Compliance by the Bidders</th></tr>
<tr><td></td><td>

b. In case of Three Partners:

<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="4">Compliance Requirements</th></tr>
<tr><th>All Partners Combined</th><th colspan="2">Other Partners</th><th>Lead Partner</th></tr>
<tr><th></th><th>Partner 1</th><th>Partner 2</th><th></th></tr>
<tr><td>Technical Experience</td><td>Partner 1 & Partner 2 must cumulatively meet 100% of the requirement</td><td>Must meet at least 50% of the requirement</td><td>Must meet at least 30% of the requirement</td><td>Not Applicable</td></tr>
</table>

"Similar Work" means

Dismantling, Installation and Commissioning (DIC) & / or Installation & Commissioning & / or Operation & Maintenance (O&M) & / or Repair and Maintenance Work (R&M Work) & / or

Supply, Installation, Testing and Commissioning (SITC) & / or Supply of Street Lights / Heritage Lighting / Façade Lighting in any Power Distribution Utilities/DISCOMS/ULBs/or any other Govt. Organization

OR

LT 440 volts' work / HT 11 KV / Electrical Project execution works

OR

Bidder should have executed SITC job of electrical infrastructure development.

OR

Bidder should have executed project related to power sector infrastructure development.

OR

EPC of Electrical Installation Works at Plant and / or Buildings.

</td><td></td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Qualifying Requirements</th><th>Documents to be Submitted for Compliance by the Bidders</th></tr>
<tr><td></td><td>OR
EPC Works of Electrical Substation or Transmission Lines

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.

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.

Following enhancement factor will be applied to completion cost to bring them to the base year. The current financial year in which bid is invited shall be considered as the Base Year for Eligibility in the above specified criteria.

<table><tr><th>Year</th><th>Financial Year</th><th>Enhancement Factor</th></tr><tr><td>Base Year</td><td>2024-25</td><td>1.00</td></tr><tr><td>1</td><td>2023-24</td><td>1.07</td></tr><tr><td>2</td><td>2022-23</td><td>1.14</td></tr><tr><td>3</td><td>2021-22</td><td>1.21</td></tr><tr><td>4</td><td>2020-21</td><td>1.28</td></tr><tr><td>5</td><td>2019-20</td><td>1.35</td></tr><tr><td>6</td><td>2018-19</td><td>1.42</td></tr><tr><td>7</td><td>2017-18</td><td>1.49</td></tr></table></td><td></td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Qualifying Requirements</th><th>Documents to be Submitted for Compliance by the Bidders</th></tr>
<tr><td>1.1.3</td><td>
Bidder should have successfully executed / completed 'Similar work' in the last 7 years, as on the originally scheduled date of bid opening (i.e., date of bid opening as per NIT) in any Govt. Power Distribution Utilities/Govt. DISCOMS/ULBs/PSUs/any other Govt. or Semi-Govt. Organizations.

Indian bidders having international experience shall also be considered.

• Single Work Order for at least O & M Work of 1,66,000 No. of Street lights for at least Three years.

In case of JV / Consortium, following shall be met:

a. In case of Two Partners:
<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="3">Compliance Requirements</th></tr>
<tr><th>All Partners Combined</th><th>Other Partner</th><th>Lead Partner</th></tr>
<tr><td>Technical Experience</td><td>Not Applicable</td><td>Must meet 100% of the requirement</td><td>Not Applicable</td></tr>
</table>
b. In case of Three Partners:
<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="4">Compliance Requirements</th></tr>
<tr><th rowspan="2">All Partners Combined</th><th colspan="2">Other Partners</th><th rowspan="2">Lead Partner</th></tr>
<tr><th>Partner 1</th><th>Partner 2</th></tr>
<tr><td>Technical Experience</td><td>Partner 1 & Partner 2 must cumulatively meet 100% of</td><td>Must meet at least 50% of the requirement</td><td>Must meet at least 30% of the requirement</td><td>Not Applicable</td></tr>
</table>
</td><td>
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

(i) Successful* completion certificate/s

(OR)

(ii) any other documentary evidences that can substantiate the successful execution of each of the purchase orders/ work orders/ contract agreements/LOAs/LOIs submitted.

Work orders along with its evidence for successful completion / execution shall only be considered for evaluation.

Also, CA Certificate in respect of meeting the Technical experience requirement as per Attachment -12C of Section-6.

*Successful means certificate issued by the client without any adverse remarks.
</td></tr>
</table>

S. No.	Qualifying Requirements	Documents to be Submitted for Compliance by the Bidders

	the requirement			

OR

- Two Work Orders each at least O&M work of 1,03,600 No. of Street lights for at least Three years.

In case of JV / Consortium, following shall be met:

a. In case of Two Partners:

QR Criteria	Compliance Requirements		
	All Partners Combined	**Other Partner**	**Lead Partner**
Technical Experience	Not Applicable	Must meet 100% of the requirement	Not Applicable

b. In case of Three Partners:

QR Criteria	Compliance Requirements			
	All Partners Combined	**Other Partners**		**Lead Partner**
		Partner 1	**Partner 2**	
Technical Experience	Partner 1 & Partner 2 must cumulatively meet 100% of the requirement	Must meet at least 50% of the requirement	Must meet at least 30% of the requirement	Not Applicable

<table>
<tr><th>S. No.</th><th>Qualifying Requirements</th><th>Documents to be Submitted for Compliance by the Bidders</th></tr>
<tr><td></td><td>

OR

- Three Work Orders each at least O&M work of 82,900 No. of Street lights for at least Three years.

In case of JV / Consortium, following shall be met:

a. In case of Two Partners:

<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="3">Compliance Requirements</th></tr>
<tr><th>All Partners Combined</th><th>Other Partner</th><th>Lead Partner</th></tr>
<tr><td>Technical Experience</td><td>Not Applicable</td><td>Must meet 100% of the requirement</td><td>Not Applicable</td></tr>
</table>

b. In case of Three Partners:

<table>
<tr><th rowspan="3">QR Criteria</th><th colspan="4">Compliance Requirements</th></tr>
<tr><th rowspan="2">All Partners Combined</th><th colspan="2">Other Partners</th><th rowspan="2">Lead Partner</th></tr>
<tr><th>Partner 1</th><th>Partner 2</th></tr>
<tr><td>Technical Experience</td><td>Partner 1 & Partner 2 must cumulatively meet 100% of the requirement</td><td>Must meet at least 50% of the requirement</td><td>Must meet at least 30% of the requirement</td><td>Not Applicable</td></tr>
</table>

OR

- Four Work Orders each at least O&M work of 72,600 No. of Street lights for at least Three years.

</td><td></td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Qualifying Requirements</th><th>Documents to be Submitted for Compliance by the Bidders</th></tr>
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In case of JV / Consortium, following shall be met:

a. In case of Two Partners:

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<tr><th>All Partners Combined</th><th>Other Partner</th><th>Lead Partner</th></tr>
<tr><td>Technical Experience</td><td>Not Applicable</td><td>Must meet 100% of the requirement</td><td>Not Applicable</td></tr>
</table>

b. In case of Three Partners:

<table>
<tr><th rowspan="3">QR Criteria</th><th colspan="4">Compliance Requirements</th></tr>
<tr><th rowspan="2">All Partners Combined</th><th colspan="2">Other Partners</th><th rowspan="2">Lead Partner</th></tr>
<tr><th>Partner 1</th><th>Partner 2</th></tr>
<tr><td>Technical Experience</td><td>Partner 1 & Partner 2 must cumulatively meet 100% of the requirement</td><td>Must meet at least 50% of the requirement</td><td>Must meet at least 30% of the requirement</td><td>Not Applicable</td></tr>
</table>

"Similar Work" means

Operation & Maintenance (O&M) / Repair and Maintenance (R&M) of Street lights/High Mast / Flood Lights.

Note:

1. Any line shifting work will not be considered as an experience
2. Solar Street work will not be considered.)

</td><td></td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Qualifying Requirements</th><th>Documents to be Submitted for Compliance by the Bidders</th></tr>
<tr><td></td><td>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.

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.</td><td></td></tr>
<tr><td>1.1.4</td><td>The bidder should be registered in “A” class for Electrical contractor in PWD in Govt. R&B/CPWD/AMC or equivalent registration with any other state Govt. or Govt. institutions in India duly renewed for the current year. In case of successful bidder having Electrical Contractor registration outside Gujarat state, it is mandatory to obtain the Electrical Contractor Class -A registration from Govt of Gujarat (If not available) within 6 months from the date of the Award.

In case of JV / Consortium, following shall be met:

a. In case of Two Partners:

<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="3">Compliance Requirements</th></tr>
<tr><th>All Partners Combined</th><th>Other Partner</th><th>Lead Partner</th></tr>
<tr><td>Technical Experience</td><td>Not Applicable</td><td>Must meet the requirement</td><td>Not Applicable</td></tr>
</table>
</td><td>Bidder to submit the Registration Certificate issued by Competent Government Authority.</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Qualifying Requirements</th><th>Documents to be Submitted for Compliance by the Bidders</th></tr>
<tr><td></td><td>

b. In case of Three Partners:

<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="3">Compliance Requirements</th></tr>
<tr><th>All Partners Combined</th><th colspan="2">Other Partners</th><th>Lead Partner</th></tr>
<tr><th></th><th>Partner 1</th><th>Partner 2</th><th></th></tr>
<tr><td>Technical Experience</td><td>Not Applicable</td><td>Must meet the requirement</td><td>Must meet the requirement</td><td>Not Applicable</td></tr>
</table>

Note: It is the responsibility of the Contractor to keep the licence valid during the execution of contract for the complete contract duration, in event of award of work.

</td><td></td></tr>
<tr><td>1.1.5</td><td>

The bidder shall possess a valid electrical contractor license for the last 7 years from 31st March 2025 in bidders name and duly renewed for the current year from any central/state government.

In case of JV / Consortium, following shall be met:

a. In case of Two Partners:

<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="3">Compliance Requirements</th></tr>
<tr><th>All Partners Combined</th><th>Other Partner</th><th>Lead Partner</th></tr>
<tr><td>Technical Experience</td><td>Not Applicable</td><td>Must meet the requirement</td><td>Not Applicable</td></tr>
</table>

</td><td>Bidder to submit the Electrical Contractor License issued by Competent Government Authority.</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Qualifying Requirements</th><th>Documents to be Submitted for Compliance by the Bidders</th></tr>
<tr><td></td><td>b. In case of Three Partners:

<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="4">Compliance Requirements</th></tr>
<tr><th>All Partners Combined</th><th colspan="2">Other Partners</th><th>Lead Partner</th></tr>
<tr><th></th><th>Partner 1</th><th>Partner 2</th><th></th></tr>
<tr><td>Technical Experience</td><td>Not Applicable</td><td>Must meet the requirement</td><td>Must meet the requirement</td><td>Not Applicable</td></tr>
</table>

Note:
In case of successful bidder having Electrical Contractor registration outside Gujarat state, it is mandatory to obtain the Electrical contractor license from Govt of Gujarat (If not available) within 2 months from the date of the LOA.</td><td></td></tr>
<tr><td colspan="3">1.2 Financial QR:</td></tr>
<tr><td>1.2.1</td><td>Bidders should have an Average Annual Turnover (ATO) of at least Rs. 116.36 Crores during the last 3 Financial Years.

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.</td><td>Duly authorized copies of audited financials for preceding last three Financial Years are to be submitted by the bidder.

ATO means revenue from operations.

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</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Qualifying Requirements</th><th>Documents to be Submitted for Compliance by the Bidders</th></tr>
<tr><td></td><td>
In case of JV / Consortium, following shall be met:

c. In case of Two Partners:
<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="3">Compliance Requirements</th></tr>
<tr><th>All Partners Combined</th><th>Other Partner</th><th>Lead Partner</th></tr>
<tr><td>ATO (Average Annual Turnover)</td><td>Must meet the requirement</td><td>Must meet at least 40% of the requirement</td><td>Must meet at least 50% of the requirement</td></tr>
</table>
a. In case of Three Partners:
<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="3">Compliance Requirements</th></tr>
<tr><th>All Partners Combined</th><th colspan="2">Other Partners</th><th>Lead Partner</th></tr>
<tr><th></th><th></th><th>Partner 1</th><th>Partner 2</th><th></th></tr>
<tr><td>ATO (Average Annual Turnover)</td><td>All Partners must cumulatively meet 100% of the requirement</td><td>Must meet at least 25% of the requirement</td><td>Must meet at least 20% of the requirement</td><td>Must meet at least 40% of the requirement</td></tr>
</table>
</td><td></td></tr>
<tr><td>1.2.2</td><td>Bidder shall have liquid assets (L.A) or/ and evidence of access to or availability of credit facilities of not less than Rs. 96.97 Crores.

(Balance Sheet of immediate last financial year would be considered for this calculation.)</td><td>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.)</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Qualifying Requirements</th><th>Documents to be Submitted for Compliance by the Bidders</th></tr>
<tr><td></td><td>
Note: The LA for the bidder shall be calculated from the Audited Financial Statement as per the following:

L.A= [Current Assets- Inventory]

In case of JV / Consortium, following shall be met:

a. In case of Two Partners:
<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="3">Compliance Requirements</th></tr>
<tr><th>All Partners Combined</th><th>Other Partner</th><th>Lead Partner</th></tr>
<tr><td>LA (Liquid Assets)</td><td>Must meet the requirement</td><td>Must meet at least 40% of the requirement</td><td>Must meet at least 50% of the requirement</td></tr>
</table>
b. In case of Three Partners:
<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="3">Compliance Requirements</th></tr>
<tr><th rowspan="2">All Partners Combined</th><th colspan="2">Other Partners</th><th rowspan="2">Lead Partner</th></tr>
<tr><th>Partner 1</th><th>Partner 2</th></tr>
<tr><td>LA (Liquid Assets)</td><td>All Partners must cumulatively meet 100% of the requirement</td><td>Must meet at least 25% of the requirement</td><td>Must meet at least 20% of the requirement</td><td>Must meet at least 40% of the requirement</td></tr>
</table>
</td><td>
OR

Certification from Bank regarding availability of credit facilities of not less than Rs. 96.97 Crores. (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.
</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Qualifying Requirements</th><th>Documents to be Submitted for Compliance by the Bidders</th></tr>
<tr><td>1.2.3</td><td>The net worth of the bidder in immediate last financial year should not be less than 100% of paid-up share capital or capital.

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.

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-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.

In case of JV / Consortium, following shall be met:

a. In case of Two Partners:

Individual members must each satisfy the requirements of para above.

<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="3">Compliance Requirements</th></tr>
<tr><th>All Partners Combined</th><th>Other Partner</th><th>Lead Partner</th></tr>
<tr><td>Net Worth</td><td>Must meet the requirement</td><td>Must meet the requirement</td><td>Must meet the requirement</td></tr>
</table>
</td><td>Duly authorized copies of audited financials for preceding last three Financial Years are to be submitted by bidder.</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Qualifying Requirements</th><th>Documents to be Submitted for Compliance by the Bidders</th></tr>
<tr><td></td><td>

b. In case of Three Partners:

<table>
<tr><th rowspan="2">QR Criteria</th><th colspan="4">Compliance Requirements</th></tr>
<tr><th rowspan="2">All Partners Combined</th><th colspan="2">Other Partners</th><th rowspan="2">Lead Partner</th></tr>
<tr><th>Partner 1</th><th>Partner 2</th></tr>
<tr><td>Net Worth</td><td>Not Applicable</td><td>Must meet requirement</td><td>Must meet requirement</td><td>Must meet requirement</td></tr>
</table>

</td><td></td></tr>
</table>

C. Notes to the QR:

Sl. No.	
1.	**Credit from Parent / Subsidiary / Sister Concern for meeting the Eligibility and Qualifications (Technical & Financial)** i. Taking credit from Associate (i.e. subsidiary/parent/sister concern firm) for meeting the Eligibility and Qualification Criteria is permitted subject to provisions specified hereunder. ii. In case a bidder is relying on qualifications of subsidiary/parent/sister concern firm for being considered for determination of compliance/meeting requirement with regards to the Eligibility and Technical Score Criteria, then under such circumstances, the bidder shall clearly indicate, with supporting documentation, the relationship between the bidder and the entity whose qualifications it is seeking to rely upon. a. The bidder, if a subsidiary of another company, may claim such qualification only if the parent company has more than 50% shareholding in it. b. Similarly, a bidder may claim such qualification from its subsidiary only if it has a more than 50% shareholding in the subsidiary. c. Finally, a bidder may claim credit from a sister concern only if the parent company holds more than 50% shareholding in both the bidding company and sister concern. If the firms are not in the nature of companies, then the determination of the relationship would be based on possessing a controlling stake. If bidding firm is a partnership firm, then determination of relationship is based percentage of profit sharing. In such case more than 50% of profit-sharing shall be considered eligible for claiming credit from Parent (Parent firm or common partners holds more than 50% profit sharing in bidding firm) / Subsidiary (Bidding firm or common partners holds more than 50% profit sharing in subsidiary firm) / Sister Concern (Parent firm holds more than 50% profit sharing in both bidding firm and sister concern firm). iii. Any claims of credit from Parent/Subsidiary/Sister Concern firm must be accompanied by a certificate by a registered chartered accountant clearly explaining how the Parent/Subsidiary/Sister Concern firm meets the above definition of the Parent/Subsidiary/Sister Concern firm with relation to Bidding Firm.

Sl. No.	
2.	**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.** *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.* *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.*
3.	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.
4.	**In case of holding company: -** The holding subsidiary relationship should be in existence for at least one year as on the date of submission of the bids. • "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

Sl. No.	
	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

xxxxxxxxxxxxxx The End xxxxxxxxxx

In case Bidder wishes to participate in JV / Consortium following conditions are additionally applicable: -

1. The term Bidder used hereinafter would therefore apply to both a single entity and a Consortium/ JV.

2. A JV/Consortium of maximum three (03) members is allowed in this RfP including one as lead bidder.

3. In case of Consortium/ JV, either one may act as a lead member (in this case the party meeting Technical QR criteria of 1.1.1 shall primarily be the Lead bidder. However, other criteria's shall also be met by the firm as specified).

4. In case of JV/consortium the other two members apart from the lead partner should mandatorily be from the business as defined in the QR for similar work (other than Technical QR criteria 1.1.1).

5. Lead Bidder accepts primary responsibility for providing a robust and quality product meeting technical specifications of tender.

6. Members of any Consortium/Joint Venture Firm shall not be permitted to participate either in individual capacity or as a member of any other Consortium/Joint Venture Firm in the same tender. Submission or participation in more than one bid will cause disqualification of all the proposals submitted by the bidder.

7. All formalities in respect of submission of tender shall be done only in the name of 'Lead Member' and not in the name of Consortium/Joint Venture Firm. However, name & other details of both the members of Consortium/ Joint Venture Firm should be clearly mentioned in the Bid/ Response.

8. A copy of Memorandum of Understanding (MOU) executed between the members of Consortium/JV shall be submitted along with the tender. The complete details of the members of the Consortium/ Joint Venture Firm, their share and responsibility in the Consortium/JV etc. particularly with reference to financial, technical and other obligations shall be furnished in the MOU.

9. Once the offer/ bid is submitted, the MOU shall not be modified / altered/ terminated during the period of execution including any extension thereafter by EESL or validity of any letter of award awarded to the said Consortium/Joint Venture Firm. In case the tenderer fails to observe/comply with this stipulation, the full Security Deposit/ Earnest Money Deposit (EMD)/ Performance Bank Guarantee (PBG) shall be liable to be forfeited.

10. A duly notarized agreement of Consortium/Joint Venture Firm shall be executed between the 'Lead Member' and Consortium/JV Partner. This Agreement should be submitted along with the offer/bid. The scanned copy of the Agreement to be attached

along with the Techno-Commercial bid in E-Procurement portal. The original copy of the Agreement shall be submitted to EESL on or before the due date of submission of tender.

11. Authorized Member of Consortium/Joint Venture Firm: 'Lead Member' shall be authorized on behalf of Consortium/Joint Venture Firm to deal with the tender/EESL, sign the agreement or enter into contract in respect of the said tender, to receive payment and such activities in respect of the said tender/ contract. All notices/ correspondences with respect to the contract would be sent only to this 'Lead Member' of Consortium/Joint Venture Firm.

12. Required Tender document fee shall be submitted by the 'Lead Member', Submission of Tender document fee by the 'Lead Member' it should be deemed as Tender document fee submitted by the Consortium/Joint Venture Firm.

13. Duration of MOU and Consortium/JV Agreement shall be valid during the entire execution period/ validity of letter of award and any extension thereafter /currency of the contract including the period of extension, if any

14. Any change in constitution of Consortium/Joint Venture Firm shall not be allowed.

15. On award of any contract to the Consortium/ Joint Venture Firm, a single Performa i.e. Bank Guarantee shall be submitted by the lead bidder as per tender conditions. All the Guarantees like Security Deposit, Earnest money Deposit, Performance Guarantee, and Bank Guarantee for Mobilization Advance etc. shall be accepted only in the name of 'Lead Member' and splitting of guarantees among the members of Consortium/JV shall not be permitted.

16. Members of the Consortium/Joint Venture Firm shall be jointly and severally liable to the EESL for execution of the project/ Work/ Assignment etc. The Consortium/JV members shall also be liable jointly and severally for the loss, damage caused to the EESL during execution of any awarded contract or due to non-execution of the contract or part thereof.

17. Governing Laws for Consortium/ Joint Venture Firm: The Consortium/JV Agreement in all respect be governed by and interpreted in accordance with Indian Laws.

18. All correspondence by EESL will be done with 'Lead member' only.

Section 4: Part C

Selection of Execution Partner under Consortium arrangement for *Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years* **at Ahmedabad Municipal Corporation.**

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Appendix 3: Tender Drawings of AMC Tender Document

Disclaimer

The information contained in this Request for Proposal document (the "RFP") or subsequently provided to Bidder(s), whether verbally or in documentary or in any other form by or on behalf of the EESL or any of its employees or advisors, is provided to Bidder(s) on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided.

This RFP is not an agreement and is neither an offer nor invitation by the EESL to the prospective Bidders or any other person. The purpose of this RFP is to provide interested bidders with information that may be useful to them in making their financial offers (Bids) pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by the EESL in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This RFP may not be appropriate for all persons, and it is not possible for the EESL, its employees or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in the Bidding Documents, may not be complete, accurate, adequate or correct. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this RFP and obtain independent advice from appropriate sources.

Information provided in this RFP to the Bidder(s) is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The EESL accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

The EESL, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Applicant or Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way for participation in this Bid Stage.

The EESL also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this RFP.

Name of the Tender: "Selection of Execution Partner under Consortium arrangement for *Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years* at Ahmedabad Municipal Corporation.".

1. Introduction

Energy Efficiency Services Limited (EESL) is a Joint Venture of NTPC Limited, Power Grid Corporation of India Limited (PGCIL), Power Finance Corporation Limited (PFC) and Rural Electrification Corporation Limited (REC), established to facilitate implementation of energy efficiency projects. EESL will work as ESCO, as Consultancy Organization for CDM, Energy Efficiency, etc.; as a Resource Centre for capacity building of SDAs, Utilities, financial institutions, etc. EESL will also lead the market-related actions of the NMEEE. It is first such company exclusively for implementation of energy efficiency in South Asia and amongst a very few such instances in the world.

Energy Efficiency Services Limited intends to participate as the Lead Consortium Partner in the Ahmedabad Municipal Corporation (AMC) tender with subject description as:

> *"Tender for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years"*

This document sets out the framework for selection of an Execution Partner by EESL for forming a consortium to jointly bid for the above AMC tender.

EESL invites competent and experienced agencies to undertake implementation of LED streetlighting projects integrated with AI Capable light controller systems for the Smart City Management System The engagement is expected to span **60 Months – including 9 Months for implementation of CMS and 60 Months overall for O&M** (performance of which shall be reviewed each year for further continuity) focusing on comprehensive services including deployment of capex, design, development, procurement, installation, maintenance, reporting, and stakeholder coordination.

2. Purpose of Selection of successful bidder as Consortium partner

a. Join EESL in a pre-bid consortium for the AMC tender.
b. Execute the project scope (Survey, SITC, CMS, Optional AI & Monetization, and Comprehensive O&M), as specified in Volume -I of AMC tender document.
c. Provide financial, technical, and operational strength to ensure a successful bid and delivery.
d. Assist EESL in the entire bidding process with AMC, including bid preparation, technical clarifications, and documentation.
e. Enter into a Joint Bidding Agreement (MoU) with EESL prior to bid submission, and thereafter a Comprehensive Consortium Agreement in case of award.
f. Prospective bidders are requested to go through the entire document and fill up all information asked for and attach all the documents/evidence as specified in this document.
g. Bids submitted by Bidders for Selection under this notice shall be scrutinized as per the qualifying requirements, terms and conditions mentioned in this document and a PRE-BID TIE-UP will be formed with selected bidder to bid as a consortium in the Ahmedabad Municipal Corporation (AMC) Tender.
h. In addition, the bidders are required to submit their lowest price for the items mentioned in the price bid table (by giving maximum discounts on the declared item-wise rates in the Vol. III document). The discovered price will become the basis of final EESL bid price offer in the Ahmedabad MC tender.
i. It is to be noted that, mere Selection under this process does not confer any right whatsoever to the Selected agency to claim any award of work. Award of work order to the Selected agency shall be done by EESL through a separate Release Order / Purchase Order once a confirmed order is received by EESL from Ahmedabad MC and same is accepted by EESL.
j. Restriction on Participation: The bidder selected under this RFP shall not participate independently or with any other consortium in the AMC tender for similar assignments. This is to ensures exclusivity of consortium participation with EESL.

3. Consortium Structure: Roles & Responsibilities

The consortium shall be structured as follows:

A. EESL (Lead Consortium Partner):

(i) Acts as the lead member for bidding and contracting with AMC.
(ii) Provides consortium leadership and corporate strength.
(iii) Ensures eligibility compliance for under Section 2a(A) and (B) of AMC tender.
(iv) Raise invoices and receive payments from AMC.
(v) Receives payments from AMC into the designated Consortium Escrow Account.

EESL shall retain [Quoted Percentage] of the Invoice value, upon receipt of payment

from AMC against the respective Invoice(s) for the entire term of the contract. Such arrangement is applicable for Sections 2a (A), (B) & (C) and also includes payments against Invoices raised for additional/extra works, variations, or extensions, if any.

B. Execution Partner (Consortium Member):

(i) Fulfil AMC tender qualification criteria under Section 2a (C) either directly or through MoU/MAF with CMS/LMS eligible partners and ensure technical expertise/capabilities to enable execution of Section 2a (D).

(ii) Bring in consortium partners for fulfilling the AMC tender criteria for Section 2a(A) & (B).

(iii) Fund the entire project and provide all investment for execution, including project financing, manpower, vehicles, spares, SITC, CMS, and O&M.

(iv) Raise Invoice(s) to EESL, as per NoA/agreement with EESL.

(v) Be responsible for Part D (AI-related work) as awarded.

(vi) Assists EESL in preparation and submission of AMC bid documents, including technical and commercial inputs.

(vii) Arranges project execution capabilities, manpower, SITC vendors, suppliers, and resources to ensure compliance with A+B+C through consortium strength and/or through MoU/MAF mode.

(viii) Executes all works under the AMC scope, including survey, SITC, CMS, Optional AI, monetization, and 5-year O&M as specified in Volume-I of AMC tender document.

(ix) Provides guarantees, manpower deployment, and resources as per AMC tender.

(x) Indemnify and hold EESL harmless from all liabilities, claims, penalties, and damages under the AMC contract.

(xi) Acknowledge that AMC requires all consortium members to be jointly and severally liable. While EESL remains bound under the contract, the Execution Partner shall assume full responsibility for discharging all obligations and indemnify EESL against the same.

The roles and responsibilities shall be further detailed in the Joint Bidding Agreement (MoU)

4. Scope of Work

1. The detailed scope of work shall be as per AMC tender documents, comprising:

(i) Volume-I: Scope of Work & Eligibility

(ii) Volume-II: Technical Specification

(iii) Volume-III: Price Bid (Schedule of Rates)

(iv) Tender Drawings

(v) Corrigendum(s)

2. The Execution Partner shall execute the complete works as per detailed scope as above, including:

(i) Field survey & asset mapping.
(ii) SITC of poles, arms, cables, luminaires.
(iii) Comprehensive O&M of street lighting for 5 years.
(iv) Execution of CMS with optional AI integration & monetization, fully integrated with AMC's ICCC.

3. Manpower & Resources: The Execution Partner shall:

(i) Deploy adequate skilled and unskilled manpower, vehicles, tools, and equipment for SITC, O&M, CMS, and AI-based tasks.
(ii) Maintain 24x7 complaint handling and response teams, with resolution timelines strictly as per AMC Volume-I.
(iii) Ensure manpower training, certifications, and statutory compliance.

4. Brief Extract of Scope of Work

This is a Comprehensive Operation and Maintenance contract including daily switching ON & OFF the streetlight poles and High mast poles at various places of Ahmedabad City. It includes Main roads, Internal roads, societies, chawls, gardens, BRTS Corridors, etc.

1. The work is for comprehensive maintenance and repairing of streetlight poles of 3.0 Mtr. to 16.0 Mtr. height with 18w to 170w streetlight LED fittings, 100w to 250w (BRTS Fitting) LED fittings, 70/150/250w Sodium/MH flood light fitting etc. and 12.0 Mtr. to 30.0 Mt. height High Mast poles with 110w to 250w LED fittings, 250/400w, 2x400w Sodium/MH flood lights and to keep them all in working condition by providing and replacing the required materials as and when necessary, at various locations of A.M.C. limit area including carting, loading, unloading, transporting, etc.

i. For morning team: - Attending one ward (AMC ward area) streetlight poles, there should be minimum one ladder mounted vehicle with one driver and a gang of one Technician of I.T.I./PWD/Second class electrician/wireman and two wireman helpers

- total three technical staff and one driver with one ladder mounted vehicle. Technician shall be I.T.I./PWD/Second class electrician/wireman & should be from parent company is mandatory. (At present there are 48 wards & 2,07,163 poles exists, if at some stage AMC ward will increase/decrease the vehicle remains proportionately provided)

ii. For Evening team: - Attending One zone (AMC zone area) streetlight poles, there should be minimum Two teams, each team comprising of one ladder mounted vehicle with one driver and a gang of one Technician of I.T.I./PWD/Second class electrician/wireman and one wireman helpers – total two technical staff and one driver with one ladder mounted vehicle.

Technician shall be I.T.I./PWD/Second class electrician/wireman & should be from parent company is mandatory.

iii. For Night team: - Attending One zone (AMC zone area) streetlight poles, there should be minimum One team comprising of one ladder mounted vehicle with one driver and a gang of one Technician of I.T.I./PWD/Second class electrician/wireman and one wireman helpers – total two technical staff and one driver with one ladder mounted vehicle. Technician shall be I.T.I./PWD/Second class electrician/wireman & should be from parent company is mandatory.

iv. Maintenance team must be available round the clock 24x7 in each zone.

v. If in any ward pole qty. exceeds 6000 Nos of streetlight poles in such cases contractor has to provide one additional team with ladder mounted vehicle.

vi. Tenderer has to arrange separate SFP (Section Feeder Panel) maintenance team in each zone having two Technicians. Technician shall be I.T.I./PWD/Second class electrician/wireman & should be from parent company is mandatory.

vii. Tenderer should have to keep biometric attendance system of all staff members, which will be monitored centrally, and report should submit along with monthly bill.

viii. All vehicles should be with GPS enable. Which will be monitored centrally, and report should submit along with monthly bill.

ix. Tenderer should have to provide smart phone with self-developed real-time streetlight app (android/ios) for all streetlight O & M related work to every ward technician. It should be integrated with AMC's CCRS (Comprehensive Complain Redressal System) or any other app developed by AMC. It should also be monitored from all AMC's zonal desktop and Master desktop. For that successful tenderer has to provide separate computer at all AMC's zonal and head office with necessary application (monitoring software).

x. Attended complain should be reported along with real time photographs uploaded in self-developed streetlight app, to minimize reopen complains.

xi. Ward wise technician of I.T.I./PWD/Second class electrician/wireman & should be from parent company is mandatory. Subcontractor's technician will not be allowed.

xii. All vehicle registration for street light O & M should not be older than 15 years and fitness certificate of vehicle has to be provided as per RTO/Govt. rules.

xiii. For attending every 6,000 streetlight poles (For boom van consider 7.0mt and above height poles only), there should also be minimum one hydraulic vehicle (boom van) with driver shall be provided. Over and above, three electrical engineers (Minimum Diploma Engineer) with two-years' experience per zone shall be employed by the contractor for supervising the work and documentation work with AMC, to maintain streetlight burning rate of minimum 97%.

xiv. After receiving the work order and on commencement of the contract, it will be mandatory for the successful contractor to carry out the detailed survey for the census of existing streetlight poles in entire city with help of mobile app or any kind of latest equipment (Geo-coordinate mapping) depicting longitude and latitude and code of each streetlight poles as per the below format within 6 months.

Along with the Census Report, the Contractor has to submit the SLD (Single Line Diagram) of the Street Lighting System.

After new poles are added to the system of contractor then for same new poles, the format also has to be continued & updated.

xv. In Ahmedabad city, during the entire year many events / functions are being organised, at that time AMC will carry out temporary lighting through temporary lighting contractor by installing additional lightings on existing streetlight pole/existing streetlight feeder panel.

xvi. During Such Events, it will be in the scope of contractor to co-ordinate with temporary light contractor and guide for any temporary lighting work (for the power to be taken from the street lighting system) at time of any event or festivals. During such work the contractor has to guide for the load balancing work and co-ordinate with temporary light contractor in order to ensure safety from electrocution so that NO fatal/non-fatal incidence occur.

xvii. **Setting up Call Centre**

The successful tenderer shall establish a dedicated Call Centre at the contractor's local office in Ahmedabad. The contractor shall bear all expenses related to the setup and operation of the Call Centre, including but not limited to telephone connections, furniture, staffing, and security arrangements.

The following minimum facilities and provisions shall be ensured at the Call Centre:

a. **Fully Computerized Control Room –** Equipped with necessary hardware and software for handling complaints and monitoring service operations.

b. **Telephone System –** At least two (02) Toll-Free Numbers shall be provided for public access. (Toll Free number will be property of the AMC after 5 years)

c. **Power Backup –** An inverter system with a minimum backup capacity of 3 (three) hours must be installed to ensure uninterrupted operations.

d. **Operating Hours –** The Control Room shall remain operational daily from 8:00 AM to 12:00 Midnight (i.e., 16 hours per day).

e. **Complaint Management –** A Complaint Register shall be maintained, and a unique complaint number must be provided to each complainant at the time of lodging the complaint.

f. **Daily Reporting –** A computerized progress report detailing the daily work and status of complaints shall be submitted to the department.

xviii. MAN-POWER DEPLOYMENT & OFFICE INFRASTRUCTURE: -

A. The Contractor has to set up his own office cum store for the purpose of this contract, in every zone. No activity of the contractor other than this contract shall be permitted in such office cum store. One Separate centralized warehouse shall be provided during whole contract period. It will be in the Scope & responsibility of the Contractor to safeguard the material under his possession.

B. The contractor should also maintain register for complaints as directed by the Engineer in charge. He should also report about the disposal of the complaints on day-to-day basis to the Engineer in charge.

C. The contractor should also maintain the register about the cable fault as directed by Engineer in charge.

a. No relaxation in qualification, experience & quantum of staff shall be given.

b. The staff deployed by contractor except helper must have relevant degree or license or competency certificate as required under statutory requirement of competent authority. The contractor shall have detailed biodata of the personnel employed by him and he shall submit the copies of qualifications, experience etc. to the satisfaction of Engineer in charge.

c. All the employees of the contractor must have Valid Identity Cards with photographs which shall be issued by the contractor with Company's Stamp and duly signed within 15 days of order, without which the Ahmedabad Municipal Corporation will not allow them to work. All the staff must have dress code and wear safety jacket/shoes/hand gloves/helmets etc., while working in field.

d. Team Leader, All Manager and above level Employee up to Zonal Engineer shall be on roll of the company.

Special Note: - Over and above this is comprehensive contract of O & M of whole streetlight lighting system of AMC hence all components/part consist for smooth operation of streetlight system are in the scope of O & M contractor (i.e. Streetlight poles, all existing cables network, section feeder panels, fittings etc.). Hence Contractor is bound to maintain whole streetlight systems in healthy condition and liable in case of any fatal/non-fatal accident. Contractor is solo responsible for fatal/non-fatal and damages to third party properties, and liable to give compensation.

2. For attending cable fault of one ward (AMC ward area) streetlight poles, there should be minimum one gang of one cable jointer and two labours separately including Holidays/Sundays. Also, contractor has to depute additional cable jointing team as and when required as per instruction of engineer in-charge. Over and above contractor should have to provide latest (technologically) cable fault locator zone wise and should calibrate every year. Contractor also has to provide multi meter to every ward technician.

Time Limit for Repairing Streetlight Poles:

I. Main road (except cable fault) within 48 hours (means 2 days)
II. Internal road/society (except cable fault) within 72 hrs (means 3 days)
III. In case of cable faults within 96 hrs. (means 4 days)
IV. In case of RO permission needed - within 48 hours (means 2 days) after getting RO permission.
V. In case of Shock Complain – Immediately

3. The work includes switching ON and OFF the streetlights at various points at pre- determined time and given period as per instruction of Engineer in-charge on day-to-day basis.

At present more than 95% astronomical timers in feeder pillars (Total feeder pillar are appx. 4494 Nos.) and there are few timers for those timer's successful bidders shall have to set the time fortnightly as per sunset and sunrise time as per schedule given.

In future any up gradation like CMS (City Management System) installed that have to be maintain and monitor. Same way few already lights are smart LED light fitting that also and in future converted existing light into smart light, that have to be maintained and monitor.

A. All required materials for LED/MH streetlights system such as Lamps, Ballasts, capacitors, ignitors, LED drivers, surge protector devise, time switches/astronomical timer, contactors, relays, junction box, detecting the fault, pole wire, fuses, SMTPN, cable lugs, earthing jumper, base cover etc., (excluding cable, cable jointing Kits, cable fault rectification by excavation, Street Light pole, Light fixtures and bracket) in the scope of work. All material required of the approved make for maintenance must be supplied by principal contractor, Subcontractors have to do labour work only.

B. Cable is to be issued from the AMC store, in which carting, loading, unloading and transporting the material to the respective zone will be in the scope of Contract. The dismantled Pole / Poles, if any is to be deposited in AMC store is also in the scope of Contract with proper record on Principal contractor letter head with responsible authority sign and in presence of Principal contractor responsible staff.

C. Dismantling & erection of damaged poles along with required accessories shall be done at extra cost as per instruction of engineer in charge. For this job only Poles will be provided by AMC. Damaged material is to be returned back by contractor to AMC store. Contractor shall arrange for carting, loading, unloading and transporting Poles provided from AMC store for this work is in the scope of Contract with proper record on Principal contractor letter head with responsible authority sign and in presence of Principal contractor responsible staff. Material supplied by principal contractor will be paid as per section B of Price Bid or as per GOG SOR.

D. It will be in scope of contractor to arrange for required height pole to replace damaged pole from the AMC store, it includes carting, loading, unloading and transporting material (without any extra cost).

4. The job includes providing and fixing of all required materials as per the A.M.C. approved make during maintenance and repairs of streetlight.

5. The streetlights which are out of order shall have to be repair the faults of the main road & internal road/society (except cable fault) within 48 hours (means 2 days) & 72 hrs (means 3 days) respectively from receiving the complaints and shall take steps immediately to correct any deficiencies that may exist. For the cable faults, this time limit of fault rectification shall be 96 hrs. (means 4 days) by repairing / replacing of parts / sets which have gone out of order from the date of complain. However, if Road Opening Permission is needed, then in such case the cable fault rectification time shall be 48 hrs, from the time of

receipt of Road Opening Permission by AMC either verbally or in written. (After getting road opening permit or verbal instruction of RO of AMC engineer). In case of any electric shock / emergency / theft of power / theft of any materials etc. the contractor should attend and rectify immediately and inform to concern officer. Contractor has to lodge police complaint for the same as directed by engineer in charge.

6. The Bidder shall have to furnish a list of adequately qualified personnel with him.

7. All certificates/evidence shall be duly attached. All work experience details should be furnished with attested copies of evidence.

8. The Bidder must provide full-fledged local office with technical personals within one month of awarding the contract. He should clearly state the arrangement of staff available with them in separate sheet. Relevant sheet must be clearly filled in. Contractor has to arrange maintenance office in each zone also.

9. The Bidder should have special machinery public equipment like ladder mounted vehicle, hydraulic vehicle, S.S. Ladder, transport vehicles required for this work. List of such possession with proof must be furnished after award of contract.

10. The contractor shall have to engage only relevant degree or certificate or licensed holder electricians and wireman under this contract and necessary safety equipment's should be given to his employee/ staff. The contractor shall have to give list of the name of manpower to be engaged for the work with passport size photographs, certificates and qualification etc. at the time of agreement. The contractor shall submit at true copy of insurance of his employees for all the contract periods. Contractor shall have to arrange manpower as per Clause No: -15 of General Terms & Condition.

At present monsoon season is considered from 15th June to 30th September, if any deviation will be informed accordingly.

11. The contractor shall be fully & solely responsible for any damage and or for loss of life of his own employee or any outsider/animal due to any accident, electric shock, fire, hazards occurred related to streetlight system during the work or after completion of work. AMC shall not be held responsible for any unforeseen incidents, mishaps, fatal accident to the employees appointed or any outsider/animal and engaged during the period of contract and they shall be covered by an adequate insurance by contractor. However, in case of any fatal accident which arises during the o &m work, it will entirely be the responsibility of the contractor.

In case of any fatal or non-fatal accident occurs during anytime than responsible Principal Contractor /zonal engineer / zonal subcontractor/ Manager of Principal contractor have to immediately rush to the site within one hour and give the factual report to the department from the concern site/ place. Then after contractor has to arrange/ take necessary action in order to resolve the site situation. This also includes intimation to the concern discom company wherever necessary.

Special Note: - Over and above this is comprehensive contract of O & M of whole streetlight lighting system of AMC hence all components/part consist for smooth operation of streetlight system are in the scope of O & M contractor (i.e. Streetlight poles, all existing cables network, section feeder panels, fittings etc.). Hence Contractor is bound to maintain whole streetlight systems in healthy condition. In case of any fatal/non-fatal accident, an independent committee must be formed to identify fault and liability. If the contractor is found at fault, then the contractor is responsible for fatal/non-fatal damages to third-party properties and liable to give compensation as per the committee's recommendation.

- Minimum compensation of human life is Rs. 10.0 lacs borne by tenderer is mandatory.
- Any causality of animal to be sort out by the tenderer.
- If tenderer fails to pay compensation in above both cases than AMC will pay the same compensation and charges of compensation amount with additional 20% penalty on above said fix amount from running bill or SD shall be penalized.

To maintain safety of lives and systems should be the utmost priority for the contractor involved in this O & M of street lighting system. The contractor should take and ensure enough safety measures in the O & M of street lighting system. For this all-safety equipment's are to be provided to the manpower engaged in O & M of street lighting system.

It is in scope of contractor to deal with any legal matter/ any compensation in case of any power theft, material theft, fatal accident, damage, procedure of NOC required from Electrical Inspector or any liaison work. In such power theft case FIR should be lodged by contractor.

12. The contractor shall have to observe all provision under various acts like labour contract act, minimum wages act, workman compensation act, R.P.F.C. act, Indian electricity act etc. and the financial implication arising due to breach of any act shall be fully borne by contractor. The contractor shall be responsible / liable to pay the insurance of the employees and material as well as third party insurance, income tax, sales tax, Service tax or any other taxes payable to Government for carrying out the work.

13. The contractor shall submit record of streetlight complains on day-to-day basis in prescribed format given by streetlight department and submit soft copy with monthly bill.

14. The contract period is for five years, subject to review of performance every six months. The contract will be terminated without any notices if the working of the agency is not found to be satisfactory. The performance of the agency will be reviewed every six months. If the contract period is terminated in between, the agency will have no claim; in case of any dispute the decision of Municipal Commissioner of A.M.C. will be final and binding.

Contract Extension and Security Deposit

In exceptional circumstances, the Ahmedabad Municipal Corporation (AMC) may, in writing, request the Tenderer's consent to extend the contract period. The Tenderer shall be bound to grant such an extension as requested by AMC. Consequently, the Tender Security (Security Deposit) must also be extended by the Tenderer for the corresponding duration.

If the Tenderer refuses to grant the requested extension, AMC reserves the right to:

- Initiate appropriate action against the Tenderer, as deemed necessary; and
- In exceptional circumstances, the Competent Authority may also forfeit the Security Deposit.

A Tenderer agreeing to the extension shall not be permitted to alter or modify any terms or conditions of the original tender or contract.

The contract period may be extended strictly in accordance with the original terms and conditions of the agreement. No separate or new agreement shall be required for such extension.

15. Contractor shall have to maintain at least 97% of streetlight in working condition out of total streetlights handed over for maintenance. The contractor shall be fully responsible, if any streetlight materials / fittings found stolen / damaged by local people and will have to replace the same and Payment will be made as per the SITC rate. The security of streetlight once handed over rests with the contractor. note: Burning rate of streetlight will be calculated on the basis of weekly average of departmental night rounds.

16. No payment shall be made for repairing work in the event of short circuit on account of faulty repairing or use of inferior quality of materials and the same shall have to be rectified by the agency at his own cost.

17. List of items and its approved make is given separately in Annexure and principal contractor shall have to supply the same quality of materials. Contractor shall have to supply and keep in stock, the major items of streetlight maintenance of materials irrespective of actual consumption on pro-rata basis and as per annexure.

18. The rates to be quoted by agency shall exclude only GST and Includes all other taxes taxes like R.P.F.C., insurance etc. Necessary income tax, R.P.F.C. etc. shall be deducted from the bills as per the rules. Only GST will be paid extra if applicable.

19. Increase/decrease in statutory govt. taxes/duties will be paid/ recovered on pro-rata basis.

20. In future, if AMC installed new streetlight poles, the contractor should do the O & M work of the new installed streetlight poles at the current applicable rates and terms of the contract.

21. The successful bidder shall have to facilitate 24 hour working smart mobile phone to all engineers.

22. Quantity shown in the price Volume-III is approximate. Payment will be made on actual No. of poles after joint verification by AMC & contractor within two months. During the joint verification with reference to general terms & conditions – clause no.1, if pole numbering not found on streetlight pole, contractor has to give the same to that pole without any extra cost.

23. Maintaining all the luminaries, Junction boxes, poles, Feeder pillar, cable termination with glands and lugs, etc. as specified in the tender documents. Any incomplete work will be considered as non-working of streetlight and penalty clause as per non-working of streetlight poles shall be applicable.

24. For repairing and maintaining the streetlight, all the material / components required shall be in scope of contractor. It excludes cable, cable jointing Kits, cable fault rectification by excavation, Street Light pole, Light fixtures and bracket.

25. The contractor has to submit patrolling report of all the streetlight poles of main road and internal road (Including society and chawls) in every fortnight. (i.e. twice in a month). For the same the contractor has to submit the patrolling schedule to the department in advance. Computer generated action taken report should be submitted every week. Documentation should be on Principal contractor letter head with responsible authority sign.

Tenderer has to provide round the clock of Stand to Vehicle in each zonal office of AMC, for street light patrolling and routine work check-up. The same should be in good condition and approachable to any area in any season. The Vehicle registration should not be older than 15 years and it should be as per RTO rules & regulations. (Preferably SUV vehicle only) In case of breakdown or non-availability of driver, contractor has to make alternate arrangement.

26. Maintenance team should be available in all zones on all days including holidays / Sunday. As explain in General Terms and condition Clause no 15.

27. At the time of cable fault condition, if any excavation of road / central verge / foot path, paver blocks, etc. is to be carried out, the contractor has to take approval of AMC and only after getting the approval in writing or verbally, contractor can excavate the site.

- Cable joint should be used of standard make and as per approved make list or SOR approved.
- In case of multiple joints (two or more) contractor has to replace with new cable by taking permission of ward/zonal in charge of AMC.
- Cable joint should be marked with date and name of Jointer.
- Cable supply will be in contractor's scope at an optional approved rate as per department instruction if required.

28. In the case of cable fault, contractor has to use approved make cable jointing kit and no joints are allowed without the jointing kit.

29. After completion of cable fault reinstatement work of paver blocks in societies, chawls, slum is to be done only at places where it is required by AMC or the written instruction of AMC's engineer in charge.

30. The contractor has to check earthing value at all section pillars once in year and for all poles twice in a contract period (five years) as part of preventive maintenance and the value should be less then 2 ohm. If the earthing value does not meet the requirement, the contractor has to take necessary action regarding the same and maintain the earthing value at an optional approved rate.

31. Contractor has to submit monthly O & M Bill on along with computer generated biometric attendance report, GPS based vehicle report, material consumption report, scheduled night round with action taken report on Principal Contractor's Letter head.

32. As part of preventive maintenance contractor has to do following, which is in the scope of work.

a. Contractor has to do R-Y-B phase wise marking on each pole.
b. Contractor has to make a schedule of load balancing, and a sheet of all section present every quarter.
c. Preventive maintenance of Each Streetlights Section Feeder Pillar should be taken once in a year in all means and should check earthing value of the same and reported along with.
d. Pole painting and numbering will be done as and when required/ instruction from department, it treated as an optional item work and payment will be paid as per approved optional rate.
e. Contractor has to prepare single line diagram of section wise streetlight system within one year of awarding contract.
f. Each and every pole's loop must be terminated with proper cable lugs, loop cap and armoured to armoured cable earthing must be done with copper wire.
g. Contractor has to submit schedule of preventive maintenance of all streetlight pole and Section pillar. Schedule should cover 50% of streetlight pole and 100% streetlight section feeder pillar yearly. Report should submit quarterly.

33. Setting up of Local Office:

33.1 The successful tenderer shall have to establish a local office at Ahmedabad city. For setting up this office contractor has to manage telephone connection, furniture, staff, security guard etc. at his own expense. Following provisions will be made available at the local office:

i. Fully computerized office within 3 months from LOI.
ii. Provision of inverter having the backup for at least 3 hours.
iii. Computerized progress report of the daily work to be provided to the department.

33.2 The Contractor shall establish office and receive calls for all problems experienced in the operation of the system under this contract and to rectify the faults of the main road & internal road/society (except cable fault) within 48 hours (means 2 days) & 72 hrs. (means 3 days) respectively from receiving the complaints and shall take steps immediately to correct any deficiencies that may exist. For the cable faults, this time limit of fault rectification shall be 96 hrs. (means 4 days), from the date of receipt of Complaints. However, if Road Opening Permission is needed, then in such case the cable fault rectification time shall be 48 hrs, from the time of receipt of Road Opening Permission by AMC either verbally or in written. (After getting road opening permit or verbal instruction of RO of AMC engineer)

34. If complaints are not rectified to full satisfaction of Engineer-in-Charge within 10 days, then AMC reserves right to get the work done by any outside agency on risk and cost basis and amount paid for such works will be recovered from

the running bills or amount deposited by contractor against Performance Security.

35. Details of existing streetlight arrangements are as per annexure.

36. Contractor has to remove unauthorized cables, hoarding, banners, stickers from AMC streetlight poles as per instruction of engineer in charge without any extra cost.

37. In case of any VIP movement, AMC/VIP event contractor has to deploy additional required staff for that particular area/ward without any extra cost.

38. Complete SITC of the work for the Street Light work for new installation / Upgradation work.

SCHEDULE OF SUB ORDER WORK INITIATION FOR TIME LIMIT

	Tine for Site marking and material mobilization from sub order date	Work completion	Penalty for each day after stipulated tine	Remark
Supply testing erection and commissioning of one to five streetlight poles of each separate sub work order	10 Days	10 Days	If the tenderer fails to execute the work as per schedule given herewith from the date of work order as specified in the Contract, the penalty will be charged 2% per week to maximum limit to 10% of the work order of the particular work.	If there is any objection/ obstruction/ Specific time required for procurement during execution of streetlight poles. Agency has to submit a letter about objection or site clearance. In such cases time limit for penalty will be considered from sub order initiation schedule only after getting site clearance.
Supply testing erection and commissioning of six to ten streetlight poles of each separate sub work order	10 Days	15 Days		
Supply testing erection and commissioning of eleven to twenty-five streetlight poles of each separate sub work order	10 Days	20 Days		
Supply testing erection and commissioning of twenty-six to fifty streetlight poles of each separate sub work order	15 Days	30 Days		
Supply testing erection and commissioning of fifty-one to 100 streetlight poles of each separate sub work order	20 Days	45 Days		
Supply testing erection and commissioning of 101 to 150 streetlight poles of each separate sub work order	40 days			

39. SITC of CMS work for the streetlight and Feeder pillar. And Its Operation, Recurring cost for various connectivity for 5 years and Maintenance and Operation with Staff deployment. PREPARE SOFTWARE AND MOBILE

APPLICATION FOR MONITORING AND REMOTE OPERATIONS OF STREETLIGHT SYSTEM SUITABLE TO INTEGRATE WITH SMART CITY DASHBOARD, e-GOVERNANCE PLATFORM. Also to integrate the Existing LMS / CCMS systems in the same API / Dashboard for one system monitoring.

40. Details of the existing fixtures under guarantee:

SITC WORK LED Light Fixtures Guarantee Details								
YEAR	**18/20W**	**45W**	**60W**	**60W**	**100W**	**120W**	**135W s Above**	**Guarantee Period**
2020-21	4,018	2,550	285	2,441	43	2,160	4,060	1.5 year remaining
2021-22	4,660	1,464	217	887	0	2,286	1,740	2.5 year remaining
2022-23	5,041	630	662	622	163	2,861	1,262	3.5 year remaining
2023-24	3,041	1,837	1,021	1,158	653	2,604	2,135	4.5 year remaining

Note: -

I. Above shows the LED fixtures which are currently under the guarantee period of SITC work. The spares of such LED light fixtures shall be provided by AMC / SITC contractor till the completion of guarantee period. On completion of this guarantee period all spares are to be borne by the successful bidder.

Important Note: -

I. From all the above materials whichever materials replaced are with same specification as installed.

II. Material which is necessary for the maintenance work and not specified in the above list should be used after consultation and approval of Engineer in charge

41. The Contractor shall have to maintain the minimum two months quantity of required material per annum as Reorder quantity for smooth operation. Stock of materials shall be kept in sub store of each zone.

42. Manufacturer's test certificates shall be furnished for all material / equipment used during contract as per instruction of engineer in charge.

43. The contractor shall also maintain all the feeder pillars in good working condition.

44. Each pole with bracket and feeder pillar shall be cleaned, painted and numbered as per instruction by engineer in charge for which extra payment shall be paid by the Ahmedabad Municipal Corporation. The painting shall include applying one coat of Red Oxide primer and two coats of Aluminium paint/PU paint.

45. The Contractor shall have to clean luminary at least once a year. The record of the cleaning of each luminary/ feeder pillar shall be maintained by the Contractor. The schedule for cleaning of luminaries / feeder pillar shall be submitted by the contractor.

46. The Ahmedabad Municipal Corporation continues to erect new streetlight poles at various places in the city of Ahmedabad as per requirements. The contractor shall be required to maintain the same as per the instruction of the Ahmedabad Municipal Corporation from time to time and the rates applicable for the same must be as per tender rates. And scope includes the geotagging of all poles, high masts and SFP. Also, CMS systems to be implemented on the newly installed poles, HM, and SFP as per the CMS BOQ rates.

47. If Ahmedabad Municipal Corporation requires to install temporarily flood light / search light fittings etc. on existing streetlight poles, the contractor shall install and remove the same as per the instructions of engineer in charge without any extra cost. The flood light or other fittings up to 50 fittings per zone total for such purpose shall be provided by contractor without any extra cost. If quantity required is more than 50 fittings per zone, remaining fitting will be provided by the Ahmedabad Municipal Corporation to the contractor which shall be credited to the Ahmedabad Municipal Corporation in healthy condition after removal of the same.

48. If it is required to replace the pole, cable and fittings failure due to unforeseen circumstances like accident, natural calamities, riots, during demolition, road widening work, encroachment, monkey jumping etc., the contractor shall carry out the same. For which material will be provided by AMC / Payment will be given a per the SITC rates from this tender and extra payment for labour charge shall be paid by the Ahmedabad Municipal Corporation.

49. On expiry / termination of the contract, the contractor shall be required to hand over the complete streetlight systems to the Ahmedabad Municipal Corporation in healthy working condition, otherwise the cost of making healthy condition shall be recovered by the Ahmedabad Municipal Corporation from contractor' final bill.

50. While quoting the tender miscellaneous charge like labour, rent, carting, loading & unloading, transportation and arrangement of other equipment necessary for work at site should be kept in view by tenderer.

51. All types of liabilities and responsibilities towards any damage, accident or death of the contractor's employee or any outsider human or animal shall be in contractor's account.

52. Contractor should take all precautionary measures to avoid accidents during excavation of cable trench, cable laying work etc. and operation / maintenance of street- light poles.

53. In case of installing new feeder pillar, contactor shall have to coordinate to get the power supply from Torrent Power Ltd./UGVCL/MGVCL. Ahmedabad Municipal Corporation shall pay the official charges for getting supply connection. Test report for the same shall be provided by contractor.

54. Any Urgent/VIP complains /works must be attended immediately.

55. The register for repairing / replacement of items of the streetlights should be strictly observed / maintained by the contractor. In the event of non-working of streetlight, contractor shall be liable to pay penalty as stated elsewhere in the tender documents.

56. Old/condemned material against replacement shall be deposited in the Municipal Store and receipt of the same must be taken and submitted to concern zone.

57. Approx. 9800 Nos. LED fitting of various category supplied under ESCO project in West Zone and for entire contract period replacement of required material for LED fitting will be provided by ESCO company / AMC. (period is from November-2016 to October-2026) Tenderer must consider replacement labour and adjoining labour work in the scope of the bidder.

58. AMC has approx. 227 Nos. LED High mast having 8 to 12 nos. of 110w LED fitting per high mast and 18 nos. conventional High mast having 8 to 12 nos. of 2 x 400w HPSV/MH fitting per high mast. AMC is in plan to convert all conventional high mast into LED shortly.

59. Successful bidder should have maintain Streetlight poles/high mast/BRTS Poles /Ring Brackets on comprehensive basis (excluding cable, cable jointing Kits, cable fault rectification by excavation, Street Light pole, Light fixtures and bracket) in the scope of work.

60. AMC will handover various category wise LED drivers available at AMC stores and details as per (43). Further LED streetlight which falls under guarantee period under the SITC contractor's liability as per (43). At the same time all spares must be mandatory available with the successful bidders to avoid any delay in the operation of the streetlights. If AMC or SITC contractors fails to provide under guaranteed materials (Given as per 43) will be reimburse to the Bidder as per prevailing market rate.

61. The SITC (Supply, Installation, Testing, and Commissioning) work scope includes geotagging of all newly installed poles, High masts, SFP and Central Monitoring System (CMS) units.

62. Fatal Accident / Third Party Fatality

- Compensation, liability and reporting obligations shall be strictly as per AMC tender.
- The bidder shall ensure insurance coverage and compliance.

63. Compensation & Insurance

- Comprehensive insurance for works, manpower, third party, and assets shall be arranged by the Execution Partner.
- Back-to-back obligations as per AMC tender.

64. Coordination with Land Authorities

- The bidder shall coordinate with AMC, DISCOMs, traffic police, and other local authorities for smooth execution.
- Permissions and right-of-way clearances shall be arranged as per AMC tender requirements.

65. Compliance with Statutory Regulations

- All labour laws, safety codes, and statutory compliance requirements as per AMC tender shall apply.
- The bidder shall indemnify EESL from statutory non-compliances.

66. For Part C &D of technical specification related to LMS/CMS & AI , the bidder has to demonstrate its capabilities before the start of the work to EESL.

5. Technical Specifications

The detailed Technical Specifications is attached as Annexure – B (Volume II of AMC tender document).

6. Bill of Quantity

As defined in form of financial bid to this RFP (Price Bid).
The bidder shall quote a percentage increase (+) or decrease (–) on the base rates.

The quoted percentage shall apply uniformly across all BOQ items, unless otherwise directed by AMC/EESL.

7. Liquidated Damages

1. The nos. of streetlight which are not made in working conditions as mentioned in scope of work, payment for the same pole will be deducted for full month period.

2. The average burning rate of streetlights shall not be less than 67% during the month.

Sr. No.	PENALTY FOR O & M WORK	Penalty in Rs
1	Burning rate between 96% & 97%	10/- Per Pole per month
2	Burning rate between 95% & 96%	15/- Per Pole per month
3	Burning rate less than 95%	20/- Per Pole per month
4	Streetlight panel disconnected/not repaired within 24 hrs. (Except DISCOM fault)	500/- Day (Max 20,000/-)
5	Less person	1250/- Per Person Per day
6	Ladder mounted/Hydraulic- Non healthy vehicle/less vehicle	2500/- Per day per Vehicle
7	Non-compliance of switching ON/OFF as per schedule	500/- Per SFP
8	Non-Information of new person to AMC within 48 Hrs	500/- Per person
9	Not wearing uniform, safety equipment's	300/- Person per day
10	Making extra circuit ON other than faulty circuit	300/- Per incident
11	Negligence in replacing damaged JB	200/- Per pole
12	Penalty of Reopen complaints	200/- Per complaint
13	Non-Submission of Night Round report any single day	1000/- Per day
14	Fake Night round report	2000/- Per day
15	For non-working of streetlight pole as per stipulated time limit. (Due to error of contractor)	payment for the same pole will be deducted for full month period.
16	cable laying above 600 mm depth from ground level	300/- Per cable span
17	If cable fault not solved in stipulated time for first 3 day	500/- Per day will be charged
18	If cable fault not solved more than 3 Days	1000/- Per day will be charged

Sr. No.	PENALTY FOR O & M WORK	Penalty in Rs
19	For specific work like inclined poles, repairing of section door, etc. failure of this works within 3 Days	1000/- Per incidence

3. If the streetlight panels to be closed due to the fault on either supply company side or panel side, then the contractor will coordinate with the company or replaces the proper material and restart the streetlights within 24 hours otherwise Rs. 500/- per panel per day (only for panel fault) liquidated damages will be charged, subject to maximum of Rs. 20,000/- which will be deducted from the monthly bills.

4. If on any day, less no. of persons is present, in that case the penalty at Rs.1250/- per person / day will be recovered. And if the agency fails to provide no. of mention ladder mounted vehicle / hydraulic vehicle (boom van)/ Patrolling vehicle (SUV) in healthy condition, than the Rs.2500/- per day per vehicle will be deducted from the monthly bill of the agency.

5. Maintaining all the luminaries, Junction boxes, poles, Feeder pillar, cable termination with glands and lugs, etc. as specified in the tender documents. Any incomplete work will be considered as non-working of light and penalty cause as per non-working streetlight shall be applicable.

6. Switching ON and OFF of streetlight poles as per schedule given by AMC and the contractor has to submit the report of the same in every fifteen days' time. If not followed the same, the penalty of Rs. 500/- per day will be charged.

7. After the submission of list of staff, the identity cards should be issued to all the staff by the contractor. If in any case the staff person change, the information of the same should be given to the AMC by the contractor within 48 hours, failing which penalty of Rs. 500/- per person will be charged.

8. Any staff found without dress code; safety equipment's will be penalized Rs. 300/- per person.

    I. Tenderer has to make ON of particular circuit for attending complain. If found not doing so Rs. 300/- per incident penalty will be charged.

    II. Damaged Junction box should be replaced on immediate basis in negligence of the same Rs.200/- per pole will be charged.

    III. Re-open complain should be closed again only after confirming with the complainer and also take evidence (like real time app, real time pics) of complain sorted out otherwise Rs.200/- per complain penalty will be charged.

IV. Tender has to lay cable at below 600 mm depth from ground level otherwise penalty of Rs.300/- per cable span between two poles will be charged. If in any case it is not possible to lay at mentioned depth, contractor has to justify the reason for above to concern zonal in charge. If required/instructed by engineer in charge, it should be laid in suitable size of DWC pipe.

V. For any cable fault not solving after stipulated time for first 3-day penalty of Rs. 500/- per day will be charged then after for each day penalty of Rs. 1000/- will be charged till the cable fault solved. If reason attributed to O&M contractor.

VI. For not submitting night round report of any single day penalty of Rs. 1000/- per day will be charged.

VII. If AMC notice that the night round report given are fake than penalty of Rs. 2000/- per day will be charged. - In case of any instructed work is by engineer in charge is not done in stipulated time than competent authority reserves the right to carry out the work by other agency at the approved tender rates.

VIII. For any pole which falls due to accident or any other means, than it will be in the scope and responsibility of the contractor to make necessary arrangements to reinstall the pole within three days. In addition to this, it will also the responsibility of contractor to deal with the person for any damage due to falling of pole and settle the matter by compensation. However, if any legal matter arises out of this than also it will be the entire responsibility to sort out legally.

IX. Whenever the department instruct the contractor for any specific work like to straighten the inclined poles, to repair section door, to lay the cable up to the stipulated depth etc than the contractor has to take necessary action to complete the work within three days. In case of failure of this works Rs. 1000/- per incidence after intimation through letter or what's app or SMS.

9. For maintenance of streetlight, required material must have to purchase by the contractor as per AMC's approved make. If contractor is not supplied material as per approved, make then it will be rejected by engineer in charge.

Liquidated Damages for SITC Work

1. Penalty will be charged for not supplying nonperforming LED fitting after getting first intimation. Within 30 days no penalty will be charged, after 30 days, for each week Rs. 3000/- per week will be penalized up to 8 weeks. After that AMC will

procure LED fixture and the cost of that fixture and penalty charge will be deducted from the tenderer's security deposit.

2. Also following penalties is to be levied as per the work not carried out as per tender:-

Sr. No.	PENALTY FOR SITC WORK	Penalty in Rs
1	If Cable laying below 600 mm depth from ground level penalty will be deducted per Cable span between two poles	300/- Per Span
2	If pole muffing Not done as per drawing, then penalty will be deducted from bill	500/- Per Muffing
3	If Earthing not done in proper depth, then penalty will be deducted from bill	600/- Per Earthing
4	If the streetlight poles with Decorative bracket not painted with one coat of anti-corrosive paint & two coats of paint	250/- Per Pole
5	If the pole numbering not done on streetlight poles penalty will be deducted	125/- Per Pole
6	If the streetlight pole's cable entry pipe not painted with one coat of anti-anti-corrosive paint & two coats of paint.	50/- Per Pipe
7	If the section pillar without foundation and without high bricks work and finishing with plaster at all the four side of the panel	1000/- Per SFP

Liquidated Damages for delay Maximum

10% of the cost of remaining work up to the date of approved or extended time limit. (As per Circular no. 9, dated 18/05/2012 issued by M. C.) In the event of exceptional circumstances, the liquidated damages may be increased beyond the 10% threshold, subject to the prior written approval of the competent authority

8. Performance Guarantee & Security Deposit

Within twenty-eight (28) days of the receipt of the Notification of Award (NOA/LOA) of Contract from EESL, the Contactor shall furnish Security Deposit (SD)/Contract Performance Security (CPS) in the form of a Demand Draft (DD) / Bank Guarantee (BG) / Insurance Surety Bond / NEFT of value equalling 5% of the total Contract value plus EESL Margin i.e., contract value awarded by AMC. The SD/CPS Bank Guarantee must be valid to cover the Project Execution (9 Months) + Comprehensive Maintenance duration (60 Months) + Three (3) months' claim period.

Additional Security Deposit

If the bid price offered by the Successful Bidder is lower than -15% (Below 15%)of the Estimated Cost of Additional, SITC and CMS work, then the Additional Security deposit shall be given in the form of DD. The security deposit will be calculated @ 20% of the difference in the [(a) Estimated Cost of work (as mentioned in BOQ)-15% of the Estimated Cost of work] and [(b) the Bid Price offered by the Selected Bidder for Optional work, SITC Work and CMS work].

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.

In case where CPG has been called for more than 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:

"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."

Apart from above, it is also to be ensured that vendor will submit an undertaking on its letter head having the following clause.

"(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).

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 Attachement-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.

Failure of the bidder(s)to comply with the requirements of IFB/Tender/NIT/LOA shall constitute sufficient grounds for the annulment of the award and forfeiture of the SD/CPG. The CPG shall be released after completion all contractual obligations including warranty obligations.

BG will be released on Closure of Contract.

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 ICIC0000007.

BG advising message – IFN 760COV / IFN 767COV via SFMS	
Field Number	**Particulars (to be mentioned in Row 1)**
7037	**EESL543840944**

9. Conditions for the Water Supply & Electric Supply

Water Supply:

The contractor shall arrange at his own cost, a suitable supply of piped wholesome water for the construction of the works and provide a satisfactory supply of potable water for drinking., washing, sanitation and cleaning down, The contractor will be responsible for all the costs where applicable of connection, meter installation, water consumed, water required for testing purposes,

disconnection and the laying, maintenance and ultimate removal of any distribution system around the site. If supply by AMC then AMC same will be charged as per Norms of AMC.

Electricity:

Electric supply shall be made available at the site by Contractor. Contractor must make his own arrangements with Electricity Supply Authorities and with other contractors to connect to and take a supply from such services, paying all costs in Connection therewith. Necessary Documents for getting Electric supply/connection will be arranged by AMC Authority. The Contractor shall be entitled to use such supply. Electricity as may be available on the site for purpose of the work and shall pay such charges as is fixed by the appropriate supply Authorities.
In case if there is any delay in supply of power site of any interruption or fault in the power during the work. No compensation shall be paid for idle labour staff, machineries and for use of diesel operating sets etc. as the case may be.

10. Payment Terms

Payment terms shall be as per following:

A. **Back-to-Back Payments:** All payments due in connection with the Principal Agreement (Agreement executed between *the client* i.e. AMC & *EESL* along with the *Consortium/Execution Partner discovered through this tender)*, shall be effected on a strict back-to-back basis. Any penalties, liquidated damages, or deductions levied by the Client under the Principal Agreement, to the extent attributable to the acts, omissions or defaults of the Execution Partner, shall be passed on to and recoverable from the Execution Partner.
B. **Receipt and Crediting of Funds:** All amounts received from the Client pursuant to the Principal Agreement shall be credited to the EESL's Account.
C. **Application of Waterfall Mechanism:** sequential order of application of funds received in the EESL Account, whereby disbursement at a subsequent level shall not be made until all obligations at the preceding level are fully discharged. Disbursements from the EESL Account shall be made in accordance with the Waterfall Mechanism, in the following order of priority:
    I. **Statutory Deductions:** In the first instance, all statutory taxes, levies, cess, duties, or other deductions required under Applicable Law shall be deducted and deposited with the relevant governmental authorities.
    II. **Retention of EESL Margin:** With second priority, EESL shall be entitled to deduct and retain its Derived Margin upon each receipt of payment from the Client. Such entitlement shall extend for the full duration of the Principal Agreement, and shall include payments relating to additional/extra works, variations, amendments, extensions, or any modifications thereof.

"Derived Margin" shall mean the profit retention of EESL calculated as follows: Derived Margin=5×(1–Discount)

and deducted from each tranche of payment received from the Client under the Principal Agreement.

III. **Disbursement to Execution Partner**: Subject to Clauses (a) and (b) above, the residual balance shall be released to the Execution Partner strictly against submission of valid invoice(s), duly supported by requisite documentation, and only to the extent of the Execution Partner's entitlement.

The payment shall be processed upon receipt of following documents: -

I. Acknowledgement of NOA/LOA and signing of Contract Agreement.

II. The Agency shall provide Contract Performance Guarantee (CPG)/ Insurance surety bond/ Demand Draft / Bank Transfer for the value as specified in the contract within Twenty (28) days including confirmation through SFMS. (CPG Clause mentioned elsewhere in the document).

III. The agency shall provide the copy of Insurance document as per GCC valid for the entire project duration.

IV. Payments will be released after submission of payment confirmation Slip / Payment advice of the client to EESL and confirmation of payment credit in EESL account. EESL may open ESCROW account with the consortium partner / successful bidder as per mutual agreed terms for payment withdrawal mechanism.

V. Agency will raise/submit GST Invoice as per above or as per the law for the time being in force, only after compliance of Payment Terms and its certification by EESL Officer in charge (OIC) or its authorized representative.

a) The payment shall be inclusive of all charges except applicable GST, which shall be paid extra. Taxes should be indicated separately on the invoice.
b) Payment shall be released upon the passing of GST- ITC to EESL within prescribed timeframe in GST Law and after deduction of all applicable Taxes (Direct and indirect).

VI. The amount will be payable in Indian Rupees as per payment milestones/ terms after successful completion of services rendered as per the deliverables mentioned in scope of work.

VII. No advance payment shall be made.

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.

11. Limitation of Liability

(i) As per AMC tender provisions.

(ii) Internal liability allocation between EESL and Execution Partner shall be as defined in the joint bidding document & Comprehensive Consortium Agreement.

12. Completion Timeline

Total time completion for Work is 60 months out of which the CMS work to be completed within 9 Months of the Work order, Including Integration at ICCC.

13. Defect Liability Period (DLP)

1 year after issuing the Completion Certificate (Except Light Fixture and CMS) 5 Year for the Light Fixture and CMS, AI System

14. Additional Conditions applicable on the bidder:

A) Contract Performance Guarantee, Earnest Money Deposit (EMD), Security Deposit & Additional Security Deposit, Performance Guarantee, Bid processing Fees, etc.

- In compliance to AMC tender requirements.
- To be furnished by the bidder, back-to-back with AMC's prescribed form and value.

B) Penalties, Defect Liability Period (DLP) & Liquidated Damages

- As per AMC Tender documents.
- The bidder shall bear penalties for delay, manpower shortages, performance breach, or SLA non-compliance.

15. General & Important Condition

(i) Any points that are not expressly detailed under the present Scope of Work but are necessary for the proper execution and completion of the contract shall be deemed to be included under this tender as per AMC tender Ref. No: 210879, although the Scope of Work, Technical Specifications, and Drawings as provided in the tender document at Annexure – A. Bidders are required to take due cognizance of the above while preparing and submitting their bids, and no claims on account of omission of such details shall be entertained at a later stage.

(ii) Notwithstanding anything to the contrary contained in this RFP or in any agreement to be executed pursuant hereto, it is expressly clarified and agreed that the conditions, scope of work, Service Level Agreements (SLAs), project-related fulfilment requirements, insurance obligations, liability provisions, and all other related terms and conditions including Tender compliances as stipulated under the AMC Tender Documents (including Volume I – Technical Bid, Volume II – Technical Specifications, Volume III – Price Bid, drawings) shall strictly prevail and govern the execution of the project. In addition, the General Conditions of Contract

(GCC) and Special Conditions of Contract (SCC) of EESL shall be applicable and binding upon the bidder/consortium partner for all purposes.

(iii) For avoidance of doubt, it is further clarified that in the event of any inconsistency or conflict between the AMC Tender Documents and the EESL GCC/SCC, the provisions of the AMC Tender Documents shall prevail solely in respect of the conditions, scope of work, Service Level Agreements (SLAs), project-related fulfilment requirements, insurance obligations, liability provisions, and all other related terms and conditions including Tender compliances, whereas the provisions of the EESL GCC/SCC shall prevail in respect of contractual governance, compliance, and other general conditions. Under no circumstances shall any such inconsistency or conflict be construed in a manner that limits, dilutes, or exempts the Execution Partner(s) from their obligations or liabilities, or that imposes any adverse financial, technical, or legal exposure upon EESL in relation to project execution and fulfilment.

(iv) In the event of any ambiguity or the need for interpretation of clauses, the decision of EESL shall be final and binding on all parties.

ANNEXURE - A

TECHNICAL SPECIFICATIONS

ELECTRICAL MATERIAL SPECIFICATION

1. Section Feeder Panel :

(a) STRUCTURE :

The Section pillar shall be of Double door type compartmentalized design so that circuit arc / flash products do not create secondary faults and be fabricated out of high quality CRCA sheet, suitable for Outdoor installation having doors on both the sides and if is operated from front side.

All CRCA sheet steel used in the construction of Panels shall be 16 SWG thick and shall be folded and braced as necessary to provide a rigid support for all components. Joints of any kind in sheet steel shall be seam welded, all welding slag grounded off and welding pits wiped smooth with plumber metal. The Section pillar shall be totally enclosed, completely dust and vermin proof and degree of protection being not less than IP:55 to IS:2147. Gaskets between all adjacent units and beneath all covers shall be provided to render the joints dust proof. All doors and covers shall be fully gasketed with foam rubber and /or rubber strips and shall be lockable.

A base channel of 40mmx 40mm x 5mm thick & 1300mm stand height shall be provided at the bottom. Openings shall be provided for natural ventilation, but the said openings shall be screened with fine weld mesh. Knock out holes of appropriate size and number shall be provided in the Panels in conformity with the number, and the size of incoming and outgoing conduits / cables. Alternately, the section pillar shall be provided with removable sheet steel plates at bottom to drill holes for cable / conduit entry at site. The section pillar shall be designed to facilitate easy inspection, maintenance and repair. The section pillar shall be sufficiently rigid to support the equipment without distortion under normal and under short circuit condition. They shall be suitably braced for short circuit duty.

The section pillar erected with cement concrete foundation and 45 cms high bricks work and finishing with plaster at all the four side of the panel, specifically on the base channel side as shown in drawing or as instructed by engineer in charge. The tenderer has to supply appropriate length of 100 Amp / 63 Amp (Respectively in feeder pillar type A and type B) capacity single core multi strand copper wire as load wire. (Tenderer has to consider the length from supply company meter to SMTP.)

Contractor has to supply as per department requirement. Department will inform for the same as per actual site condition and requirement. There is a change in size of enclosure only. Electrical component to be fitted inside are same for both sizes.

(b) Protection Class :

All the Outdoor Panels shall have protection class of **IP: 55**

(c) Painting :

The painting shall be one coat of primer and two coat of synthetic enamel colour.

(d) ELECTRICAL POWER AND CONTROL WIRING CONNECTION :

Terminal for both incoming and outgoing cable connections shall be suitable for 1100 V grade, aluminum / copper conductor PVC insulated and PVC sheathed, armoured cable and shall be suitable for connections of solderless sockets for the cable size as indicated on the appended drawings / BOQ. Power connections for incoming feeders of the main Panels shall be suitable for 1100 V grade aluminium conductor (PVC) cables. Both control and power terminals shall be properly shrouded.

(e) EARTHING:

GI earth bars of size 25 mm 6 mm or 30 mm x 5 mm shall be provided in the section pillar for the earthing. The frame work of the section pillar shall be connected to this earth. Provisions shall be made for connection from this earth to the main earthing bar coming from the earth pit on both side of the Section Pillar.

(f) LABLES:

Labels shall be provided on all incoming and outgoing cable. Single line circuit diagram showing the arrangements of circuit inside the section pillars shall be pasted on inside of the panel door and covered with transparent laminated plastic sheet.

(g) NAME PLATE:

A paint bold letters shall be painted on the outside of section pillar.

Inside the feeder compartments, the electrical components, equipment's, accessories like switchgear, control gear, lamps, relays etc. shall suitably be identified by providing stickers. Name plate shall be painted in English language, be acceptable.

(h) DANGER NOTICE BOARD:

The danger notice plate shall be affixed in a permanent manner on operating side of the section pillar.

The danger notice plate shall indicate danger notice in English and with a sign of skull and bones.

The danger notice plate, in general, meet the requirements of local inspecting authorities.

Overall dimensions of the danger notice plate shall be 200 mm. wide x 150 mm. high.

The danger notice plate shall be made from minimum 1.2 mm. thick mild steel sheet and after due pre-treatment to the plate, the same shall be painted white with vitreous enamel paint on both front and rear surface of the plate.

The letters, the figures, the conventional skull and bones etc. shall be positioned on plate as per recommendation of IS : 2551-1982.

The said letters, the figures and the sign of skull and bones shall be painted in signal red colour as per IS.

The danger plate shall have rounded corners. Location of fixing holes for the plate shall be decided to suit design of the Panels.

FUSE : Fuses shall be of 415 / 500 V and appropriate size of porcelain material.

CONTACTORS :

The contactors shall meet with the requirements of IS : 13947.

The contactors shall have minimum making and breaking capacity in accordance with utilization category AC3 duty. If the contactor forms part of a distribution board then a separate enclosure is not required, but the installation of the contactor shall be such that it is not possible to make an accidental contact with live parts.

Digital Astronomical TIMER :

Supplying & erecting approved make Digital Astronomical time switch having lithium cell 5 years operative and 48 hrs operate battery backup 1 channel day clock with 28 memory programmes, suitable to operate on 240V +/- 5%, 16A with, floating contacts Minimum switching setup time 1 minimum & LCD display. Also comprised permanent ON/OFF switching. Programming switches & housed in fire proof thermoplastic enclosure & transparent cover erected as required with necessary connection erected as directed.

ELCB :

Supplying & erecting approved make ELCBs / RCCBs conforming to IS: 12640 and having sensitivity of 30/100 mA and Short Circuit withstand capacity of 10 KA and suitable for operation on 3 phase and neutral 415V. Having characteristic of quick action & tripping with all advance feature & do not incorporate any electronic component for following Max. rating erected as directed.

INSPECTION :

At all reasonable times during production and prior to transport of the Panels to site, the supplier / contractor shall arrange and provide all the facilities at their factory for inspection. The Vendor shall provide necessary instruments, equipment's and labour for conducting the test and shall bear all expenses in connection with such tests. All tests shall be carried out in the presence of the client & TPI Agency and results shall be recorded in the prescribed forms.

TESTING :

Testing of section pillar shall be carried out at factory and at site as specified in Indian standards in the presence of consultant. The test results shall be recorded on a prescribed form. The test certificate for the test carried out at factory and at site shall be submitted in duplicate.

2 .Cables

2.1 Scope

This section shall cover supply of medium voltage cables.

2.2 Standards

The following standards and rules shall be applicable:

IS: 7098 XLPE insulated electric cables (heavy duty).
IS: 1753Aluminium conductors for insulated cables.
IS: 3961Recommended current ratings for cables.
IS: 8130Aluminium conductors for insulated cables
Indian Electricity Act and Rules.

2.3 Measurements

The cables will be measured in meters. The unit rate shall include cutting the cable into required lengths, packing, loading, unloading, insurance, transportation, delivery to stores/site as per work order, stocking in stores, testing of cables at stores etc. of medium voltage cable.

2.4 General

The medium voltage cables shall be supplied, laid, connected, tested and commissioned in accordance with the drawings, specifications, relevant Indian Standards specifications, manufacturer's instructions. The cables shall be delivered at site in original drums with manufacturer's name, size, and type, clearly written on the drums.

2.5 Material

The MV cables shall be cross linked polyethylene (XLPE) insulated PVC sheathed of 1100 volts grade aluminium or copper conductor, armoured and unarmoured heavy duty, conforming to IS : 7098 Part I IS : 1988 Part I. as asked for in the schedule of quantities.

2.5.1 All XLPE Aluminium/Copper Power cables shall be 1100 Volts grade, multi core constructed as per IS : 7098 Part-I of 1988 as follows :

a. Stranded Aluminium /Copper conductor of high conductivity up to 4 mm.² size, the conductor shall be solid multi strand above 4 mm.², conductors shall be concentrically stranded as per IEC: 228.

b. Cores laid up

c. The inner sheath should be bonded over with thermo-plastic material for protection against mechanical and electrical damage.

d. Armouring should be provided over the inner sheath to guard against mechanical damage. Armouring should be Galvanized steel wires or galvanized steel strips. (In single core cables used in A.C. system armouring should be non-magnetic hard aluminium Wires/Strips. Round steel wires should be used where diameter over the inner sheath does not exceed 13 mm; above 13 mm flat steel armour should be used. Round wire of different sizes should be provided against specific request.)

e. The outer sheath should be specially formulated heat resistant black PVC compound conforming to the requirement of type ST2 of IS: 5831-1984 extruded to form the outer sheath.

2.5.2 Conductor shall be of electrolytic Aluminium/Copper conforming to IS : 8130 and are compact circular or compact shaped.

2.5.3 Insulation shall be of XLPE type as per latest IS general purpose insulation for maximum rated conductor temperature 70 degree centigrade.

2.5.4 In Inner sheath laid up cores shall be bonded over with thermoplastic material for protection against mechanical and electrical damage.

2.5.5 Insulation, inner sheath and outer sheath shall be applied by extrusion and lapping up process only.

2.5.6 Armouring shall be of galvanized steel wire/ strip.

Galvanized steel flat strip / round wires applied helically in single layers complete with covering the assembly of cores.
For cable size up to 25 Sq. mm: Armour of 1.4 mm dia. G.I. round wire
For cable size above 25 Sq. mm: Armour of 4 mm wide 0.8 mm thick G.I. strip

2.5.7 Repaired cables shall not be used.

2.5.8 Current ratings of the cables shall be as per IS: 3961.

2.5.9 The XLPE insulated cables shall conform to latest revision IS read along with this specifications. The Conductor shall be stranded Aluminium/Copper circular/ sector shaped and compacted. In multi core cables the core shall be identified by red, yellow, blue and black colouring of insulation as following.

Core identification:

Two cores	:	Red and Black
Three cores	:	Red, Yellow and Blue
Four core	:	Red, Yellow, Blue and Black
Single core	:	Green, Yellow for earthing

Black shall always be used for neutral.

2.5.10 The XLPE insulated 1100 Volts grade power cables shall conform to latest IS and shall be suitable for a steady conductor temperature of 70 degree centigrade. The conductor shall be stranded Aluminium/Copper as called for in the Schedule of quantities. The outer sheath shall be as per the requirement of type ST-2 of IS: 5831 of 1984.

2.5.11 The cables shall be suitable for laying in racks, ducts, trenches, conduits and underground buried installation with uncontrolled back fill and chances of flooding by water.

2.5.12 Progressive automatic in line sequential marking of the length of cables in meters at every one meter shall be provided on the outer sheath of all cables.

2.5.13 Cables shall be supplied in non returnable wooden drums as per IS: 10418.

Both ends of the cables shall be properly sealed with PVC/Rubber caps so as to eliminate ingress of water during transportation, storage and erection.

2.5.14 The product should be coded as per IS: - 7098 Part-I as follows:-

Aluminium Conductor	A
XLPE Insulation	2X
Steel round wire armour	W
Steel strip armour	F
Steel Double round wire armour	WW
Steel Double strip armour	FF
Non-magnetic (Al.) round wire armour	Wa
Non-magnetic (Al.) strip armour	Fa
PVC outer sheath	Y

2.6 General

All cables shall be adequately protected against any risk of mechanical damage to which they may be liable in normal conditions of handling during transportation, loading, unloading etc.
The cable shall be supplied in single length i.e. without any intermediate joint or cut unless specifically approved by the client.
The cable ends shall be suitably sealed against entry of moisture, dust, water etc. with cable compound as per standard practice.

3 Testing

3.1 Finished Cable Tests At Manufacturer's Works

The finished cables shall be tested at manufacturer's works. Following routine tests for each and every length of cable and copy of test results shall be furnished for each length of cable along with supply. If specified, the cables shall be tested in presence of clients' representative & TPI Agency.

a. Voltage test

Each core of cable shall be tested at room temperature at 3 KV A.C. R.M.S. for duration of 5 minutes.

b. Conductor resistance test

The D.C. Resistance of each conductor shall be measured at room temperature and the results shall be corrected to 20° c. to check the compliance with the values specified in IS 8130 - 1976. Prior to dispatching cables and at the time of delivering the cables at stores, following tests shall be carried out:-
Insulation Resistance test between phases and phase to Neutral and phase to earth
Continuity test of all the phases, neutral and earth continuity conductor
Sheathing continuity test
Earth resistance test of all the phases and neutral
All tests shall be carried out in accordance with relevant Indian Standard Code of practice and Indian Electricity Rules. The Vendor shall provide necessary instruments, equipments and labour for conducting the above test and shall bear all expenses in connection with such tests. All tests shall be carried out in the presence of the client & TPI Agency and results shall be recorded in the prescribed forms.

3.2 Cable Marking Embossing On Outer Sheath

The outer sheath shall be legibly embossed with following legend:
ELECTRIC CABLE: 1100 V, SIZE: _____C x _____mm ².
Manufacturer's Name & year of manufacturing.
Property of AMC
Cable colour should be as per following :
10 sq mm x 4 core should be of Yellow color
16 Sq mm x 4 core should be Green Color

3.3 Sealing, Drumming & Packing

After tests at the manufacturer's works, both ends of the cable shall be sealed to prevent the ingress of moisture during transportation and storage.
Cable shall supply in length of 500 ± 10% meters on packed non-returnable drums of sufficiently sturdy construction.
Cables of length more than 250 meters shall also be supplied on non-returnable drums.
The spindle hole shall be 110 mm minimum diameter.
Each drum shall bear on the outside flange, legibly and indelibly in the English literature, a distinguishing number, the manufacturer's name and particulars of the cable i.e. voltage grade, length, conductor size, cable type, insulation type and gross weight shall also be clearly visible. The direction for rolling shall be indicated by an arrow. The drum flange shall also be marked with manufacturer's name and year of manufacturing etc.

4 LED LIGHT FIXTURE SPECIFICATION

The LED Street light system will have to meet the following Specifications :

4.1 Electrical Specifications :

- Parameter - Value
- Input Voltage - AC 120 to 260V (± 5%)
- Input Frequency - 50 Hz(± 3%)
- Power Factor - ≥ 0.95
- Usage hours - Dusk to dawn (12 hours)
- Distortion Current - <10%
- Voltage - <5%
- Working humidity - 10% to 90% RH

4.2 LED Luminaire Specification :

Life expectancy to the product at least 50,000 hrs maintaining lumen output at 70% or above compared with the luminaries initial output.

- Colour Temperature - 4000K (± 5%) / 5700 K(± 5%)
- Colour rendering index - >80%
- Lumen/ Watt (luminary) - Minimum 135 Lumens per watt (For Street Light Fixtures)
- Housing - High quality housing such as pressure die cast aluminum with Smooth finish powder coated for better environmental protection.
- Efficiency of Driver - >85%
- Junction temp - <75˚c
- Maintenance factor - 0.8
- Index of protection level - IP 66
- LED lens material - Poly Carbonate
- Protection - Over heat, overload, short circuit, HV surge up to 10 kv
- LED chip - Philips, Cree, OSRAM, Nichia, LG
- Driver current - ≤ 750mA
- LED Driver type - Constant current
- Beam Angle - 135˚ Horizontal / 80˚ Vertical
- Power protection - Electrical Disconnector (When the fitting opens power should be disconnected) in Street Light fitting
- Opening - Tool less opening in street Light fitting - Preferable
- Provision for NEMA Socket - Preferable

Note : Efficacy of the system should not allow below 135 lumens /watt (In Street Light Fixture) and wattage specified indicative maximum for the said lumens output, No negative tolerance allowed and no power loading shall be consider for this tender.

4.3 Particulars and Details to be submitted by the bidder in order to properly assess and due diligence submissions, the proponent should provide following information on the quality and photometric of proposed luminaries at the time of approval.

4.3.1 General description :

Following details of the proposed luminaire shall be submitted in Annexure – I

1. Luminaire manufacturer
2. Luminaire Model name
3. Wattage
4. Stated lumen output
5. IP rating
6. Lumen output (as per LM 79 report, mentioning current in MA)
7. Lumen deprecation (L70 mentioning Temperature in OC and current in mA)
8. Correlated color temperature (CCT)
9. Color rendering index (CRI)

4.3.2 Electrical Specifications :

Electrical ratings of the proposed luminaire for the following criteria shall be submitted in Annexure-II

1. Voltage range or rating on single Phase AC
2. Amperage range or rating
3. Frequency Range
4. Power Factor
5. Total harmonic distortion
6. Working humidity
7. Working temperature
8. ingress protection
9. Electrical connector
10. Ability to operate under the condition of unpredictable voltage variations. submit the information.

4.4 LED Chip and driver information: details to be filled up by bidder :

LED Chip and driver information of the proposed luminaire product for the following criteria in Annexure .III

1. Name of the LED Chip manufacturer
2. LED chip model name and number
3. LM 80 report from the LED chip manufacturer on the lumen depreciation characteristics of the specific LED Chip employed in the proposed luminaire product
4. Junction temperature (OC)
5. Information on drivers employed in the proposed luminaire
6. Name of the manufacturer
7. Model name and number.
8. Expected lifetime of the LED driver used in the proposed luminaire
9. Estimated cost of driver replacement by your company, including component and installation cost.
10. LED Driver should be BIS approved only, PF should be greater than 0.95, THD should be less than 10%

4.5 Bidder shall have to offer the following minimum warranty:

LED Chip and driver information of the proposed luminaire product for the following criteria in Annexure .III

(a) Bidder should ensure that OEM maintains 5% Extra (of the supplied nos. of fittings) ballast / driver & SPD in Ahmedabad. Proof of the same should be submitted.

(b) Provide a five year on-site replacement warranty covering warranty covering material fixture finish and workmanship, to include transportation, removal, and installation of new products.

(c) provide five year replacement warranty for defective or non -starting LED source assemblies and all drivers.

(d) Provide a five year warranty for luminaries exhibiting inadequate lumen maintenance at the end of the warranty period in compliance with the following table:

L 70 lifetime claim Min. Lumen maintenance @ 5Year.

(1) 30,000 Hours - 92.50%
(2) 50,000 Hours - 85.50%
(3) 1,00,000 Hours - 80.00%

(e) A luminaire dirt depreciation (LDD) factor may be included in the above calculation, such a value be determined by mutual agreement between AMC and the manufacturer, consistent with local ambient environmental conditions and practice.

(f) The bidder shall provide 10-year light fitting and it's all component availability from OEM to client and should be on OEM letter head with NSM sign and OEM Stamp. Also, the same should be given on Rs. 300 Stamp paper from OEM to Client and Company should give the letter for authorized signatory.

(g) Manufacturers should have to submit the required reports from NABL LAB UL / Intratech / ERDA for EMI-EMC test, Vibration compatibility test, Salinity spray test, IP/IK test, Powder coating Facility, In house casting plant, and driver manufacturing facility, SMT line in India. All luminaries should have a BIS certificate. Manufacturers should have certification pertaining to product design registration, CE certification, ROHS compliant and BIS certificate for drivers and luminaries respectively.

(h) The BIS of luminaire should carry own manufacturing facility of OEM. Dedicated vendor / sub-vendor facilities are not accepted. OEM should have own manufacturing facility for quoted LED fixtures in India which should be functional for last 10 years and should have dedicated official team for after sales and service support based out of Gujarat. Official undertaking with proof certifying OEM's lighting sales, design & service maintenance office presence in Gujarat (not less than 2 years) must be submitted

4.6 Photometric information:

The proponent needs to submit the following photometric

1. photometric modeling results, preferably within a LM79 report, from an independent accredited laboratory showing generic candlepower traces and iso foot-candle plots for the proposed luminaries product.
2. Photometric information, data and diagrams that model the luminance flux distribution of the proposed luminaire referencing the site characteristics given in section 4.5 above. The proponent should consider the following during the modeling exercise.
3. Such modeling should verify that the proponent's proposed luminaire will meet National Lighting Code, which specifies average luminance (Eavg), uniformity (Emin/Eavg) and Uniformity (Emin/Emax) for roads at the above sites. As specified in table 4.9
4. Use industry accepted, standardized software like Dialux for the above modeling while modeling, a maintenance factor of 0.8 should be used.

4.7 Lumen maintenance statement :

1. The proponent must submit a lumen maintenance statement that estimates how many operating hours can be expected from the proposed luminaire product until its light output declines to 70% of its initial output (L70) given the specific climactic character, including extremes of temperature and high humidity, associated with the local condition.
2. The lumen maintenance statement should also clearly explain that how or what method was used to determine the rated life time.
3. Describe in details the thermal management: how the physical and thermal design of the luminaire will prevent the LED chips from overheating on extremely hot days.

4.8 Luminaire Specifications - other:

The proponent shall provide information and certifications

1. Luminaries: General Requirements, Tests, and Certifications specified in IS 10322.
2. Electrical safety certifications such as ISI and CII.
3. Ingress protection certification IP 66.

4.9 Lighting Level Criteria :

Luminaries : Maintanance Factor : 0.8

Lux Levels, Unifromity should be achieved on the Road as under :

SR NO	PARAMETER	4 to 6M WIDTH	9 M WIDTH	12 M WIDTH	18 M WIDTH	18 M WIDTH	24 M WIDTH	30 M WIDTH	36 M WIDTH	45 M WIDTH
1	AVERAGE ILLUMINATION	4 LX	4 LX	8 LX	15 LX	15 LX	15 LX	30 LX	30 LX	30 LX
2	ARRANGEMENT	SIDE	SIDE	SIDE	SIDE	CENTRAL	CENTRAL	CENTRAL	CENTRAL	CENTRAL
3	TYPE OF LUMINAIRE	LED	LED	LED	LED	LED	LED	LED	LED	LED
4	RECOMMENDED CAPACITY OF LED LUMINAIRES (MAX.)	20 W	45 W	60 W	90 W	60 W	90 W	120 W	150 W	170 W
5	INITIAL LUMEN OUTPUT OF LED LUMINAIRES (MIN.)	2700 lm	6075 lm	8100 lm	12150 lm	8100 lm	12150 lm	16200 lm	20250 lm	22950 lm
6	BRACKET ARM LENGTH	1.0 m	1.0/1.5 m	1.0/1.5 m	1.5/2.0 m	1.5/2.0 m	1.5/2.0 m	1.5/2.0 m	1.5/2.0 m	1.5/2.0 m
7	POLE HEIGHT	4.5/5.5m	7.0 m	7.0 m	9.5/8.0 m	9.5/8.0 m	9.5/8.0 m	9.5/8.0 m	11.5/10.0 m	12.5/11.0 m
8	MOUNTING HEIGHT OF LUMINAIRE	4.0/5.0m	6.3 m	6.3 m	8.3 m	8.3 m	8.3 m	8.3 m	10.3 m	10.3 m
9	TILT ANGLE WRT ROAD SURFACE	15 deg	15 deg	15 deg	15 deg	15 deg	15 deg	15 deg	15 deg	15 deg
10	AVERAGE SPACING	25 m	25 m	25 m	25 m	25 m	25 m	25 m	25 M	25 M
11	CONNECTION/FP(PHASE)	3 phase	3 phase	3 phase	3 phase	3 phase	3 phase	3 phase	3 phase	3 phase
12	**Uniformity level**									
12.1	Min / Max	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
12.2	Min / Average	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

The computerized lighting design has to be practically proven for 'initial lighting levels' by installing at least six poles at a stretch on the actual project site before the award of the order, failing which the proposal should be rejected. To be done wattage wise, model wise and make wise.

(1) 36 MTR. & 45 MTR. WIDTH ROAD HAVING MAIN CARRIAGE WAY FROM THE EDGE OF CENTER VERGE TO Footpath / MUZ. AVERAGE ILLUMINATION LEVEL IN THIS AREA SHOULD BE 30 LUX (AVERAGE) RETAINING THE UNIFORMITY LEVEL.

(2) IF POLE HEIGHT IS REQUIRED TO BE INCREASED TO ACHIEVE MINIMUM UNIFORMITY RATIO OF 0.40, EXTRA PAYMENT FOR SUCH ADDITIONAL HEIGHT OF POLE WILL BE GIVENPROPORTIONATELY AS PER RATE ANALYSIS OF THAT PARTICULAR POLE.

Practical method for lighting measurement should be as per latest IS, IEC and NEC code and as per Consultant / Engineer in charge.

Power consumption calculation should be provided.

Note: All the documents, details and calculation provided for the luminaire should be duly signed and stamped by the OEM with authorized signatory letter from OEM as well as from bidder.

4.10 INSPECTION AND TESTING:

At all reasonable times during production and prior to transport of the Light Fixtures to site, the supplier / contractor shall arrange and provide all the facilities at their factory for inspection. The Vendor shall provide necessary instruments, equipment's and labour for conducting the test and shall bear all expenses in connection with such tests. All tests shall be carried out in the presence of the client & TPI

Agency and results shall be recorded in the prescribed forms.

If AMC desired, After receiving inspected lot(s) of LED Fittings at any of the site of AMC/AMC store, randomly one sample of each wattage capacity from any Lot will be selected and sent to NABL accredited lab ERDA for testing, once in entire contract period And If, its result(s) aren't found as per requirements, entire that particular lot will be rejected. Charges for such ERDA testing shall be borne by AMC. In case of any lot is rejected then ERDA testing charges for subsequent such lot would be recovered from the contractor's bill.

In case of rejection of tested sample by ERDA, the Contractor / Manufacturer can appeal/ request for re-testing and Dy. Municipal Commissioner (Light) will take decision for re-testing of sample accordingly.

For demonstration and testing of LED fittings on site by ERDA / TPI Agency as mentioned above, all contractors will have to arrange for lux level measurement on-site for each capacity (wattage) LED at site, in presence of AMC engineer. And report of the same has to be submitted to AMC Department. And if, it's result(s) aren't found as per requirements, entire that particular lot will be rejected. All charges for such on-site testing shall have to be borne by the contractor.

TESTING PARAMETERS AT ERDA.

(1) VISUAL
(2) DIMENSIONS
(3) FITMENT AND ASSEMBLY
(4) MEASUREMENT OF IR VALUE
(5) HV TEST (1.5 KV FOR 1 MINUTE)
(6) ELECTRICAL/FUNCTIONAL
(7) POWER FACTOR
(8) REVERSE POLARITY
(9) VOLTAGE OPERATION TEST 140-270 VOLT
(10) INGRESS PROTECTION IP 66
(11) HUMIDITY TEST
(12) THERMAL TEST
(13) PHOTOMETRY TEST (LPW, CCT & CRI)
(14) IMPACT RESISTANCE TEST

Note: AMC shall be free to conduct any of the above mentioned tests at ERDA.

5 LIGHT POLES

5.1 SCOPE:

The scope of this specification covers the manufacture, transport, installation, testing and commissioning of Poles, including the Civil Foundation Works with all items required for the safe and efficient operation and maintenance of the lighting system, whether explicitly stated in the following pages or not, shall be included by the Contractor.

5.2 LIGHTING POLES :

The street light poles shall be fabricated from heavy duty steel tubes / Steel Sheets conforming to IS:1239 and hot dip galvanized or painted as specified.

The street light pole shall be fabricated as per the details and dimensions shown in the drawing.

The street light poles shall have base plate, inbuilt Junction Box for street light and necessary fixture mounting bracket at top.

The Junction box shall provide easy access to a multiway connector and MCB, to be mounted inside the pole. The access shall be specially fabricated with adequate reinforcement and weather protection gasket to prevent ingress of moisture and vandal proofed.

Poles shall have large diameter entries for incoming and outgoing cables and two earth studs & Spiral earthing.

The poles fabricated shall conform to the drawings and where such drawing is not available, the contractor shall make such drawing and have it approved before fabricated.

The pole shall house a multi way type terminal block and MCB as shown on the drawings. Poles shall have concrete coping.

5.2.1 Octagonal Poles

Design

The Octagonal Poles shall be designed to withstand the maximum wind speed of 160 km / hr. The top loading i.e. the weight and the area of top luminaries are to be considered to calculate maximum deflection of the pole and the same shall meet the requirement of BS: 5649 Part VI 1982.

Pole Shaft

The pole shaft shall have **octagonal** cross section and shall be continuously tapered with **single longitudinal welding**. There shall not be any circumferential welding. The welding of pole shaft shall be done by Submerged Arc Welding (SAW) process.

All **octagonal** pole shafts shall be provided with the rigid flange plate of suitable thickness as mentioned in BOQ / Drawing with provision for fixing 4 foundation bolts. This base plate shall be fillet welded to the pole shaft at two locations i.e. from inside and outside. The welding shall be done as per qualified MMAW process.

Door opening

The octagonal Poles shall have door of minimum size of 250 mm X 65 mm at the elevation of 1000 mm from the Base plate. The door shall be vandal resistance and shall be dust proof to ensure safety of inside connections. The door shall be flush with the exterior surface and shall have suitable locking arrangement. There shall also be suitable arrangement for the purpose of earthing. Also, pole should have suitable separate Junction box for advertisement

The pole shall be adequately strengthened at the location of the door to compensate for the loss in section.

Material

Octagonal Poles : Confirming to ST 35 grade.

Base Plate : Fe 410 conforming to IS 226 / IS 2062

Foundation Bolts : 6.8 Gr. As per IS 1367

Coating : coating thickness 70 micron

All poles should be PU Painted and colour to be finalized by competent Authority of AMC.

Welding

The welding shall be carried out confirming to approved procedures duly qualified by third party inspection Agency / PMC. The welders shall also be qualified for welding the octagonal shafts.

Pole sections

The Octagonal Poles up to the length of 12 meters **shall be in single piece with single longitudinal welding joint**. There shall not be any circumferential weld joint. However, the pole with length of 12 meters and above shall be of 2 sections with telescopic fitment with minimum overlap of 1.5 times the diameter.

The manufacturing unit shall have In house pole testing facility for validation of structure design data, The pole testing facility shall be as per BSEN 40-2.1& 3

Galvanization

The poles shall be hot dip galvanized as per BSEN ISO 1461 standards with average coating thickness of 70 micron. The galvanizing shall be done in single dipping.

Fixing Type

The Octagonal Poles shall be bolted on a pre-cast foundation with a set of four foundation bolts for greater rigidity.

Top Mountings

The galvanized double / single arm shall be supplied along with the Octagonal Poles for installation of the luminaries.

5.3 INSPECTION AND TESTING :

At all reasonable times during production and prior to transport of the material to site, the supplier / contractor shall arrange and provide all the facilities at their factory for inspection. The Vendor shall provide necessary instruments, equipment's and labour for conducting the test and shall bear all expenses in connection with such tests. All tests shall be carried out in the presence of the client & TPI Agency and results shall be recorded in the prescribed forms.

6 EARTHING

6.1 EARTHING

The system shall be TNS with four wire supply system (R,Y,B,N and 2 Nos. E) brought from the main L T Panel. All the non-current carrying metal parts of electrical installation and all metal conduits trunking, cable sheaths, switchgear, distribution panels, light fittings and all other parts made of metal shall be bonded together and connected by means of specified earthing conductors to an efficient earthing system. All metal work such as pipelines, ducts, cable trays, staircase railing etc. shall be bonded to earth.

All earthing shall be in conformity with IS:3043 1987, and the basic system of earthing shall be TNS.

6.2 EARTHING CONDUCTORS

Earthing conductors shall be of copper / GI as mentioned in schedule of quantities and shall be protected against mechanical injury and corrosion.

6.3 SIZING OF EARTHING CONDUCTORS

The cross sectional area of earthing conductor shall not be smaller than half of the largest current carrying conductor subject to an upper limit of 80 Sq.mm. If the area of the largest current carrying conductor or bus bar exceeds 160 sq.mm then two or more earthing conductors shall be used in parallel, to provide at least half the cross sectional area of the current carrying conductor or bus bars. All fixtures, outlet boxes, junction boxes and power circuits upto 15 amps shall be earthed with PVC insulated copper wire.

All 3 phase switches and distribution panels upto 60 amps rating shall be earthed with 2 Nos. distinct and independent 4 mm dia copper/ GI wires. All 3 phase switches and distribution panels upto 100 amps rating shall be earthed with 2 Nos. distinct and independent 6 mm dia copper / GI wires. All switches, bus bar, ducts and distribution panels of rating 200 amps and above shall be earthed with minimum of 2 nos separate and independent 25 mm x 3 mm copper / GI tape.

6.4 **CONNECTION OF EARTHING CONDUCTORS**

Main earthing conductors shall be taken from the earth connections at the main L T panel to an earth electrode with which the connection is to be made. All joints in tapes shall be with four rivets and shall be brazed in case of copper and by welding bolting in case of GI, wires shall be connected with crimping lugs, all bolts shall have spring washers. Sub- mains earthing conductors shall run from the main distribution panel to the sub distribution panel. Final distribution panel earthing conductors shall run from sub-distribution panel.

Circuit earthing conductor shall run from the exposed metal of equipment and shall be connected to any point on the main earthing conductor, or its distribution panel. Metal conduits, cable sheathing and armouring shall be earthed at the ends adjacent to distribution panel at which they originate, or otherwise at the commencement of the run by an earthing conductor in effective electrical contact with cable sheathing. Where equipment is connected by flexible cord, all exposed metal parts of the equipment shall be earthed by means of an earthing conductor enclosed with the current carrying conductors within the flexible cord. Switches, accessories, lighting fitting etc. which are rigidly secured in effective electrical contact with a run of metallic conduit shall not be considered as a part of the earthing conductor for earthing purposes, even though the run of metallic conduit is earthed.

The plate/pipe electrode, as far as practicable, shall be buried below permanent moisture level but in no case not less than 2.5 M below finished ground level.

The plate/pipe electrode shall be kept clear of the building foundation and in no case, it shall be nearer by less than 2 M from outer face of the respective building wall / column.

The plate electrode shall be installed vertically and shall be surrounded with 150 mm. thick layers of Charcoal dust and Salt mixture.

19 mm. dia. G.I. pipe for watering, shall run from top edge of the plate / pipe electrode to the mid level of block masonry chamber.

Top of the pipe shall be provided with G.I. funnel and screen for watering the earth / ground through the pipe.

The funnel with screen over the G.I. pipe for watering to the earth shall be housed in a block masonry chamber as shown in the drawing.

The masonry chamber shall be provided with a Cast Iron hinged cover resting over the Cast Iron frame which shall be embedded in the block masonry.

Construction of the earthing station shall in general be as shown in the drawing and shall conform to the requirement on earth electrodes mentioned in the latest edition of Indian Standard IS: 3043, Code of Practice for Earthing Installation.

The earth conductors (Strips / Wires copper / Hot dip G.I.) inside the building shall properly be clamped / supported on the wall with Galvanised Iron clamps and Mild Steel Zinc Passivated screws / bolts. The

conductors outside the building shall be laid atleast 600 mm. below the finished ground level.

The earth conductors shall either terminate on earthing socket provided on the equipment or shall be fastened to the foundation bolt and / or on frames of the equipment. The earthing connection to equipment body shall be done after removing paint and other oily substances from the body and then properly be finished.

Over lapping of earth conductors during straight through in joints, where required, shall be of minimum 75mm. long.

The earth conductors shall be in one length between the earthing grid and the equipment to be earthed.

EARTH LEADS AND CONNECTIONS :

Earth lead shall be bare copper or Galvanised steel as specified with sizes shown on drawings. Copper lead shall have a phosphor content of not over 0.15 %. G.I strips buried in the ground shall be protected with bitumen and hessian wrap or polythene faced hessian and bitumen coating. At road crossing necessary Hume pipes shall be laid. Earth lead run on surface of wall or ceiling shall be fixed on saddles so that strip is at least 8 mm away from the wall surface.

The complete earthing system shall be mechanically and electrically bonded to provide an independent return path to the earth source.

6.5 **PROHIBITED CONNECTIONS**

Neutral conductor, sprinkler pipes, or pipes conveying gas, water or inflammable liquid, structural steel work, metallic enclosures, metallic conduits and lightning protection system conductors shall not be used as a means of earthing an installation or even as a link in an earthing system. The electrical resistance measured between earth connection at the main L T panel and any other point on the completed installation shall be low enough to permit the passage of current necessary to operate or circuit breakers, and shall not exceed 1 ohm. All switches carrying medium voltage shall be connected with earth by two separate and distinct connections. The earthing conductors inside the building wherever exposed shall be properly protected from mechanical injury by running the same in G I pipe of adequate size. The overlapping in strips at joints where required shall be minimum 75 mm. The joints shall be riveted and brazed in case of copper and by welding / bolting in case of GI in an approved manner. Sweated lugs of adequate capacity and size shall be used for termination of all conductor wires above 6 sq.mm size. Lugs shall be bolted to the equipment body to be earthed after the metal body is cleaned of paint and other oily substances and properly tinned. Equipotential bonding of all metallic structures shall be done.

6.6. **EARTHING**

The following must always be ensured in earthing system.

- All earths must be interconnected at the earth pits. This includes generator neutrals, transformer neutrals, transformer body, lightning protection system earths, UPS earths etc.

- Extraneous conductive parts such as gas pipes, other service pipes and ducting risers and pipes of fire protection equipment and exposed metalic parts of the building structure.

6.7 **RESISTANCE TO EARTH**

The resistance of earthing system shall not exceed 1 ohm.

6.9 **SPECIFICATION FOR HOT DIP GALVANIZING PROCESS FOR MILD STEEL USED FOR EARTHING FOR ELECTRICAL INSTALLATION**

GENERAL REQUIREMENTS

I. Quality of Zinc

Zinc to be used shall conform to minimum Zn 98 grade as per requirement of IS:209-1992.

II. Coating Requirement

Minimum weight of zinc coating for mild steel flats with thickness upto 6 mm in accordance with IS:6745-1972 shall be 400 g/sqm.

The weight of coating expressed in grams per square metre shall be calculated by dividing the total weight of Zinc by total area (both sides) of the coated surface.

The Zinc coating shall be uniform, smooth and free from imperfections as flux, ash and dross inclusions, bare patches black spots, pimples, lumpiness, runs, rust stains bulky white deposits, blisters.

Mild steel flats / wires shall undergo a process of degreasing pickling in acid, cold rinsing and then galvanizing. Jointing of earthing tape shall be by welding. All joints and cut ends shall be properly painted with aluminium paint.

6.10 Chemical Earthing System – specification

Earthing system should offer a resistance of less than 2 ohms throughout the year. In places where Soil resistivity is more, total length of the earthing rod has to be increased by adding 1m length rods (one over the other) to achieve low and stable resistance value. In rocky places ,multiple earth rods have to be installed and inter-connected to get the required value.

Solid Copper coated rods are recommended as earth electrode than a pipe due to the fact that solid rods have much longer life and can be easily driven by electric/hydraulic hammers. Copper has much longer life than all other materials as explained in IS 3043. Deep driven rods provide more stable and less Earth Resistance. Doubling the length of the rod will reduce earth resistance up to 40 %, whereas doubling the diameter will reduce the resistance by only 10 %, but may increase the cost by 4 times.Lower earth resistance can also be achieved by increasing the number of earth rods. E.g. 40 % reduction in earth resistance is possible if the rods are increased from 1 to 2. The minimum spacing between earth pits should be equal to TWICE the length of the rod. Increasing the spacing between earth pits also reduces the earth resistance significantly.

Need and importance of Earthing:

- Human and Personnel safety.
- Equipment protection.
- Provides low impedance path for fault currents.
- To ensure good quality power.
- Protection against lightning and transient currents, noise reductions, Limitation of EMI.

References:

IEC 60364: Low Voltage Electrical Installations-Part 5-54: Selection & Erection of Electrical equipment- Earthing arrangement & protective conductors.
IEC 62561: Lightning Protection system Components. Part 1 to 7.
IEC 62305: Protection Against Lightning –Part 3: Protection of structures & life Hazards
IS 2309: Code of practice for protection of buildings & allied structures from lightning
IS 3043: Code of practice for earthing.

Components of earthing system:

- Earth electrode
- Connectors and fasteners
- Inspection Chamber (Earth Pit)

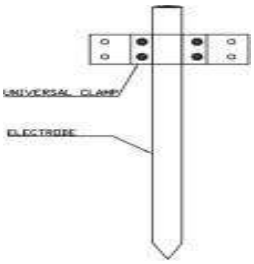
- Earth enhancement material
- Connecting cable/tape/strip with accessories.

Earth Electrode:

Copper coated Solid steel Rods shall be made of high tensile low carbon steel rod, molecularly bonded with 99.9% electrolytic copper with minimum coating thickness of 250 microns as per IEC 62561 part -2: Requirement for Conductor & Earth Electrodes. The length of the earth rod shall be 3 meter so that driving into the ground is easier (scaffolding is not necessary). For dry areas, length of the rods can go up to several meters by driving the rods one over the other. Earth rods should be of diameter 20 mm. These rods should have facility to couple with hammer inserts so that they could be driven easily with an electric/hydraulic hammer. Additional rods should be added without external couplers. The earth rods should have peg & bore arrangement so that additional rods are added without external couplers.
Interconnecting Strips / Earthing Conductor: Copper coated steel strips / tapes should be used to interconnect different earthing rods as well as horizontal earthing (Ring earthing). These strips should have a coating thickness of minimum 70 microns.

Couplers / Connecting clamps:

Connectors/fasteners for connecting Electrode with Earthing conductor/strip should be of Stainless Steel as it is compatible with all other materials viz Copper, GI etc. Fasteners should be made of Stainless steel



Inspection Chamber :

Should have an inner dimension of 250 mmX 250 mm X 250 mm made of FRP material. Flush Mounted, removable cover of the earth pit should be able to withstand moderate loads. The area inside the inspection chamber should be such that, the UNIVERSAL CLAMP/EBB/Bus bars not too deep inside the inspection chamber or projecting out of inspection chamber. The chamber should have facility for marking earth resistance and latest testing date by paint at the cover and previous recorded values inside the cover.

Earth Enhancement material:

This is a conductive mineral compound to provide low resistance to the earth termination system. Earth enhancing compound should contain minerals which in normal use is reliable and without creating any hazards to persons and the surroundings. The material shall be chemically inert to sub soil and shall not pollute the environment. It shall provide a stable environment in terms of physical and chemical properties and exhibit low resistivity. It shall not be corrosive to the earth electrode itself. The material should have a resistivity less than 50 Ohm meter

Installation:
Dig a pit of Suitable Size as per the GFC drawings..
At the center of the pit, Earth rod of 3 m has to be hammered electrically or hydraulically.
The number of Earth rods can be added one over the other to get the required length.
Fill the dug up area with Earth enhancing compound mixed with water & soil to get slurry form in such a way that

the earth inspection pit is in flush with the earth surface.
Connect the connectors with fasteners & connect the down conductors.
Close the lid of earth inspection pit.

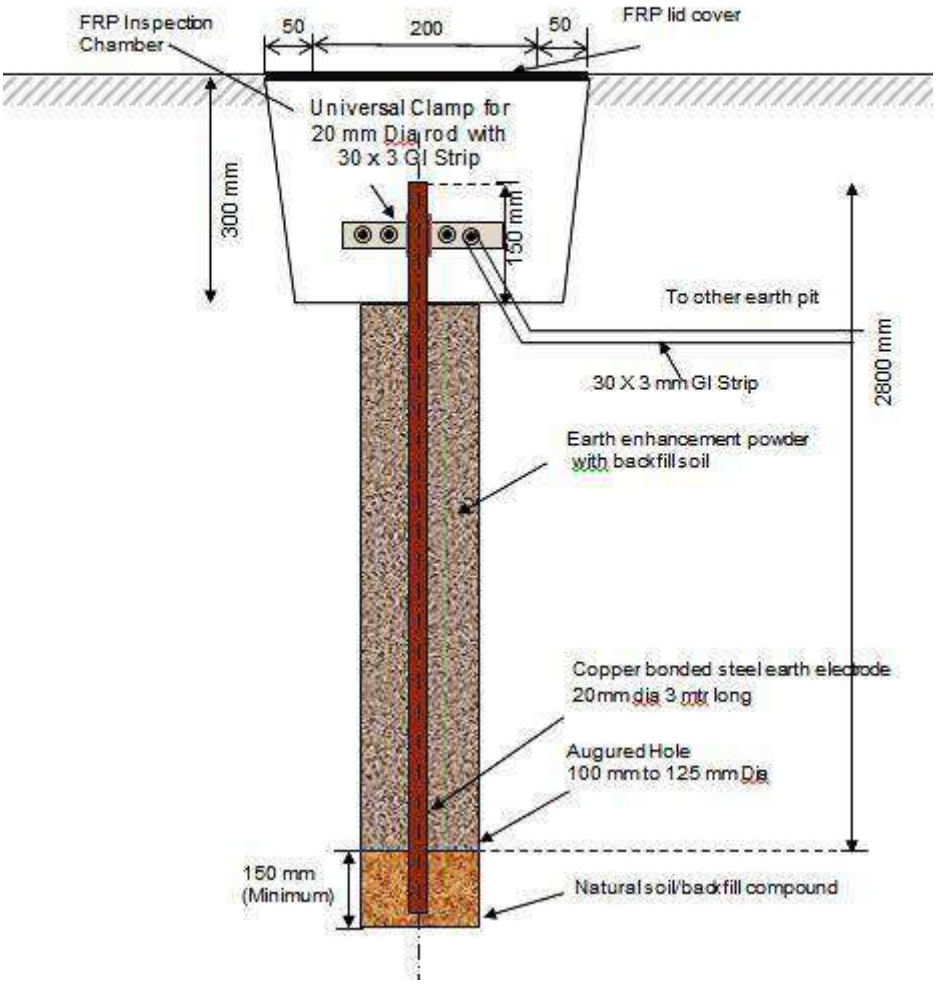
22.11 Test

The entire earthing installation shall be tested as per requirements of Indian Standard Specification IS: 3043.
The following earth resistance values shall be measured with an approved earth megger and recorded.

1) Each earthing station
2) earthing system as a whole
3) Earth continuity conductors
4) Earth conductor resistance for each earthed equipment shall be measured which shall not exceed 5 ohm in each case.

Measurements of earth resistance shall be carried out before earth connections are made between the earth and the object to be earthed.
All tests shall be carried out in presence of the client's representative/ PMC / Consultant.

Earthing Auguring Method



Centralized Smart City Management System (CMS)

The Municipality envisions a modern, integrated City Management System (CMS) that serves as the digital backbone of a smart, sustainable, and citizen-centric urban ecosystem. This CMS will act as a unified control and monitoring interface for all critical municipal infrastructure, enabling real-time insights, centralized decision-making, and proactive management across departments.

For the CMS project, an initial selection of 25 to 50 section feeder pillars will be made for the pilot phase. The results of this pilot will be analyzed by the Consultant and the Competent Authority of the AMC. Based on the analysis, further work will then be planned and executed.

The CMS will:

- Aggregate data from diverse systems including lighting, traffic, environment, energy, safety, and utilities
- Allow multi-stakeholder access with role-based dashboards and operational hierarchies
- Enable geo-tagged visualization of assets, alerts, and events on a live city map
- Offer real-time analytics to assist in urban planning, resource optimization, and emergency response
- Integrate with legacy systems and third-party platforms through secure APIs and standard protocols
- Provide citizen-facing interfaces (mobile/web) for complaints, suggestions, and service tracking
- Ensure high availability, cybersecurity compliance, and scalability as the city's needs evolve
- The offered streetlight control system must utilize a communication architecture where individual streetlight controllers transmit data to the feeder panel using license-free 2.4 GHz RF Mesh networking technology.
- The solution must be designed to minimize dependence on cellular networks, allowing only a single/dual SIM-based connectivity module at the feeder panel level for upstream communication with the central monitoring system.
- The system shall support local data buffering and uplink retry logic at the feeder panel, ensuring communication continuity and data integrity during partial or temporary network outages.
- The bidder must be capable of retrofit the proposed solution with existing feeder panels, enabling RF Mesh-based integration with individual streetlights without requiring panel replacement.
- Additionally, the bidder must provide a detailed 5-year Total Operational Expenditure (OPEX) analysis, clearly indicating all recurring communication costs.

The Municipality's long-term objective is to transition from fragmented infrastructure oversight to data-driven governance, improving efficiency, transparency, and responsiveness.

Lighting Management System (LMS)

As an initial milestone in the CMS roadmap, the Municipality seeks to deploy an advanced Lighting Management System (LMS) that will serve dual roles:

1. As a stand-alone Smart Street Lighting solution
2. As a CMS-compatible module that will integrate natively into the future Smart City infrastructure

Scope of LMS Implementation

The LMS shall cover the following key operational areas:

Domain	Capabilities Required
Remote Operations	Centralized ON/OFF control of individual street lights and feeders
	Scheduling of operation by time, astronomical clock, or local ambient light
	Dimming functionality (manual, scheduled, or sensor-driven) to save energy and cut energy costs
Fault Monitoring	Real-time fault detection (lamp failure, cable faults, feeder tripping, controller malfunction) to improve maintenance efficiency
	Predictive alerts based on abnormal power signatures or failure patterns
Energy Monitoring	Per-light and per-feeder energy consumption tracking
	Power quality metrics (voltage/current fluctuations, harmonics)
Asset Visibility	GIS-based asset mapping and real-time status display
	Lifecycle tracking (installation date, maintenance logs, expected replacement)
Maintenance Optimization	Scheduled maintenance notifications and work order generation
	Predictive maintenance based on usage hours and fault trends

LMS Objectives and Expected Outcomes

The proposed LMS is expected to deliver measurable operational, environmental, and financial benefits:

Objective	Expected Outcome
Energy Efficiency	Reduce street lighting energy use by 30–40% through dimming, smart scheduling, and remote control
CO_2 Reduction	Direct reduction in carbon emissions aligned with national energy conservation goals
Public Safety	Enhanced lighting in sensitive areas, dynamically adjusted based on time of day, weather, or public events
Operational Savings	Reduced manpower deployment through automation, faster fault resolution
Improved Asset Life	Data-driven preventive maintenance to reduce premature failures and extend asset lifespan
Data Transparency	Reports, analytics, and dashboards for municipal leadership, auditors, and citizens (if enabled)

Technical Specification for Lighting Management System Component Wise:

1. Section Feeder Panel Controller

The Section Feeder Panel Controller – hereafter referred to as the Cabinet Controller – shall be a single integrated product for smart lighting group control and power-distribution management inside the street lighting feeder cabinets. The equipment shall deliver secure, real-time monitoring, remote diagnostics and firmware updates, and fine-grained control of both lighting circuits and ancillary loads, thereby driving measurable energy savings, reducing maintenance visits, lowering light pollution, and supporting the municipality's Smart City roadmap.

Bidder shall meet, in full, the technical and functional requirements set-out in the table below. Any variance, limitation, or omission must be stated explicitly in a separate deviation column; silent, ambiguous, or misleading responses will be grounds for disqualification and/or contractual penalties.

Integrated product	The Cabinet Controller shall integrate in a single DIN-rail housing: (a.) Wide-range 85–305 V AC mains input (no external PSU permitted); (b.) Dual-core MCU with vector-SIMD (AI) acceleration and ≥16 MB flash / 8 MB PSRAM; (c.) At least ≥ 4 independent, bi-stable latching relays (≥ 5 A @ 230 VAC each) for feeder switching; (d.) On-board RS-485 / Modbus interface; (e.) Sensor I/O (≥ 2 digital inputs, configurable); (f.) Integrated RF Mesh Gateway capable of managing up to 200 OLC streetlights individually (through 2.4 GHz wireless network); (g.) Sim/ esim connectivity through LTE Cat-1 with mandatory GSM fallback, and 10/100 Mb Ethernet; optional secondary sim/esim; (h.) Bluetooth 5 for local mobile-app based setup and commissioning.
Input Voltage	(a.) 100 - 240 VAC (nominal), 85 - 305 VAC (extended), 50/60Hz; Direct AC input is mandatory without need for a separate AC/ DC converter to prevent fire hazard; (b.) Under- and over-voltage protection with cut-off <170V and >270V (to be connected separately on the input line); (c.) Power consumption <5W typical; (d.) at least 6kV surge protection; (e.) Class II; Galvanic isolation for electrical safety.
Operating Conditions	-40º C to +85º C operating temperature, < 95% Rh non-condensing

Electrical Specification

Housing	(a.) IP20 or higher ingress protection rating; (b.) Fire resistant (UL94-V0) housing; (c.) DIN Rail 35mm compliant product mounting; (d.) Unique identifiable QR code on the product for traceability.
Back-up battery	Interface to connect to an external back-up battery module to circumvent temporary local power failure scenario;
LMS Server Communication	The Controller must provide the following server communications options: (a.) Sim/ esim connectivity: LTE CAT 1 (4G). Must have mandatory GSM/ GPRS fallback for remote locations; (b.) Provision for secondary sim/ esim (optional); (c.) Ethernet (10/100 Mbps).
Geo-location	The Controller must have in-built GNSS module (GPS) for local geo-tagging, accurate astro-clock as well as prevention of theft.
Network Connection Security	Communication between Cloud server and Controller -- for both sim-based and ethernet-based connectivity -- must be secured with at least: (a.) Certificate-based secure WebSocket (with SSL) and private VPN connection, supported by OAuth 2.0 access control
Local data processing	Dual-core micro-controller with built-in artificial intelligence (AI) accelerator, with at least 16 MB flash and 8 MB PSRAM, for anomaly detection / predictive maintenance.
Inputs	The Controller must provide for: (a.) 2 digital inputs (b.) with ability to configure the input(s), for example, for connecting a light sensor (photocell), door switch, etc, thereby enabling the Controller to switch relay output(s) based on the sensor's status.
Inputs (optional)	Optional selectable provision: (c.) 2 additional digital inputs; (d.) 1 analog input (4-20mA); (e.) 1 analog input (0-10V);

Electrical Specification

Serial Interface	The Controller must include an RS485 interface for connecting to a Modbus-compliant local 3-phase smart energy meter/ panel meter, enabling real-time monitoring of power consumption.
Manual reset	The Controller must have a reset button for manual switching. Last relay state shall persist via latching mechanism.
Relay Output	(a.) At least 4 (four) latching relay outputs for switching at least 4 contactors independently that control specific groups of streetlights (circuits) or other electrical loads individually; (b.) Shall be latching type relay. Traditional NO/ NC type relay are not acceptable to prevent blackouts; (c.) At least 5A (230V AC) capacity per relay -- sized for single-phase branch circuits or contactor coils.
Additional Outputs (optional)	Optional output: (d.) A 24V DC Auxiliary output, to power third-party electrical devices or sensors. (e.) A configurable 24V DC Output, for example, to connect an external siren or emergency light that is triggered by an unauthorized door opening.
Voltage input (optional)	Optional input for: (a) Individually measuring the voltage of all three phases at the cabinet power inlet; (b) Setting custom thresholds for under-voltage and over-voltage on each phase; (c) Triggering an alarm notification if any of the thresholds are exceeded.
Current input measurement (optional)	Optional inputs for : (a) 4× Current Transformer (CT) inputs for monitoring the cabinet's inlet conductors, including detection of earth leakage - either via a single CT coil covering all conductors together or four individual CT coil measuring each conductor separately;

Current output measurement (optional)	Optional input for: (b) 18× CT inputs for measuring the individual current draw of up to 18 separate electrical outgoing circuits on the feeder pillar / control cabinet's output side.
USB Interface	The Controller must include a USB port that enables: (a) On-site firmware updates in case the Controller is offline; (b) Extraction of stored data in case of momentarily lost or unavailable network connectivity.
Time Management	The Controller must have dedicated in-built real-time clock (RTC) module for accurate time keeping. This is to accommodate any interim network-loss, and in turn, provide input data for astronomical clock calculation for accurate
DALI interface (optional)	Optional DALI interface capable of individually controlling at least 48 DALI drivers (streetlights/ decorative lights), with native support for the following DALI standards: (a) DALI Part 207 – Device Type 6 (LED driver) (b) DALI Part 208 – Device Type 7 (Relay control) (c) DALI Part 209 – Device Type 8 (Color control: Tc and RGBWAF)
Gateway (co-ordinator) functionality	The Controller must include built-in Gateway coordinator to support individual control of at least 200 streetlights (OLCs) based on 2.4 GHz wireless RF Mesh network. Such functionality should be activated at no cost to municipality when asked for.
RF Mesh LAN Network Security	Controller must provide the following security standards regarding wireless communication between the Cabinet Controller and RF Mesh Outdoor Lighting Controllers (OLC): (a.) Multilayered with AES 128 encryption. IEEE 802.15.4 standard. (b.) Secured, authorised pairing between OLC's and Controller.

Over-the-air update (OTA)	Over-the-air (OTA) update of the firmware (Cabinet Controller software) is crucial for security reasons. Safe, secure and scalable OTA is also mandatory for bug fixes and new feature updates provided by the OEM: (a.) It must be possible to update the following inside the Cabinet Controller as well as the connected RF OLCs: 1.) Application Software, 2.) Security patches, 3.) Product firmware, and 4.) Modem firmware; (b.) It must be possible to OTA update the software/ firmware remotely, without local site support in the field; (c.) It must be feasible to OTA update multiple Controllers simultaneously.
Remote Monitoring	(a.) It is mandatory to remotely monitor, manage, control and configure the group Controller as well as connected RF Mesh OLC's (connected via wireless network) through central LMS; (b.) Integration to Asset Management Systems and SCADA (Supervisory Control and Data Acquisition) platforms must be possible through open APIs.
Compliance	The Controller must be certified for at least the following standards issued by an independent authorized certification body, namely TUV, SGS, UL or equivalent. OEM must provide copies of the certificates as well as detailed test reports issued by the certification agency. Self-certification or self-testing are not accepted considering the project needs. (a.) EN 60950-1:2005 + A1:2009 + A2:2013; (b.) EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011; (c.) EN IEC 62368-1:2020 + A11:2020 These standards ensure electrical safety of the Cabinet Controller in outdoor environments, protecting public infrastructure from fire or electric hazards, enhancing citizen safety, and enhancing citizen trust in smart infrastructure. Radio module must be certified for at least the following standards by an authorized certification entity: (a.) EN301908-1; (b.) EN301908-13; (c.) EN303413; (d.) EN301511; (e.) Radio safety certificate (CE RED). Detailed test reports to be submitted.
Mobile Application	Bluetooth based mobile application for local setup and configuration of Cabinet Controller

Standard warranty	Cabinet Controller must carry at least 5 years hardware warranty
Documents for submittal	OEM Supplier must provide at least the following documents: (a.) Detailed technical datasheet, (b.) Product certification and detailed test reports (provided by independent certification body)

2. **External Enclosure for Panel-Level Upgradation and Allied Accessories Installation**

The modular external combinable enclosure system for housing and upgrading panel-level accessories in the Smart Streetlight Control System. The enclosure shall be suitable for outdoor / harsh environments with complete insulation, high durability, and compliance to international protection and safety standards.

Technical & Functional Inclusions:

- Modular, insulation-enclosed, total insulated combinable enclosure system
- Designed for assembly of Power Switchgear and Control gear Assembly (PSC) up to 630 A
- Conforms to IEC 61439 Part 2 and Part 1, para 10.2.4
- Protection Class: IP 65, Class II (total insulation)
- Material: High-grade PC (Polycarbonate), self-extinguishing and flame retardant
- UV-resistant, weatherproof, and suitable for long-term outdoor use
- Glow Wire Test compliant as per IEC 60695-2-11
- Silicone- and halogen-free for safe, toxic-free operation
- High chemical resistance – resistant to acids, alkalis, petrol, and mineral oil
- Provision for DIN rail mounting, cable entries, lockable door, ventilation (if required), and earthing as per standard
- Suitable for installation of relays, controllers, fuses, meters, terminals, and other allied accessories

Inclusions:

- Includes complete mounting hardware, gland plates, internal mounting structures, and sealing components
- Field-ready installation with commissioning support
- Fully certified and compatible with streetlight panel augmentation needs

3. Multi-Function Energy Meter

The multifunction energy meters with compatible CTs and necessary allied accessories for feeder and individual load monitoring. The meter must support real-time measurement of voltage, current, power factor, frequency, active/reactive/apparent power, and energy consumption parameters. It shall have Modbus RS485 communication for integration with the central management system. CTs must be accuracy class 1 or better, appropriately rated, and calibrated. The solution must include wiring, terminal connectors, DIN rail mounting arrangement, and proper labelling.

Inclusions:

- Multi-Function Meter with display

- CTs (Accuracy Class 1 or better)
- RS485 Modbus communication support
- Wiring, mounting, and accessories included
- Data integration with LMS platform

4. Panel-mounted, multi-circuit energy monitoring system

The panel-mounted, multi-circuit energy monitoring system for monitoring 6, 9, 12, or 18 or as per site requirements outgoing circuits within feeder panels or distribution boards. The system must enable real-time measurement and reporting of power, energy, and circuit-level load status to enable efficient energy management, fault detection, and operational optimization.

Technical & Functional Inclusions:

- Panel/DIN rail mountable multi-circuit energy meter
- Configurations supported: Monitoring of 6, 9, 12, or 18 branch circuits or as per site requirements
- Electrical parameters measured: Voltage, Current (per branch), Frequency, Power Factor, Active, Reactive, Apparent Power, Energy Consumption (kWh) per branch circuit
- Built-in RS-485 (Modbus RTU) communication for integration with LMS/EMS/SCADA/BMS or any third party system
- Real-time alerts for over/under current or abnormal usage
- Factory-calibrated CTs (Class 1 accuracy or better), plug-in type preferred
- Designed for branch circuit monitoring in lighting panels, UPS, HVAC, and critical loads
- Certification including IEC 61010-1, IEC 61326, Factory Calibration Certificate for each unit, traceable to national/international standards, OEM Self-declaration shall not be accepted without supporting third-party certification reports
- Including all CTs, connectors, terminal blocks, mounting kits, and wiring accessories
- Fully labelled with cable tags, panel-side documentation, and QR code traceability (if supported)
- Installation and testing at site with integration into existing system
- Support for API data access or compatible LMS plug-in for centralized dashboards
- Training and commissioning assistance must be included
- All necessary documentation, manuals, wiring diagrams, and certificates to be submitted at handover
-

5. Feeder Panel Accessories including Contactor / Relay / MCB Controller / Manual Switch

The modular contactor or relay-based switching devices, or MCB-integrated controller units for remote operation of streetlight circuits. The system must support on/off control commands from the central LMS and include manual override provision. The device shall be suitable for DIN rail mounting, rated for required load capacity, and include necessary protection features. Communication and control integration with feeder-level or individual-level controllers must be ensured.

Inclusions:

- Contactor or relay suitable for streetlight load switching
- MCB integrated controller (if used)
- Manual switch to bypass Cabinet Controller when needed
- Surge protector (against lighting) for Cabinet Controller

- DIN rail mounting arrangement
- Wiring, control terminals, and allied accessories
- Compatible with LMS for remote operation and fault alerts

6. **Enterprise-Grade Server with Disaster Recovery (as per MeitY Guidelines)**

To provide a secure, scalable, and high-performance data processing and hosting server infrastructure along with a compliant Disaster Recovery (DR) system, designed to ensure business continuity and data security for mission-critical e-Governance or Smart City operations.

Compliance Requirements:

The offered solution shall be:

- Compliant with MeitY Guidelines for Government Cloud (GI Cloud / MeghRaj)
- Compliant with National e-Governance Standards for Security (NeGSS)
- Aligned with ISO/IEC 27001, ISO/IEC 22301, and CERT-In advisories
- Supporting Data Residency within India
- DR site to be located in India (mandatory)

The proposed server shall act as the centralized computing and control unit within the City Central Command Centre for Smart Infrastructure Operations. It shall enable local hosting, processing, control, and secure communication of the Street Light Management System (SLMS) and other integrated smart city services.

General Requirements :

- The server must be an enterprise-grade, industrial-class rack-mounted system.
- It shall support high-availability, 24x7 operations with redundancy and scalability.
- The server shall be pre-configured with a secured Linux (Ubuntu LTS) operating system and capable of hosting containerized and web-based streetlight management applications.
- It must support secure communication protocols including HTTPS, MQTT over TLS, and SSH.

Hardware Configuration	
Component	**Minimum Requirement**
Form Factor	2U/4U Industrial Rack-Mountable Server
Processor	Dual Intel Xeon Silver/Gold or AMD EPYC (minimum 16 cores total)
RAM	Minimum 64 GB ECC DDR4 RAM, expandable to 512 GB
Storage	Minimum 10 TB SSD configured in RAID 5 or RAID 10 with Hardware RAID Controller
Power Supply	Dual Redundant Hot-Swappable PSUs (Platinum Rated)
Cooling	High-efficiency cooling with redundant industrial-grade fans and temperature monitoring
Expansion Slots	Minimum 4 × PCIe 4.0/5.0 for GPU, I/O, and future upgrades
Operating Temperature	0°C to 50°C
Humidity Tolerance	10%–90% RH, non-condensing
Networking and Communication	
LAN Ports	Minimum 4 × 1 Gbps RJ45 ports + 2 × 10 Gbps SFP+ ports
Managed Ethernet Switch	16-Port Industrial Layer 2/3 Switch with VLAN, STP, SNMP

	support
Firewall Appliance	Integrated Hardware Firewall with:• Stateful Inspection• VPN Support• Intrusion Detection• NAT/Web Filtering
Wireless Backup	Built-in 4G/5G LTE Failover Support with Dual SIM slots
Supported Protocols	HTTPS (Port 443), MQTT over TLS (Port 8883), SSH (Port 22), SNMP
Remote Management	IPMI 2.0 / Web-based Out-of-Band Management
Software and Security	
Operating System	Pre-installed Ubuntu Server LTS (latest stable Long-Term Support version)
Application Support	Capable of hosting City and Street Light Management Software with Web UI and API integration
Database Support	PostgreSQL / MySQL / SQLite (as required)
Cybersecurity	Secure Boot, BIOS Lock, UFW/Iptables Firewall, SSH Key-based Access, 2FA Capability
Logging & Monitoring	Support for centralized logging, SNMP-based monitoring, and Prometheus/Grafana setup
Power & Protection	
Input Voltage	100–240V AC, 50–60 Hz
UPS	Online UPS 2 kVA with 60 minutes backup, software integration for auto-shutdown
Surge Protection	Inbuilt Surge Protection Device (SPD) and EMI filter
Peripherals and I/O	
USB Ports	Minimum 8 × USB 3.1/3.2
Video Output	HDMI and VGA
Serial Communication	2 × RS232/RS485 Ports
Keyboard/Mouse	Industrial-grade combo included
Chassis Security	Lockable front panel with tamper detection

Inclusions & Deliverables

- 1 × Rack-mounted industrial server as per above specifications
- 1 × Managed 16-Port Industrial Switch
- 1 × Hardware Firewall Appliance
- 1 × Online UPS (2 kVA) with required batteries
- All necessary cables (Ethernet, Power, HDMI, USB, etc.)
- Mounting hardware and rack accessories
- Factory-tested system with OS and software preloaded
- 1 × Set of installation and configuration manuals
- Remote access credentials and support documentation

Warranty & Support

- Minimum 5-year comprehensive on-site warranty on server and peripherals
- Support for OS patches, remote diagnostics, and security updates for 5 years
- 24x7 remote support availability during SLA period

- Server OEM must be MeitY-approved or product must comply with MeitY procurement norms
- Hosting/data center provider must be empanelled under MeitY's Cloud Service Providers list (if DR is hosted externally)
- All components must carry valid OEM warranty and certification of origin.

7. Zhaga compliant Outdoor Lamp Controller (Z-OLC) with 2.4 GHz RF Mesh wireless communication

The Zhaga (Book 18) standard for the new LED street lights. The Zhaga standard, together with the DALI D4i LED-driver standard, offers extensive data on the health of the streetlight fixture, driver as well as the power grid. The municipality aims to benefit from this extensive data in the upcoming infrastructure, with an ambition to achieve at least 40% additional energy savings, improve maintenance efficiency, enhance public safety, reduce light pollution and support its Smart-City initiative. In compliance with this ambition, the Zhaga Outdoor Lamp Controller (Z-OLC) for this project must meet the following technical and functional requirements.

Integrated product	Z-OLC must be an integrated product with in-built wireless communication, lighting control, photocell and antenna.
Standard Interface	(a.) Z-OLC must offer a standardized Zhaga (Book 18) compliant interface for ease of mounting on any Zhaga (Book 18) compliant street light fixture. (b.) Compact product dimension: around 80mm diameter x 50 mm (c.) Dome enclosure must be fire retardant at least UL94 V0 (d.) IK09
Product Mounting	It should be possible to mount the Z-OLC either on: (a.) Zhaga (Book 18) compatible luminaire, or (b.) Street pole using external Zhaga (Book 18) compliant receptacle or bracket
Photocell	(a.) Z-OLC must have in-built ambient lighting sensor (photocell); (b.) Z-OLC must be able to switch the lamp on at an ambient-light level of 30 lx, and off at 45 lx. This mode must work when running in stand-alone (autonomous) mode (not connected to an LMS) and/ or when such functionality is enabled via a central light-management system (LMS).
Power Metering	(a.) Z-OLC must be able to support individual level accurate power-metering via ANSI C136.52 compliant DALI D4i and/or DALI SR drivers; (b.) Z-OLC must also support indicative calculation of daily power-usage, power-savings, and percentage (%) savings, based on logged switching times and the lamp dimming levels. Such data should be represented within LMS analytics.

Smart Data	When connected to D4I smart driver, the Z-OLC must be able to collect at least the following data from the connected D4i driver: (a) Control Gear information (DALI; MB 0) (b.) Integrated DALI Bus Power Supply (DALI part 250; MB 201) (c.) Luminaire OEM information (DALI part 251; MB 1) (d.) Energy Reporting (DALI part 252; MB 202, MB 203, MB 204) (e.) Control Gear Diagnostics & Maintenance (DALI part 253; MB 205) (f.) Light Source Diagnostics & Maintenance (DALI part 253; MB 206) (g.) Luminaire Maintenance Data (DALI part 253; MB 207) (h.) Additionally the Z-OLC must be able to collect and send the driver temperature, external supply voltage, active power and power factor data, at a regular interval
Time Management	Z-OLC must have dedicated in-built real-time clock (RTC) module with at least 24h supercap backup for accurate time keeping. This is to accommodate any interim network-loss, and in turn, provide input data for astronomical clock calculation.
Motion Sensor Support	Z-OLC must support both Digital and DALI based outdoor motion sensors: (a.) Digital motion sensor via dedicated Logical Signal Input (LSI) (b.) DALI 2.0 and DALI D4i motion sensor using DALI multi-master mode (connected to the DALI Bus without requiring any extra cabling) (c.) It must be possible to see the motion sensor trigger log data and traffic heatmaps within the LMS, if connected. This in turn may be used for non-intrusive local road traffic monitoring.
Input Voltage	18V -30V DC
Lighting Control Compatibility	Z-OLC must support the following switching and dimming protocols (LED Driver): (a.) DALI (2.0) and DALI D4i (b.) 0-10V analogue dimming
Dimming and Switching Options	Z-OLC must offer following lamp switching and dimming options: (a.) Twilight (photocell/ ambient light sensor); (b.) AstroClock (astronomical clock); (c.) Time-based scheduled dimming; (d.) Calendar-based schedules; (e.) Central ALS (central photocells for On/ Off synchronization across the City); (f.) Adaptive (motion sensor based light-on-demand, including neighbor triggering); (g.) Emergency mode through external trigger; (h.) Z-OLC must be able to control at least 4 DALI drivers from a single controller

Electrical Specification

Electrical Protection	(a.) Class II; (b.) Z-OLC must be equipped with reversed polarity protection; (c.) Short-circuit protection with auto-recovery and over-voltage protection on dimming lines.
Tilt Sensor	(a.) Z-OLC must have provision for tilt-sensor for pole hit (damage) detection
Operating Conditions	(a.) -30º C to +60º C ambient temperature, tc: 85 °C, (b.) 10-90% Rh non-condensing (c.) Product lifetime analysis (HALT detailed test report to be submitted)
Housing	(a.) IP65 or higher ingress protection rating (b.) Fire resistant (UL94-V0) housing (c.) IK09 (certificate/ test report to be submitted) (d.) No larger than 80mm diameter x 50mm height
QR Code	Each Z-OLC must be uniquely identifiable through QR code. Z-OLC must provide an additional QR code label, e.g.: for placing on the luminaire or inside the junction box
Server communication	Via Cabinet Controller to LMS
Wireless communication	(a.) Z-OLC must operate on 2.4 GHz IEEE 802.15.4 self-forming, self-healing wireless network; (b.) Z-OLC must work plug-and-play within the RF Mesh network of the local Cabinet Controller; (c.) It must be possible to assign/ associate Z-OLC to the nearby appropriate Cabinet Controller through the Commissioning mobile application.
Device to Gateway Ratio	Typical 200:1 provided local physical conditions allow for it
Network Security	Communication must employ a 128-bit AES multi-layer security configuration with end-to-end encryption.

Over-the-air update (OTA)	Over-the-air (OTA) update of the firmware (Z-OLC software) is crucial for security reasons. Safe, secure and scalable OTA is also mandatory for bug fixes and new feature updates provided by the OEM: (a.) It must be possible to update the following inside the Z-OLC: 1.) Application Software 2.) Security patches 3.) Product firmware 4.) Modem firmware 5.) Bootloader firmware (b.) It must be possible to OTA update the software/ firmware remotely, without local site support in the field; (c.) It must be feasible to OTA update the Z-OLCs in the field within minutes (say, no more than 30 minutes per Z-OLC); (d.) It must be feasible to OTA update multiple Z-OLCs simultaneously.
Remote Monitoring	(a.) It must be possible to monitor, manage, control and configure all Z-OLCs and connected street lights remotely via the central LMS and/or an Integrated Operations Centre (through APIs). (b.) Integration into wider Operations Centres (Asset-Management / SCADA) must be possible via APIs. (c.) The LMS must support monitoring, metering and analysis at both individual and group levels.
Lamp Safety Mode	In case of interim network-connectivity loss, the Z-OLC must continue operating with its predefined settings. AstroClock and/or ALS-based scheduling must still function.
Certifications & Compliance (product)	Z-OLC must be certified for at least the following standards issued by an independent authorized certification body, namely TUV, SGS, UL or equivalent. OEM must provide copies of the certificates as well as detailed test reports issued by the certification agency. Self-certification or self-testing are not accepted considering the project needs. (a.) IEC 61347-1: 2015 (international safety standard) (b.) IEC 61347-2-11: 2001, AMD1: 2017 (international safety standard) (c.) IEC 61347-2-11: 2015, AMD1: 2017 (international safety standard) (d.) EN 301 489-1 (e.) EN 301 489-17 (f.) EN 55015:2013 (g.) EN 61547:2009 (h.) EN 61000-3-2 (i.) EN 61000-3-3

Certifications & Compliance (radio equipment)	Radio module must be certified for at least the following standards by an authorized certification entity: (a.) EN 300 328, (b.) EN 301489-1, (c.) EN 301489-17, (d.) EN IEC 61000-3-2, and (e.) EN 61000-3-3 Supplier must provide copies of the certificates and detailed test reports issued by an independent authorized certification agency. Self-certification or self-testing are not accepted considering the project needs.
Standard warranty	Z-OLC must carry at least 5 years hardware warranty
Documents	The OEM supplier must provide at least the following documents: (a) Detailed technical datasheet (b) Installation manual (c) Product certifications and detailed test reports (issued by independent authorized certification body)

8. Pole-Mounted Nema-based Outdoor Lamp Controller (P-OLC) for retrofitting old streetlight fixtures with 2.4 GHz RF Mesh wireless communication

The municipality intends to equip part of existing LED street lighting installations with Nema-based pole-mount controller, which can control 1, 2 or even 4 streetlights simultaneously when on the same street pole. By adopting the Nema interface, which is widely used across traditional streetlight manufacturers, the city safeguards vendor-agnostic interchangeability and future-proofs its lighting assets. The P-OLC to work on the same 2.4 GHz wireless network created by the Cabinet Controller, meaning no additional network cost for the city. The goal is to achieve at least 40 % additional energy savings, streamline maintenance, limit light pollution and prepare the network for Smart City functions. In compliance with this ambition, the Pole Mount Nema Outdoor Lamp Controller (P-OLC) for this project must meet the following technical and functional requirements.

Integrated product	(a.) P-OLC must be an integrated product with in-built wireless communication, lighting control and antenna with Nema 5-pin receptacle (compliant with ANSI c136.41). Nema receptacle mandatory to mount the P-OLC directly on Nema street light fixture where applicable; (b.) Solution must be equipped with pole-mount adaptor including 5.5 meter power and control cable to install the P-OLC to the street pole; (c.) Solution must be equipped with under- and over-voltage protector with power cut-off provision at voltages <170V and >270V to protect the connected street light fixtures.
Lighting Control Compatibility	P-OLC must support the following switching and dimming protocols (LED Driver): (a.) 0-10V DC (b.) 1-10V DC (c.) DALI (optional) (d.) DALI 2.0, including D4i (optional)

Electrical Specification

Dimming and Switching Options	P-OLC must offer following lamp switching and dimming options: (a.) AstroClock (astronomical clock), (b.) Time-based scheduled dimming, (c.) Calendar-based schedules, (d.) Central ALS (central photocells for On/ Off synchronization across the City) (e.) Adaptive (triggered via neighbouring P-OLC with motion detection unit), (f.) Emergency mode through external trigger such as web application
Multiple Streetlight Control	Single pole mount P-OLC must be able to control up to 4 street lights with combined wattage of up to 400W
Time Management	P-OLC must have dedicated in-built real-time clock (RTC) module for accurate time keeping. This is to accommodate any interim network-loss, and in turn, provide input data for astronomical clock calculation.
Lamp Safety Mode	In case of any interim network connectivity loss, the P-OLC must continue with it's predefined settings. Astro-clock based scheduling must still continue to operate.
Motion Sensor Support	P-OLC must support both Analog and DALI (optional) based outdoor motion sensors: (a.) Analog motion sensor via dedicated input line (ANSI c136.41) (b.) DALI 2.0 motion sensor using DALI multi-master mode (connected to the DALI Bus without requiring any extra cabling) (c.) It must be possible to see the motion sensor trigger log data and traffic heatmaps within the LMS.
Input Voltage	96 - 264V AC, 50/60Hz
Surge Protection	At least 4kV, 2kA (L-N)
Electrical Protection	Class II (Overload and short-circuit protection)
Electrical Safety	P-OLC must have a galvanic isolation between high-voltage and low-voltage terminals
Operating Conditions	up to +60º C ambient temperature, tc: 85 °C; < 95% Rh non-condensing

Electrical Specification

Housing	(a.) IP66 or better ingress protection rating, when combined with an equivalent IP66 NEMA streetlight luminaire; (b.) Fire resistant (UL94-V0) housing; (c.) P-OLC outer diameter must not exceed 84mm to meet the elegance requirements.
QR Code	For traceability, each P-OLC must be uniquely identifiable through QR code. P-OLC must provide at least one additional QR code label, one for placing on the luminaire and other inside the junction box
Server communication	Via Cabinet Controller to LMS
Wireless communication	P-OLC must support: 2.4 GHz IEEE 802.15.4 self-forming, self-healing wireless network
Device to Gateway Ratio	Typical 200:1 provided local physical conditions allow for it
Network Security	P-OLC must provide for communication with a 128 AES multi-layer security configuration, with end-to-end encryption.
Over-the-air update (OTA)	Over-the-air (OTA) update of the firmware (P-OLC software) is crucial for security reasons. Safe, secure and scalable OTA is also mandatory for bug fixes and new feature updates provided by the OEM: (a.) It must be possible to update the following inside the P-OLC: 1.) Application Software 2.) Security patches 3.) Product firmware 4.) Modem firmware 5.) Bootloader firmware (b.) It must be possible to OTA update the software/ firmware remotely, without local site support in the field; (c.) It must be feasible to OTA update the P-OLCs in the field within minutes (say, no more than 30 minutes per P-OLC); (d.) It must be feasible to OTA update multiple P-OLCs simultaneously.

Electrical Specification

Remote Monitoring	(a.) It is mandatory to remotely monitor, manage, control and configure all the P-OLC's and connected streetlights via central LMS and/ or Integrated Operation Center (through APIs) (b.) Integration to overall Operation Centers (Asset Management) through APIs is mandatory (c.) Such LMS must also support monitoring, metering and analysis on individual and group level
Certifications & Compliance (product)	P-OLC must be certified for at least the following standards issued by an independent authorized certification body, namely TUV, SGS, UL or equivalent. OEM must provide copies of the certificates as well as detailed test reports issued by the certification agency. Self-certification or self-testing are not accepted considering the project needs. (a.) IEC 61347-2-11:2001, AMD1:2017 (b.) EN 61347-2-11:2001 + A1:2019 (c.) IEC 61347-1:2015, AMD1:2017 (d.) EN 62493: 2015 (e.) IEC 55015:2019 (f.) IEC 61000-3-2:2019 (g.) EN 61000-3-3:2013 + A1:2019 (h.) EN 61547:2009 (i.) IK09 (j.) IP66 (k.) RoHS
Certifications & Compliance (radio equipment)	Radio module must be certified for at least the following standards by an authorized certification entity: (a.) EN 300 328, (b.) EN 301489-1, (c.) EN 301489-17, (d.) EN IEC 61000-3-2, and (e.) EN 61000-3-3 Supplier must provide copies of the certificates and detailed test reports issued by the an independent authorized certification agency. Self-certification or self-testing are not accepted considering the project needs.
Standard warranty	P-OLC must carry at least 5 years hardware warranty
Documents	The OEM supplier must provide at least the following documents: (a) Detailed technical datasheet (b) Installation manual (c) Product certifications and detailed test reports (issued by independent authorized certification body)

9. Lighting Management System (LMS)

The municipality intends to use the Lighting Management System (LMS) for citywide feeder panel control (via Cabinet Controllers) as well as individual streetlight control, monitoring and analytics (via Outdoor Lamp Controllers, OLCs) where installed. Cabinet Controllers and OLCs are hereafter jointly referred to as 'Controllers'. LMS is key from operational, maintenance as well as smart city and security perspective. LMS shall support interlink with the city's future Central Command & Control Room through an open, well-documented REST/JSON API.

The LMS supplied under this contract shall comply with all technical and functional requirements in this document. All requirements in the following tables are mandatory unless explicitly stated otherwise. Bidder shall meet, in full, the technical and functional requirements set-out in the table below. Any variance, limitation, or omission must be stated explicitly in the "Deviation" column; silent, ambiguous, or misleading responses will be grounds for disqualification and/or contractual penalties.

Software applications	Provide a complete, fully web-based LMS suite plus Android & iOS mobile apps (see separate section) enabling remote management, monitoring and control of both group-controlled and individually-controlled streetlights across the entire city.
LMS Provision	(a.) LMS developed and owned by the OEM; resale or white-labelled third-party platforms are not acceptable. (b.) Source code must be available upon request to audit proper use of licenses and security.
Streetlight Grouping	(a.) LMS must provide a hierarchical structure for organizing the streetlights across the city in a logical manner, namely Project level, Organization (e.g. east, west, central, etc.), and Group level (e.g. different street lights). (b.) There must be option for allocating/ re-allocating the street lighting fixtures/ Controlllers across different Projects, Organizations, Groups, or Stock (e.g. a street light fixture temporarely moved for repair) (c.) There must be an option to assign a label (or also called a tag) to one or more Controlllers. This to make it easy, e.g. via external API access, to assign a 24h Dimming Profile to all OLCs, with the same label, at once.
Visualization	The visualization of the street lighting network need to be based on Google Maps, including Streetview enabled, so that city can relate the street light location in relation to local environment and other city infrastructure.
Geo-location	LMS must be able to assign street name and address automatically based on the GPS coordinates of the Cabinet Controller / OLC / street light fixture

Light Profiles	LMS must allow for an unlimited number of Light Profiles (also called, Dimming Profiles or Light Scenes) to meet the lighting needs of different streets and areas, and include the following types of Light Profiles: (a.) Fixed light level, (b.) Time based scheduling, (c.) Dynamic lighting levels (to support motion sensor based adaptive lighting)
Dynamic Light Profile	Dynamic Light Profile must allow for the following settings within the LMS: (a.) Name of profile (b.) Hold time (light at high level) in seconds, after motion sensor trigger (c.) Light level rate-up (from low to high) in seconds (d.) Light level rate-down (from high to low) in seconds (e.) Upper and lower percentage of dimming level for 6 different timeframes
Lamp Switching	LMS must support at least the following modes for lamp-switching: (a.) Based on local light sensor (i.e. photocell inside the OLC) (b.) Based on light sensors spread across the city (centralized twilight switch sensor system) (c.) Astronomical clock timer (automatic sunset/ sunrise timer based on geo-location of an Controller)
Light Profile Citywide	LMS must offer the possibility to set or change all Light Profiles for a part of the city or entire city with a single command. In other words, it must be easy to replicate a light profile for multiple OLCs and not one-by-one.
Light Profile Check	(a.) LMS must be able to visualize all the set Light Profiles over a period of time (for any specific year/ date/ time); (b.) Such overview must be available in night view mode. This is to enable the city administration to accurately check the light levels of all streetlights across the city over specific hours of the night, thereby assuring public safety.
Emergency Control	(a.) LMS must allow temporary override of all light settings, in case of an emergency (e.g. switch all streetlight fixtures to 100% light level); (b.) It should be possible to send such an override command via the LMS dashboard as well as a Mobile App.
Safety	LMS must assure that: (a.) In an unlikely event of any technical failure or network outage, the OLC's must follow their pre-set light profile; (b.) In an emergency situation, all street lights can be turned to 100% safety light level with a single click.

OLC Reporting	Regular reports generated by the Cabinet Controller / OLC (e.g. every 15 minutes) must be visible on LMS. Such reports must contain at least the following parameters: Reporting date/ time, Brightness log (hh:mm:ss) and number of motion sensor triggers (if motion sensors are included in the project).
Fault Check	LMS must visualize the following parameters for the field support team: (a.) Cabinet Controller to which RF Mesh OLC's are connected, (b.) Network relationship between the OLC within RF Mesh network, (c.) OLC's linked to specific motion sensor, (d.) OLC and the related lighting profiles, (e.) Street light fixtures with alerts/ notifications
Multiple Driver support	LMS must provide: (a.) Interface for selecting analog and digital types of OLCs/ Drivers, namely, 0-10V, 1-10V, DALI; (b.) Interface for selecting multi-channel drivers, e.g. a four channel driver (DALI Device Type 6); (c.) Interface to support DALI Device Type 7 relays and DALI Device Type 8 drivers (with native support for Tuneable White and RGWAF color applications).
Energy Monitoring	(a.) LMS must provide an aggregated Energy and CO2 consumption overview in a graphical format for the city adminstration. (b.) It must be possible to downloaded this information in .csv format
Analytics visualization	(a.) LMS must be able to visualize all the analytical data in graphical format. Such graphs must at least include an aggregrated overview of the energy used, energy saved, % energy saved, for a specific number of days, weeks or months. (c.) When motion sensors are used within the lighting network, then it must also be possible to visualize the number of triggers per sensor or a group of sensors.
Traffic Heatmap	When motion sensors are used within the lighting network (now or in near future), LMS must be able to create meaningful heatmaps.

Analytics	When Cabinet Controller / OLC's are connected to D4I smart driver, then LMS must be able to visualize all available data as written, and stored, in the following memory banks (MB) of the concerning D4i driver: (a) Control Gear information (DALI; MB 0) (b.) Integrated DALI Bus Power Supply (DALI part 250; MB 201) (c.) Luminaire OEM information (DALI part 251; MB 1) (d.) Energy Reporting (DALI part 252; MB 202, MB 203, MB 204) (e.) Control Gear Diagnostics & Maintenance (DALI part 253; MB 205) (f.) Light Source Diagnostics & Maintenance (DALI part 253; MB 206) (g.) Luminaire Maintenance Data (DALI part 253; MB 207) Additionally the Control Gear temperature, external supply voltage, active power and power factor data, should be visualized in graphical format with the possibility to select a specific day or week (out of the last three months). This will make it easier to visually identify a trend reversal at a certain date and time.
Additional Asset Information	(a.) LMS must also be able to record Street pole ID, any specific name/ ID (b.) There must be a provision to be able to write custom notes for a specific street light fixture/ OLC
Alerts/ Notifications	(a.) User must be able to see detailed Alert/ Notification per streetlight fixture. Such Notification must include data such as Controller ID, Error type, Error Message, Error date/ time. (b.) Notifications must also be available as alert messages via email. (c.) Summary of important notifications must also be available as a daily digest email. City administration must be able to set the number of users who should receive such daily digest emails. (d.) It must also be possible to send the notifications to a Central Command & Control center (Asset Management system) via API
Interoperability	(a.) LMS must offer Open API (based on Restful Json) to connect with: - 3rd party Smart City platforms, - Integrated Command & Control Centre, - Asset Management Systems - Other software systems (e.g. billing) - TALQ 2.0 certified (b.) LMS must demonstrate proven integration with at least 3 different smart city platforms and/or asset management systems. Examples must be provided as part of the tender documentation.

AI Integration	(a.) OEM shall provide example of at least one real-life operational project (with at least 5000 smart streetlights) where artificial intelligence (AI) has been applied to interlink traffic and weather data to improve the performance of the street lighting infrastructure and energy savings; (b.) Municipality reserves the right to speak with/ visit the referred municipality.
User Rights	LMS must offer a dedicated application for an advance User Rights Management: (a.) Option to provide different levels of access per User e.g. administrator versus field worker; (b.) Option to provide read and/ or write access per User; (c.) Option to provide access to specific assets e.g. specific number or type of Cabinet Controller / OLCs; (d.) Option to provide access (or revoke access) to specific Projects or Groups to a User.
Change Log Management	Main administrator must be able to see all changes made to the lighting system in the form of change logs. Such change log must include at least the following items per Controller: (1.) overview on the changes made, (2.) timestamp (date/ time), when the changes were pushed, (3.). status of the change (sent, received, processing, failed, done)
Security	(a.) LMS must have end-to-end data security (fully encrypted data communication on all levels); (b.) OEM must be able to continually upgrade the LMS without affecting the installed lighting network. In other words, LMS must offer backwards compatibility; (c.) OEM would provide such updates to the city at no additional costs to the city.
Scalability	LMS must be resilient and able to manage street lights across the city: (a.) Supplier must demonstrate at least 100,000 individual controlled light points managed across multiple cities through their LMS; (b.) Supplier must demonstrate at least 40,000 individually controller light points managed in a single city/ project using their LMS; (c.) Municipality reserves the right to speak with/ visit the referred municipality.
User Guide	LMS must offer In-App guide/ help feature in multiple languages.
Multi Language support	LMS must be available in English language. It should be possible to add other local languages easily without additional cost to the municipality.

User Interface	LMS must provide an intuitive user-interface, so that non-technical users could also understand and manage the LMS with ease.
Accessibility	LMS must be accessible from any computer or mobile device through secure access portal. Access must not be limited to a specific PC.
Secure Hosting	(a.) LMS must be available as a Software Service (SaaS) with automatic data backup on a regular basis; (b.) LMS must be hosted in a reliable, secure data centre carrying ISO/ IEC 27001 certification and / or supporting Ministry of Electronics and Information Technology (MeitY) guidelines.
License	LMS must be able to provide access to multiple users at no additional cost to the city administration. In other words, no additional charges will be paid by the city based on the number of users.

10. Mobile / Web Applications

1.) Mobile App for Field Commissioning	LMS must provide a compatible Field App for commissioning an OLC: (a.) Such an App should be able to geo-tag and auto-commission an OLC, (b.) Such an App should be available for both Android and iOS systems. (c.) All LMS users should be able to use the App at no additional cost.
2.) Web App for Operations Team	The LMS software suite must include compatible Field Apps for the Operations and Maintenance team: a.) Such an App should be able to turn all streetlights in a given area surrounding the incident to full 100% brightness. The App should also be accessible for police/ fire department, if requested at no additional costs; b.) Such a field application must support switching and dimming of individual or group of street lights within 250 meters surrounding the location of the User with the App; c.) App must also include a configurable expiration time-setting (for example, 15, 30 or 60 minutes). This is to ensure that after expiration, the selected lamp(s) automatically fall back to their pre-programmed light profile.

3.) Web App for Event Control Access	(a.) OEM shall provide an application, suited for mobile device, which make it possible for an external user to: switch a streetlight, or predefined group of streetlights, on or off, or set to a predefined dim-level. For instance, a facility manager can be granted limited access to streetlights around local sports stadium. Likewise, site manager of a area can be granted limited access to specific streetlights within the area. (b.) Acces to this application must be granted to external users by the administrator via: (1.) providing them a url, username and password; (2.) providing them a url and a unique code (as provided by adminstrator); (b3.) providing them a QR code (direct access, without log in). (c.) It must be possible to give an external user temporary access (with a start- and end date and time) or indefinite access.
4.) Web App for Cabinet Controller Setup/ Configuration	OEM shall provide mobile/ web application to setup and configuration of Cabinet Controller. Such an app should be able to perform at least the following functions: (a.) Find nearby local Cabinet Controllers via Bluetooth 5LE; (b.) Setup / configure local sim card, ethernet, wifi connectivity; (c.) Review Controller logs in-field; (d.) Review system configuration including serial number, hardware and firmware versions; (e.) Re-boot/ re-start the Controller if needed. (f.) App access strictly through centralized user login credentials.

11. Desktop Workstation

The desktop workstation for individual operators at the zone level. The workstation must be suitable for operating the Street Light Management Software and handling administrative and reporting tasks. It shall come pre-installed with a licensed Windows Operating System, MS Office suite, antivirus software, and necessary drivers. The system should have appropriate processing power, RAM, and display resolution for multi-window monitoring and data processing.

Inclusions:

- Workstation with monitor, keyboard, and mouse
- Licensed Windows OS Professional, MS Office Perpetual licence, Antivirus (Preferably QHTS)
- Pre-installed drivers and supporting utilities
- Ready for LMS access and report generation

- All cables, power adapters, and allied accessories included
- A4 size All in 1 Printer – B/W

12. Cellular / IoT Data Connectivity

The cellular/IoT data connectivity for smart streetlight controllers and feeder-level equipment, enabling real-time communication with the central LMS platform. The charges cover SIM card provisioning, activation, and monthly data usage for device communication. The service must ensure secure, uninterrupted data transmission with sufficient bandwidth and fallback mechanisms as applicable. These recurring charges shall be reimbursed by the department on a monthly basis upon submission of invoice and usage details.

Remarks / Inclusions:

- Data SIMs for field devices (NEMA, Zhaga, Cabinet/Feeder Panels, etc.)
- Monthly charges per connection
- Network uptime and coverage must meet SLA
- Secure communication for all field devices
- Reimbursement on actual monthly usage basis by department

13. Support Staff

The qualified and trained support staff from the OEM for on-site operation, maintenance, and technical support at the Control Command Centre. The deployment shall cover two shifts per day (morning and evening) to ensure round-the-clock availability of personnel for managing the Street Light Management Software, attending to alerts, coordinating with field teams, and generating daily/weekly reports. The staff shall also assist in troubleshooting, routine diagnostics, and training of municipal personnel as required.

Remarks / Inclusions:

- OEM-deployed support staff for two shifts (minimum 2 persons per day)
- Hands-on operation of LMS and hardware interface
- Coordination with field teams and OEM backend team
- Routine maintenance, troubleshooting & report management
- Support for incident handling, escalation, and documentation

14. **Web-Based Helpdesk Software for Centralized Ticketing and Service Request Management**

To provide a centralized, multi-channel, and configurable helpdesk/ticketing platform for managing complaints, service requests, maintenance calls, and support-related issues across departments, field teams, and city residents or utility users.

General Requirements

- The system shall be a web-based, centralized Helpdesk Application, accessible via browser with responsive UI (desktop, tablet, mobile).
- The software must support multi-user, multi-role, and multi-department operations.
- Hosted on-premises or cloud, depending on deployment model.
- Support for Gujarati, Hindi, English, and local regional language interfaces (multi-language support).

- Integration-ready with external systems (SCADA, CRM, IoT platforms, and mobile apps).

Functional Specifications

Feature Category	**Functional Requirement**
Ticket Management	- Raise, assign, update, and close tickets- Auto-ticket generation from emails, web forms, and IoT alerts- Manual and automated ticket categorization- SLA tracking and escalation workflow
User Management	- Admin, Operator, Supervisor, Technician roles- Department-wise access and permissions- Citizen-facing guest portal with complaint registration and tracking
Multi-Channel Input	- Web Form- Mobile App Integration- Email Parsing- WhatsApp/SMS Bot (optional)- API-based ticket creation (for IoT, SCADA systems)
SLA & Escalation Rules	- Define SLA per ticket type/category- Multi-level escalation rules- Notifications via email/SMS/WhatsApp
Dashboard & Reports	- Real-time dashboard with KPIs (open tickets, overdue, resolution time)- Zone-wise, department-wise, and issue-type analytics- Exportable reports (PDF/Excel)
Knowledge Base	- Internal knowledge articles- SOP documentation- Searchable help resources
Feedback & Closure	- Citizen feedback on ticket resolution- Rating system (1–5 stars or similar)- Closure remark and image upload
Mobile App Compatibility	- Web-app responsive UI- Optional integration with Android/iOS apps
Notifications & Alerts	- Email/SMS/Push notifications- Auto-reminders for pending actions
Audit Trail	- Complete ticket history and user actions log
Technical Specifications	
Component	**Minimum Requirement**
Architecture	Web-based, 3-tier architecture with REST APIs
Technology Stack	Open Source Preferred (Node.js/PHP/Python backend with PostgreSQL/MySQL)
Database	Relational DB (PostgreSQL/MySQL) with indexing for high performance
Operating System	Linux-based hosting (Ubuntu/RHEL), Windows optional
Authentication	Role-Based Access Control (RBAC), LDAP/Active Directory integration optional
Security	HTTPS with SSL certificate, input validation, rate limiting, user session management

Hosting	Cloud (AWS, Azure, NIC) or On-Prem Server
Browser Compatibility	Chrome, Firefox, Safari, Edge (latest two versions)
API Integration	REST APIs for integration with external systems
Backup & Recovery	Automated daily backups with retention policy (7/15/30 days)
Scalability	Support for concurrent handling of 500+ active users and 10,000+ monthly tickets
Language Support	UTF-8 encoding, Multi-language UI (minimum Hindi and English)
Data Ownership	All data shall remain the property of the client/municipality with full exportability
Deployment & Licensing	
Requirement	**Details**
Deployment Options	On-premise or Cloud-hosted (configurable)
Licensing	Perpetual enterprise model
User Licenses	Minimum 50 concurrent users, scalable
Mobile App Licenses	If offered, minimum 10 technician-level mobile app licenses
Maintenance	5-year AMC with remote and on-site support options
Training & Documentation	User manuals, admin guides, and training for operators and field staff

Inclusions & Deliverables

- Helpdesk Software with full feature access as per specification
- User Manual, Admin Manual, and SOP Documentation
- Initial setup, configuration, and data migration
- Training to staff (at least 2 sessions)
- Warranty and support agreement for 5 years
- Mobile application with installation support

Warranty & Support

- Minimum 5-year comprehensive software warranty
- Technical support via email, phone, and remote access (9×6 or 24×7 as per SLA)
- SLA-based issue response time:
  Critical: < 4 hours
  Major: < 24 hours
  Minor: < 48 hours

15.

Original Equipment Manufacturer (OEM)

To protect the city's long-term investment in smart street lighting, the capacity of the Original Equipment

Electrical Specification

Manufacturer (OEM) is as important as the provided equipment's. Only OEMs with proven, large-scale smart street lighting deployments (including Indian reference), an open LMS compatible with our needs, and a staffed Indian office offering 24 × 7 ticketing / RMA support will qualify. Compliance with all criteria is mandatory; bidders that fall short may be excluded from further evaluation.

Project Experience	(a.) OEM must have experience with delivering, installing and maintaining at least 200,000 individually controlled smart streetlights. List of key projects and relevant case studies to be provided. (b.) OEM must have at least one project with over 40,000 functional OLC's within a single city/ project. Appropriate reference including the contact details of the municipality and system integrator/ contractor must be provided. (c.) OEM must have experience with at least 1 fully operational project in India, with over 5,000 individually controller OLC's within a single city. Purchase order copy to be submitted as a proof.
LMS	(a.) OEM must provide its own LMS for remote monitoring, management, metering, controlling and configuring of the Cabinet Controllers and OLCs. (b.) Such LMS must have Open API to connect with 3rd party Smart City platforms and Integrated Command & Control Centre (c.) Such LMS must demonstrate proven integration with at least 3 smart city or asset management platforms.
Local Support	(a.) The OEM shall be headquartered in, or operate, a fully-registered Indian subsidiary / branch with a minimum of 20 employees, including support engineers. If subsidiary, then letter from the HQ as proof to be submitted. (b.) The OEM shall maintain a 24 × 7 online ticketing portal, and support in-country RMA logistics for hardware repairs and spares.

16.1 AI Analytics and Optimization Engine

To elevate the capabilities of the proposed Smart Street Lighting solution, the LMS shall incorporate an **AI Analytics and Optimization Engine** as a core module. This engine is required to leverage the rich data streams from all connected field assets (Cabinet Controllers, Outdoor Lamp Controllers) and specified external sources. The objective is to transition the system from reactive automation to intelligent, predictive, and adaptive control, thereby maximizing operational efficiency, public safety, and energy savings.

The Bidder shall meet, in full, the technical and functional requirements set out in the tables below.

16.1.1 AI-Powered Predictive Maintenance

Overview: This feature expands on the standard requirement for predictive maintenance by defining a sophisticated, data-driven approach. The AI engine shall utilize machine learning models to analyze real-time and historical operational data from each luminaire and feeder panel. Its goal is to forecast asset failures with high accuracy, enabling the transition from reactive repairs to a proactive, cost-effective maintenance strategy.

Feature Category	Functional Requirement
Asset Failure Prediction	The LMS shall include a predictive maintenance module that uses machine learning algorithms to continuously analyze asset health and forecast failures for: - LED Luminaires (e.g., lumen degradation, catastrophic failure) - LED Drivers - Cabinet Controller components (relays, power supplies)
Data Inputs for AI Models	The AI models must ingest, at a minimum, the following data: - Electrical Data: Real-time and historical voltage, current, power factor, and power consumption from each OLC and Cabinet Controller. - Operational Data: Total operating hours, number of on/off cycles, dimming level history, and driver temperature (from D4i drivers). - Maintenance History: A log of all past failures, including component type, failure mode, and date of replacement. - Environmental Data: Historical and forecast weather data (temperature, humidity, precipitation) from a public or private API.
System Output & Actions	- The system shall calculate and display a "Health Score" and a "Remaining Useful Life" (RUL) estimate for each key asset. - The LMS dashboard must provide a city-wide map visualizing asset health (e.g., using color codes like Green for Healthy, Yellow for 'Monitor', Red for 'Proactive Replacement Recommended'). - When an asset's Health Score or RUL falls below a user-configurable threshold, a proactive maintenance ticket shall be automatically generated in the Helpdesk Software, detailing the asset ID, location, and predicted failure mode.
Model Retraining	The system must include a mechanism for the AI models to be periodically retrained using new operational and maintenance data to continuously improve prediction accuracy over the system's lifetime.

16.1.2 Dynamic and Adaptive Lighting Control

Overview: This feature evolves the system from using fixed schedules and simple motion-based dimming to implementing truly dynamic illumination that responds to the complex, real-time pulse of the city. The AI engine will analyze multiple live data streams to create and deploy hyper-optimized lighting profiles that enhance public safety and maximize energy savings.

Feature Category	Functional Requirement
Traffic-Adaptive Lighting	The AI engine shall analyze real-time and historical traffic data, sourced from the streetlight motion sensors and/or integrated third-party traffic platforms (e.g., Google Maps APIs, etc). Based on this analysis, the system will: - Dynamically adjust dimming levels along entire corridors in response to changing traffic flow. - Create predictive lighting schedules based on learned weekly and seasonal traffic patterns.
Weather-Adaptive Lighting	The LMS must integrate with a real-time weather API. The AI engine will automatically adjust city-wide or zonal lighting levels in response to adverse weather conditions, such as: - Increasing brightness during heavy rain, fog, or snow to improve visibility. - Adjusting ON/OFF times based on real-time changes in ambient light due to heavy cloud cover, overriding the standard astronomical clock.
Event-Responsive Lighting	The LMS shall be capable of integrating with external calendars or data feeds for public events (e.g., festivals, sporting events, public transport schedules). The system will automatically implement pre-defined, brighter lighting profiles for the areas around an event venue to manage crowd safety.
Emergency Response Integration	The LMS must provide a secure API for integration with the City's Emergency Services (Police, Fire, Ambulance) Computer-Aided Dispatch (CAD) system. - Upon receiving a verified emergency alert, the LMS will automatically command all streetlights within a configurable radius of the incident location to 100% brightness. - This override will remain in effect until cleared by an authorized operator, providing critical visibility for first responders.

16.1.3 Multi-Domain Anomaly Detection Engine

Overview: This feature uses domain-specific anomaly detection models to analyse data aggregated across lighting, traffic, energy, environment, safety, and utilities, enabling early identification of unusual patterns and faster incident triaging across municipal departments.

Feature Category	Functional Requirement
Multi-Domain Anomaly Detection Engine	The CMS shall include an AI-powered anomaly detection module that uses machine learning models (e.g., LSTM autoencoders, isolation forests) to continuously monitor and flag unusual patterns across critical infrastructure domains such as: - Water supply and leakages - Power grid anomalies (surges, dropouts) - Abnormal traffic behavior (e.g., congestion, wrong-way movement) - Environmental hazards (e.g., unexpected spikes in pollution, noise) - Public safety irregularities (e.g., sudden crowding, noise at odd hours)
Data Inputs for AI Models	The AI models must ingest, at a minimum, the following multi-domain data: - **Electrical Systems**: Voltage/current/power factor data from smart meters and panels - **Water/Utilities**: Pressure, flow rate, pump runtime logs - **Traffic**: CCTV feeds, inductive loop data, vehicle counts, GPS traces from municipal vehicles - **Environment**: Air quality index, temperature, noise levels, weather forecasts - **Incident Reports**: Citizen complaints, operator logs, maintenance alerts
System Output & Actions	- The CMS shall display anomaly alerts on a live geo-tagged city map with severity scoring. - Alerts shall include domain, suspected cause, and timestamp. - When anomalies are detected, the system shall auto-prioritize them based on risk level and auto-generate an incident ticket in the integrated Helpdesk. - For each anomaly, the system shall suggest probable root causes and recommend next steps.
Model Retraining	The system shall support periodic retraining of anomaly detection models using newly labelled incidents, operator feedback, and post-event resolution data. Retraining frequency and criteria shall be configurable to ensure continual model accuracy.

16.1.4 Voice-Enabled GenAI Chatbot for Citizen Services

Overview

This feature introduces a voice-enabled GenAI-powered chatbot that interacts with citizens through mobile apps, websites, or phone calls. Each citizen is assigned a dedicated conversational agent capable of remembering past interactions. When a citizen returns after hours, days, or weeks, the chatbot retains context and delivers a personalized, context-aware experience. This enhances automation, service quality, and citizen satisfaction while reducing the burden on human operators.

Feature Details

Feature Category	Functional Requirement
Voice-Enabled GenAI Chatbot	This feature uses Generative AI models (e.g., GPT-4) integrated with voice and text interfaces to engage citizens naturally. Each citizen is assigned a persistent virtual agent capable of storing and recalling prior interactions, allowing personalized, contextual responses to complaints, queries, and feedback. The chatbot can be accessed through web, app, or voice channels.
Data Inputs for AI Models	**The models must ingest, at a minimum:** **- Voice/Text Input:** Complaint queries, follow-up questions, service requests in natural language **- Metadata:** Timestamp, user ID, device/channel info **- Conversation History:** Stored transcripts of prior chats with user-specific context **- Sentiment Feedback:** User tone, satisfaction scores, language polarity
System Output & Actions	- The system shall extract intent, urgency, and topic from each query. - It shall respond with the appropriate resolution, or log a complaint and route it to CMS. - Returning users will receive responses tailored to their history, status updates, and prior resolutions. - Escalation logic shall be triggered for negative sentiment or repeated queries. - Chat logs will be stored and used to fine-tune models over time.
Model Retraining	The chatbot's GenAI models and retrieval mechanisms shall support periodic fine-tuning using: - Updated user transcripts - New resolution types - Escalation outcomes - Feedback scores This ensures continued improvement in context retention, tone **understanding, and action accuracy.**

16.1.5 Energy Consumption Forecasting

Overview: This feature leverages AI-based time-series forecasting models to predict energy consumption trends at the feeder and zone levels, enabling proactive planning, budget optimization, and SLA compliance based on historical usage, weather patterns, and event-driven variations.

Feature Category	Functional Requirement
Energy Consumption Forecasting	This feature uses AI-powered time-series forecasting models to predict energy consumption at the feeder panel and zone levels, incorporating seasonal trends, weather variability, and event-driven usage patterns to support better planning and SLA compliance with energy providers.
Data Inputs for AI Models	The AI models must ingest, at a minimum, the following data: - **Energy Data**: Historical and real-time power consumption (kWh) from feeder panels - **Operational Data**: Scheduled lighting runtimes, dimming policies, manual overrides - **Environmental Data**: Historical and forecasted weather data (e.g., temperature, humidity, daylight hours) - **Event Data**: Known citywide events, holidays, or public functions that impact lighting duration
System Output & Actions	- The LMS shall display energy consumption forecasts at the feeder and zone levels for selectable timeframes (e.g., weekly, monthly, quarterly). - Forecasted peaks and consumption anomalies shall be flagged for review. - The system shall provide downloadable reports (CSV/PDF) for budget planning and compliance reporting. - Alerts shall be triggered when forecasted usage exceeds predefined thresholds aligned with SLAs or energy budgets.
Model Retraining	The system must include a mechanism to periodically retrain forecasting models using updated feeder-level consumption data and external variables to maintain forecasting accuracy over time.

The qualified and trained support staff from the OEM for on-site operation, maintenance, and technical support at the Control Command Centre. This staff will be composed of an LMS Operations Team and a dedicated AI Engine Management Team.

The deployment shall cover two shifts per day (morning and evening) to ensure availability of personnel for managing the Street Light Management Software, attending to alerts, coordinating with field teams, and generating daily/weekly reports. The staff shall also assist in troubleshooting, routine diagnostics, and training of municipal personnel as required.

In addition, a dedicated team of five (5) qualified AI Engineers shall be deployed across the same two-shift schedule to manage the AI Analytics and Optimization Engine. This team's primary responsibilities include

monitoring AI model performance, managing data pipelines, overseeing model retraining, and analyzing AI-generated insights. Personnel for this role must possess a degree in Computer Science, Data Science, or a related field, with demonstrable experience managing machine learning systems.

Remarks / Inclusions:

- OEM-deployed support staff for two shifts, which includes the LMS team (minimum 2 persons per day) and the AI Engine team (5 persons).
- Hands-on operation of LMS and hardware interface.
- Specialized management, monitoring, and optimization of the AI Engine.
- Coordination with field teams and OEM backend team.
- Routine maintenance, troubleshooting & report management.
- Support for incident handling, escalation, and documentation**.**

Installation :

7 ERECTION, TESTING & COMMISSIONING OF ELECTRICAL INSTALLATIONS

7.1 SCOPE

The intent of this specification is to define the requirements for the installation, testing and commissioning of the electrical system like M.V panels, Cables, earthing network and External lighting, Light fixtures etc. Requirement of this project shall be as specified in bill of quantities / approved drawings / general specifications or as per the battery limits fixed by the owner / consultant.

8 STANDARDS

8.1 The work shall be carried out in the best workman like manner in conformity with this specification, the relevant specification / codes of practice of the Indian Standards Institution, approved drawings and the instructions issued by the authorised representative, from time to time. Some of the relevant Indian Standards are listed elsewhere in this tender document.

The following standards and rules shall be applicable :

STANDARD NO.	PARTICULAR
IS 1913	General and safety requirements for light fitings.
IS 1944	Code of practice for lighting public thoroughfares.
IS 3528	Water proof electric lighting fittings.
IS 3553	Water tight electric lighting fittings
IS 1239.	M.S. tubular and other wrought steel pipe fittings.
IS 10322 (Parts / Sec. 3)	Luminaire for street lighting

Indian Electricity Act and rules.

All codes and standards mean the latest. Where not specified otherwise the installation shall generally follow the Indian Standard Code of Practice or the British Standard Code of Practice in the absence of Indian Standard.

8.2 In addition to the standards mentioned in above, all works shall also conform to the requirement of the following :

- Indian Electricity Act and Rules framed thereunder.
- Fire Insurance Regulations.
- Regulations laid down by the Chief Electrical Inspector of the State / State Electricity Board / Union Territory.
- Regulations laid down by the Factory Inspector of the State / Union Territory.
- Any other regulations laid down by the local authorities.
- Installation & operation manuals of original manufacturers of equipment.

9 EQUIPMENT AND ACCESSORIES SPECIFICATIONS:

This defines specifications and requirements mainly for the equipment and accessories, which are generally supplied by the erection agency.

All materials, accessories, consumable to be supplied by the contractor shall be selected from the list of specified make in consultation with the Client/Architect/Consultant without any extra cost and shall

conform to the specification given here under. The equipment shall be manufactured in accordance with current Indian Standard specifications wherever they exist or with the BS or NEC specifications, if no such IS standards are available. In the absence of any specification & if any item not mentioned in the make of the material & any where else, the materials shall be as approved by the owner / consultant in writing manner.

All similar materials and removable parts shall be uniform and interchangeable with one another. Makes of bought out items selected by the contractor must be furnished by him as per the pro forma given in elsewhere in this tender document. Tenderer should have to specify the list of makes considered in the tender while quoting the rates in the tender, in covering letter of separate letter enclosure. However, the final decision for accepting make specified by tenderer would be of client/Architect/Consultants.

Bidder to submit authorization letter for supply of light fixtures and lamps only from regional sales manager/director-sales of lighting company with duly signed and stamped with mentioning the name of project, total quantity, type of light fitting etc. The letter should be submitted with valid proof and original documents to consultant. These authorizations are to be obtained prior to supply of material and should be approved by electrical consultant/architect/Client.

10 ERECTION

The contractor shall make his own arrangement for safe transportation of all the items to the erection site and also carry out complete loading / unloading during transportation. Equipment shall not be removed from packing cases unless the floor has been made ready for installing them. The cases shall be opened in presence of the client / consultant or his authorised representative. The empty packing cases shall be returned to the stores and any document if found with the equipment shall be handed over to the client's representative. Any damage or shortage noticed shall be reported to the client / consultant in writing immediately after opening of packing cases.

10.1 Section feeder Pillar :

TESTING :

Before electrical panel is energised, the insulation resistance of each bus shall be measured from phase to ground. Measurement shall be repeated with circuit breakers in operating positions and contacts open.

Before switchgear is energised, the insulation resistance of all control circuits shall be measured from line to ground.

The following tests shall be performed on all circuit breakers during erection.

- Contact alignment and wipe shall be checked and adjustment where necessary in accordance with the breaker manufacturer's instructions.
- Each circuit breaker shall be drawn out of its cubicles, closed manually and its insulation resistance measured from phase to phase and phase to ground.
- All adjustable direct acting trip devices shall be set using values given by the consultant/ manufacturer.
- The dielectric strength of insulating oil wherever applicable, shall be checked.

Before switchgear is energised, the following tests shall be performed on each circuit breaker in its test position.

- Close and trip the circuit breaker from its local control switch push button or operating handle. Switchgear control bus may be energised to permit test operation of circuit breaker with A.C. closing with prior permission of the client / consultant.

- Test tripping of the electrically operated circuit breaker by operating mechanical trip device.
- Test proper operation of circuit breakers latch, check carriage limit switch if provided. Test proper operation of lockout device in the closing circuit. Wherever provided by simulating conditions which would cause a lockout to occur.
- Trip breaker either manually or by applying current or voltage to each of its associated protective release.
- Before switchgear is energised, the tests covered above shall be repeated with each breaker in its normal operating position.
- Capacitor banks shall be tested as per manufacturer's instructions. In addition, test for output and/or capacitance, insulation resistance test and test for efficiency of discharge device shall be carried out.
- All electrical equipment alarms shall be tested for proper operation by causing alarms to sound under simulated abnormal conditions.

(c) PROFORMA FOR PCC, MCC, DB, CONTROL PANEL TEST :

- Circuit breaker or contactor module designation / bus no.
- Insulation resistance test (contacts open, breaker racked in position)

a)	between each phase of bus	:	Mega ohm
b)	between each phase and earth	:	Mega ohm
c)	DC and AC control and auxiliary circuits	:	Mega ohm
d)	between each phase of CT / PT and between CT & PT circuit if any	:	Mega ohm

- CT checks :
  a) CT ratio
  b) CT secondary resistance
  c) CT polarity check
- Check for contact alignment and wipe.
- Check / test all releases / relays.
- Check mechanical interlocks.
- Check electrical interlocks.
- Check switchgear / control panel wiring.
- Check breaker / contactor circuit for :
  a) Closing - local & remote (wherever applicable)
  b) Tripping - local & remote (wherever applicable)
- Opening time of breaker / contactor.
- Closing time of breaker / contactor.

[This proforma shall be jointly signed by the CLIENT / PMC and the contractor in duplicate].

10.2 INSTALLATION OF CABLE NETWORK :

Cable network shall include power, control and lighting cables which shall be laid in underground trenches, cable trays, G.I. pipes, or on building structures as detailed in the relevant drawings, cable schedules or as per the client / consultant's instructions. Supply & installation of cable trays, G.I. pipes / conduits, cable glands and sockets of both end isolators, junction boxes, remote push button stations, etc. shall be under the scope of the contractor.

(a) General requirements for handling cables :

Near Each pole 1mtr. Extra Cable length should be provided at both the end.

Before laying cables, this shall be tested for physical damage, continuity, absence of cross phasing, insulation resistance to earth and between conductors. Insulation resistance tests shall be carried out with 500 / 1000 V megger.

The cables shall be supplied at site, wound on wooden drums as far as possible. For smaller length and sizes, cables in properly coiled form can be accepted. The cables shall be laid by mounting the drum of the cable on drum carriage. Where the carriage is not available, the drum shall be mounted on a properly supported axle, and the cable laid out from the top of the drum. In no case the cable will be rolled on as it produces kinks which may damage the conductor.

Sharp bending of cable shall be avoided. The bending radius for PVC insulated and sheathed, armoured cable shall not be less than 10 D, where "D" is overall diameter of the cable.

While drawing cables through DWC / G.I. pipes, conduits, RCC pipes, ensure that size of pipe is such that, after drawing cables, 40% area is free. After drawing cables, the end of pipe shall be sealed with cotton / bituminous compound.

High voltage (11 kV and above), medium voltage (240 V and above) and other control cables shall be separated from each other by adequate spacing or running through independent pipes / trays.

Armoured cables shall never be concealed in floors / roads without DWC Pipe or RCC pipes.

Joints in the cable throughout its length of laying shall be avoided as far as possible and if unavoidable, prior approval of site engineer shall be taken. If allowed, proper straight through epoxy resin tight joint shall be made, without any additional cost.

minimum loop of 3 mtr. shall be provided on both ends of the cable near SFP, and on both ends of straight through cable joint. This additional length shall be used for fresh termination in future. Cable for this loop shall be paid for supply and laying.

Cable shall be neatly arranged in the trenches / trays in such manner so that criss-crossing is avoided and final take off to the motor / switchgear is facilitated. Arrangement of cable within the trenches / trays shall be the responsibility of the contractor.

All cable routes shall be carefully measured and cable cut to the required lengths and undue wastage of cables to be avoided. The routes indicated in the drawings is indicative only and the same may be rechecked with the PMC before cutting of cables. While selecting cable routes interference with structures, foundations, pipelines, future expansion of buildings etc. should be avoided.

All temporary ends of cables must be protected against dirt and moisture to prevent damage to the insulation. For this purpose, ends of all XLPE insulated cables shall be taped with an approved PVC or rubber insulating tapes. Use of friction type or other fabric type tape is not permitted. Lead sheathed cables shall be plumbed with lead alloy.

Wherever cable rises from underground / concrete / masonry trenches to motors / switchgears / push buttons, these shall be taken in DWC / G.I. pipes of suitable size, for mechanical protection upto 300 mm. distance of concerned cable gland or as instructed by the client / consultant / PMC.

The cable pass through foundation / walls of other underground structures, the necessary ducts for opening will be provided in advance for the same. However, should it become necessary to cut holes in existing foundation of structures the electrical contractor shall determine the location and obtain approval of the client / consultant before cutting is done.

(b) LAYING OF CABLES (UNDERGROUND SYSTEM)

- Electric cable for the street lighting installation shall follow specification under the heading "MEDIUM VOLTAGE ALUMINUM XLPE CABLES". The cable color shall be yellow color for 4 core × 10 sq. mm. & Green color for 4 core × 16 sq. mm. cable & size and AMC shall be embossed / Printed on outer surface of cable at every mtr. Length.
- Cables shall be so laid in trench that this will not interfere with other underground structure. All water pipes, sewage lines or other structures which become exposed by excavation shall be properly supported and protected from injury until the filling has been rammed solidly in places under and around them. Any telephone or other cables coming in the way are to be properly shielded / diverted as directed by the owner / consultant.
- Cable shall be laid at minimum depth of 900 mm. in case of L.T. and 1200 mm. in case of H.T. from ground level. Excavation will be generally in ordinary soil. The width of the trench shall be sufficient for laying of required no. of cables.
- Sand bedding 75 mm. thick shall be made below and above the cables. Layer of bricks (full size) shall be laid above sand bedding on the sides and above the cables to cover cables completely. More than one cable can be laid in the same trench. However, the relative location of cables in trench shall be maintained till termination. The surface of the ground after back filling the earth shall be made good so as to conform in all respects to the surrounded ground and to the entire satisfaction of the client / consultant.
- RCC Hume pipe for crossing road in cable laying shall be provided. No deduction shall be made for cable laying in Hume pipe for not providing bricks, sand and excavation. RCC hump pipe at the ends shall be sealed by bituminous compound after laying and testing of cables by electrical contractor without any extra charge.

(D) TESTING OF CABLES :

i. Before energising, the insulation resistance of every circuit shall be measured from phase to ground. This requires 3 measurements if one side is grounded and 6 measurements for 3 phase circuits.

ii. Where splices or terminations are required in circuits rated above 650 volts, measure insulation resistance of each length of cable before splicing and/or terminating. Repeat measurements after splices and/or terminations are complete.

iii. DC high voltage test shall be made after installation on the following :

a) All 1100 volts grade cables in which straight through joints have been made.

b) All cables above 1100 V grade.

For record purpose test data shall include the measured values of leakage current versus time.

The DC high voltage test shall be performed as detailed below :

Cables shall be installed in final position with all the straight through joints complete. Terminations shall be kept unfinished so that motors, switchgear, transformer etc. are not subjected to test voltage.

The test voltage and duration shall be as per relevant codes and practices of Indian Standards Institution.

iv. PROFORMA FOR TESTING CABLES:

DATE OF TEST

a) Drum No. from which cable taken.

b) Cable from to

c) Length of run of this cable meter

d) **Insulation resistance test**

i) between core-1 to earth mega-ohm

ii) between core-2 to earth mega-ohm

iii) between core-3 to earth mega-ohm

iv) between core-1 to core-2 mega-ohm

v) between core-2 to core-3 mega-ohm

vi) between core-3 to core-1 mega-ohm

vii) duration used : 1 kV

e) **High Voltage test** **Voltage** **Duration**

i) between core-1 to earth

ii) between individual cores

[This proforma shall be jointly signed by the CLIENT / PMC and the contractor in duplicate].

11 COMPLETION TESTS :

After supply and installation of complete project or a particular building / area, As per I.E. rules tests shall be carried out by the contractor before switching on the power to installation and the results shall be recorded and submitted to the Site-Engineer. If results are not satisfactory / as per standards set herewith, the contractor shall identify the defects / short coming and shall rectify the same. Nothing extra shall be paid for carrying out these tests and contractor has to arrange all necessary instruments.

12 HANDING OVER / TAKING OVER: (Including all Electrical work…)

After completion of works and tests specified above, the various installations of the project can be taken over by the employer as and when these are ready in all respects after issuance of certificate from Engineer in charge with in fifteen days. The Defect Liability Period of 12 months shall start from the date, when all the installations of the project have been executed, tested as described above, successfully commissioned and handed over.

The Contractor has to produce the Final As – Built drawings duly signed by Engineer In charge, Consultant, Architect & Client before finalizing the Final bill.

Completion certificate will not be considered if as built drawings not provided by contractor as following.

Final As built documents
- As built drawings with RTP (Reproducible Tracing Paper). : 1 Set
- As built drawings with Colored Print out : 4 Sets
- Soft Copy of the same : 6 Copies

- Instruction and maintenance manual - Six copies.
- Test certificates - Six copies.

13 Defect Liability Period : (Including all Civil, Electrical work)

Defect Liability Period for Electrical work as per following (DLP will start after Final handover to client):

1)	Section Feeder Pillar With all internal Circuit breakers & Accessories	: 1 Years
2)	Poles with galvanizing or Paint	: 1 Years
3)	Light Fixtures and CMS, AI	: 5 Years
4)	All other items except above	: 1 Years

Any other item not mentioned above for electrical work shall be covered under DLP as per DLP clause mentioned in General specifications.

Security deposit will be released after completion of defect liability period of one year from the date of work completion. **Prior to release of this SD, contractor shall have to submit a new SD worth 5% of the value of total LED fixtures and CMS for remaining four years.**

Turnaround time for Contractor in Defect Liability period for any of the damage & Instruction of Engineer in charge must be less than 2 days & Work should be completed in next 2 day (For Electrical work) or 7 days (for Civil Work). If the contractor fails to comply the same the penalty of Rs. 10,000 / Day (Delay) will be deducted

LIST OF APPROVED MAKE / MANUFACTURER FOR ELECTRICAL WORK MATERIALS

S. No.	Item	Approved Make
1)	Rigid PVC Conduit (FRLS only)	ISI & FIA approved & manufactured from virgin material. Precision Plastic Industries, Nihir, Finolex, Vraj
2)	Accessories for conduit	Same make as of pipe.
3)	Flexible Copper Wires (FRLS)	Finolex, RR Kable, KEI, Gloster,Polycab, Havells
4)	Switches Use different colour switch & Accessories for Raw & UPS Power IP66 Box and Switches	Legrand (Myrius), MK (Blenze), Norisys Legrand, Scame
5)	MCBs/ELCBs/ELMCBs / Contactor	Schneider,Siemens,ABB, Lauritz Knudsen (L&T), Legrand, C&S
5a)	Time Switch (Timer)	Indo-Asian / Asian / Theben
6)	PVC tape	Steel grip, Anchor
7)	Main Cables down Stream	XLPE armoured cable for 1.1 KV as per ISI 1554. Finolex, RR Kable, KEI,Polycab, Havells, Gloster, Avocab, Raincab (Rainbow)
8)	Glands	Compression type, Heavy duty and deep threading with rubber ring and double washers. Dowells, HMI (ISI Marked), Commet, Alcon
9)	Cable Lugs	Dowells, HMI (ISI Marked), Commet, Alcon
10)	Metal Clad Plugs	Indoor –Legrand, Scame, Hensel.
		Outdoor - Legrand, Scame, Hensel.
11)	Connectors	Techno Last / Pocelain
12)	Button holder, Angle holder, ceiling rose	Anchor, CPL
13)	M.S. Boxes	Fabricated out of 16 gauge continuously welded
		(sample to be approved) with Powder coating.
14)	MCCB With all kind of communication accessories	Schneider MG (NSX) , Legrand, Lauritz Knudsen (L&T) (Dsine MTX 3.0) , ABB (TMAX)
15)	Meter (Analog Only)	Rushabh, Lauritz Knudsen (L&T),Conzerv, Schneider
16)	Digital Meter	Schneider, Conserve, Secure Meter, Lauritz Knudsen (L&T), Siemens
17)	Steel Wire Rain Forced PVC Flexible Hose	Flaxi - Hose
18)	Panel Fabricator	CPRI approved vendor with 50 KA Certification.
19)	Changeover Switch	On load type – HPL, C &S, Havell's (Euroload)
20)	DIGITAL meters, Load Manager	Schneider, Conserve, Secure Meter, Lauritz Knudsen, Siemens
21)	Light Fixture	Philips /Crompton / Bajaj / Havells / Wipro/ Helonix,/ Surya/Acon
22)	Decorative Light Fixture	Kesselec / Neri / Philips / LT
22A)	Post Top Light Fixture	Bajaj / Crompton / Philips / HAVELLS/WIPRO/ HELONIX/SURYA/Neri/LT/ Kesselec/ K-Lite / Ensave
23)	LED Driver (IP66)	Philips, Fulham, Meanwell
24)	Energy Meter	Lauritz Knudsen, Conserve, Schneider, Secure Meter, Siemens

Sr.No	Item	Approved Make
25)	CT	AE, Ashok, Kappa, C&S
26)	Smart Pole	Neri / Kesslec /Reytek
27)	DWC / HDPE Pipe(Anti Rodent Type Only)	R&B SOR Approved
28)	Any IP Junction Box (PVC / Polycerbonate), Modular external combinable enclosure system	Hensel, Spelsberg, OBO
29)	Contactor	Telemechanique, Schneider, Legrand
30)	Panel Accessories	Telemechanique, Schneider, Legrand, Siemens
31)	Watertight Plugs enclosure	Gewiss, Hensel, Spelsberg, Scame, Legrand
32)	Timer Switch (Astronomical)	Lauritz Knudsen (L&T) / INDO ASIAN / THEBEN / C & S / Asian
33)	Octagonal / Conical Poles	BAJAJ/ TRANSRAIL / VALMONT/ RR ISPAT /Ambica
34)	B Class ERW GI Pipe	Tata/ Surya / Jindal / Zenith / Asian
35)	Smart Cabinet Controller	Ecolant/ Olectr/ Thorn/ Zumtobel/ Trilux /Tvilight
36)	Chemical Type Earthing (Copper Road only)	LPI, Ashlok, OBO Betterman.
37)	Multifunction Energy Meter	Selec/ Secure/ HPL/ L&T / Elmeasure
38)	Street Light Smart Management Software	Ecolant/ Olectr/ Thorn/ Zumtobel/ Trilux /Tvilight
39)	Integrated Outdoor Lamp Controller (Z-OLC)	Ecolant/ Olectr/ Thorn/ Zumtobel/ Trilux /Tvilight
40)	pole-mounted Outdoor Lamp Controller (P-OLC) with NEMA	Ecolant/ Olectr/ Thorn/ Zumtobel/ Trilux /Tvilight
41)	Industrial-grade server	Dell / HP / Lenovo
42)	Desktop Workstation	Dell / HP / Lenovo
43)	Fire Wall	HP/ Fortinet / Sophos/ Cisco / Juniper-SRX
44)	SMC Junction Box	CLIPSAL / SINTEX / HENSEL / EPP / EVEREST / PUSHTRON (SUMIP) / GREEN COMPOSITE / SHASHWAT/ ESCO / INDO
45)	SMTPN	SOR (GoG, R&B Dept) CAT III
46)	Cable Jointing Kit	CABSEAL/ Gripseal/ M-Seal/ Poly Seal / SOR Approved
47)	HRC Fuse	Scheider / MG/ Lauritz Knudsen (L&T),
48)	Re wirable Porcelain Fuse/ Kitkat Fuse	SOR (GoG, R&B Dept) CAT III

Contractor must initial on every page of specification.

Sign & Seal of Contractor

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	**Supplementing Sub-Clause GCC 1.1** The Employer is: M/s. Energy Efficiency Services Limited Ikon Tower, 1st to 4th Floor, 24C, Film City, Noida, UP - 201301 Kind Attn.: AGM (Contracts)/ Manager (Contracts) Email: Primary - amittal@eesl.co.in Secondary - dsahani@eesl.co.in
2.	GCC 3.6	**Replace GCC 3.6.1 with the following:** **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 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 supplied c) Any other Services as specified in the Contract Documents. **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

Sl. No.	GCC Clause Ref. No.	Amendment/Supplement to GCC
		the Contract or at law to terminate the other 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 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	**Supplement GCC clause 8.2 with the following:** **Time for Completion**: Total time completion for Work is 60 months out of which the CMS work to be completed within 9 Months of the Work order, Including Integration at ICCC.
6.	GCC 13.3.1	**Replace GCC 13.3.1 with the following:** Contract Performance Guarantee (CPG) / Contract Performance Security (CPS) Within twenty-eight (28) days of the receipt of the Notification of Award (NOA/LOA) of Contract from EESL, the Contactor shall furnish Security Deposit (SD)/Contract Performance Security (CPS) in the form of a Demand Draft (DD) / Bank Guarantee (BG) / Insurance Surety Bond / NEFT of value equalling 5% of the total Contract value plus EESL Margin i.e., contract value awarded by AMC. The SD/CPS Bank Guarantee must be valid to cover the Project Execution (9 Months) + Comprehensive Maintenance duration (60 Months) + Three (3) months' claim period.

Sl. No.	GCC Clause Ref. No.	Amendment/Supplement to GCC
		Additional Security Deposit If the bid price offered by the Successful Bidder is lower than -15% (Below 15%)of the Estimated Cost of Additional, SITC and CMS work, then the Additional Security deposit shall be given in the form of DD. The security deposit will be calculated @ 20% of the difference in the [(a) Estimated Cost of work (as mentioned in BOQ)-15% of the Estimated Cost of work] and [(b) the Bid Price offered by the Selected Bidder for Optional work, SITC Work and CMS work]. 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. 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: *"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."* Apart from above, it is also to be ensured that vendor will submit an undertaking on its letter head having the following clause: *"(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*

Sl. No.	GCC Clause Ref. No.	Amendment/Supplement to GCC
		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). 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 Attachement-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. 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. BG will be released on Closure of Contract. 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 ICIC0000007. **BG advising message – IFN 760COV / IFN 767COV via SFMS**

<table>
<tr><th>Sl. No.</th><th>GCC Clause Ref. No.</th><th>Amendment/Supplement to GCC</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Field Number</th><th>Particulars (to be mentioned in Row 1)</th></tr>
<tr><td>7037</td><td>EESL543840944</td></tr>
</table>
</td></tr>
<tr><td>7.</td><td>GCC 14.2</td><td>Replace clause 14.2 with the following:
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.

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 despatch 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 avaiment of input tax credit. The employer shall determine whether the</td></tr>
</table>

Sl. No.	GCC Clause Ref. No.	Amendment/Supplement to GCC
		denial of credit is linked to the non-compliance/indirect compliance of the supplier and the said determination shall be binding on the supplier.
8.	GCC 25.2	**The GCC 25.2 i.e., If applicable (as per Technical Specifications)**
9.	GCC 25.3.1	**Replace GCC 25.3.1 with the following:** 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.
10.	GCC 25.3.2	**Replace GCC 25.3.2 with the following:** 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.
11.	GCC 26.2	**Supplement clause 26.2 with the following:** 10% of the cost of remaining work up to the date of approved or extended time limit. (As per Circular no. 9, dated 18/05/2012 issued by M. C.) In the event of exceptional circumstances, the liquidated damages may be increased beyond the 10% threshold, subject to the prior written approval of the competent authority
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.

Sl. No.	GCC Clause Ref. No.	Amendment/Supplement to GCC
14.	GCC 39.2	**Supplement 39.2.3 with the following:** • EESL reserves the right for variation in BOQ having contract within +25% of contract price and within +25% of the quantity of each item under the LoA. Prices as per original LOA shall be applicable for the revised quantity within the limits of variation specified. • For additional quantities of all items up to 25% of total LOA value, EIC may inform the bidder in writing, after obtaining necessary internal approvals. However, payment for additional quantity shall be processed only after issue of suitable amendment to LOA. • Dispatches beyond 80% of LOA quantity shall be made only after obtaining prior written concurrence of EIC, considering the provision for quantity variation up to +25% of LoA value.
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-12A** and CA certificate for work Execution / Completion details **Attachment – 12B, 12C and 12D.**
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
17	**Attachment No-17**	Confirmation regarding furnishing declaration regarding Non-Participation as a Bidding Company or as a Member of any Bidding Consortium.
18	**Attachment No-18**	Form of MoU along with declaration regarding Non-participation as a Bidding Company or as a Member of any Bidding Consortium
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

ATTACHMENT – 1

BID FORM (FORMAT OF APPLICATION)

To,
AGM (Contracts)
Energy Efficiency Services Limited.
(A JV of PSUs of Ministry of Power, Govt. of India)
2nd Floor, IKON Tower, Film City, Sector 16A,
Noida, Uttar Pradesh – 201301

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 "**Selection of Execution Partner under Consortium arrangement for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years at Ahmedabad Municipal Corporation**" 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. 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.

(o) Attachment – 17: Confirmation regarding furnishing declaration regarding Non-Participation as a Bidding Company or as a Member of any Bidding Consortium.

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 &AUTHORISED 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

ATTACHMENT - 2

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)
2nd Floor, IKON Tower, Film City, Sector 16A,
Noida, Uttar Pradesh – 201301

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 of ……20……at……

Witness:

Signature: Signature:

Name: Name:

Official address: 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 Netherlanden 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.

ATTACHMENT - 3

Tender Document No/Package No: Dated:

Package Details…….

POWER OF ATTORNEY

BIDDER TO ATTACH THE POWER OF ATTORNEY IN THEIR OWN FORMAT

ATTACHMENT - 4

Tender Document No/Package No: Dated:

(CERTIFICATE REGARDING ACCEPTANCE OF IMPORTANT CONDITIONS)

Bidder's Name& Address

To,
AGM (Contracts)
Energy Efficiency Services Limited.
(A JV of PSUs of Ministry of Power, Govt. of India)
2nd Floor, IKON Tower, Film City, Sector 16A,
Noida, Uttar Pradesh – 201301

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: Signature:
Place: Printed Name:

Designation:
Common Seal

ATTACHMENT - 5

NAME OF WORK……

BIDDING DOCUMENT NO……

(Deviations Statement)

Bidder's Name and Address:

To,

AGM (Contracts)
Energy Efficiency Services Limited.
(A JV of PSUs of Ministry of Power, Govt. of India)
2nd Floor, IKON Tower, Film City, Sector 16A,
Noida, Uttar Pradesh – 201301

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 of withdrawal
A.	COMMERCIAL DEVIATIONS:			
B.	TECHNICAL DEVIATIONS:			

Date :

Place :

(Signature).....

(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:

AGM (Contracts)
Energy Efficiency Services Limited.
(A JV of PSUs of Ministry of Power, Govt. of India)
2nd Floor, IKON Tower, Film City, Sector 16A,
Noida, Uttar Pradesh – 201301

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

ATTACHMENT - 7

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 No .....Date: .....

Bidder's Name and Address:

To,

AGM (Contracts)
Energy Efficiency Services Limited.
(A JV of PSUs of Ministry of Power, Govt. of India)
2nd Floor, IKON Tower, Film City, Sector 16A,
Noida, Uttar Pradesh – 201301

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 SETTELMENT (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			
	In case of Women entrepreneurs belonging to MSE, documentary proof to be submitted	Indian Bidders			
5	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	CERTFICATE 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			
13	Attachment – 17: Confirmation regarding furnishing declaration regarding Non-Participation as a Bidding Company or as a Member of any Bidding Consortium	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.

Attachment-10

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: A-1/2021-FSC-Part (5) GoI, MOP Dated 16.11.2021 (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 **"Selection of Execution Partner under Consortium arrangement for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years at Ahmedabad Municipal Corporation".**

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 **"Selection of Execution Partner under Consortium arrangement for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years at Ahmedabad Municipal Corporation".**

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 "Selection of Execution Partner under Consortium arrangement for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years at Ahmedabad Municipal Corporation"** 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:**

Attachment-12A

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)	☐
b.	A registered partnership firm (registered under section 59 of the Partnership Act, 1932)	☐
c.	A limited liability partnership (under the Limited Liability Partnership Act, 2008)	☐
d.	Proprietorship	☐
1.1	Details of Documents submitted as evidence for aforesaid status	(….*fill in no. and date of Documentary evidence*….)
2.	PPP MII guidelines issued by Govt. of India shall be applicable for this tender. PPP MII guidelines issued by Govt. of India shall be applicable for this tender. Only Class-I Local Suppliers with minimum local content of 60%, 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 Power sector" issued vide ref no. A-1/2021-FSC-Part (5) GoI, MOP Dated 16.11.2021. NOTE: - Only Class-I local suppliers as defined in the above tender are eligible to take part in this bidding process.	Attachment 10 is attached. Yes ☐ No ☐

3.	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: · 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. 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.	Attachment 11 is attached. Yes ☐ No ☐
4.	Bidder and it's Consortium partners is not blacklisted by Central/State/UT Government or any Public sector entities for the tender item/work.	Submitted Self Declaration on Company's Letter Head Yes ☐ No ☐

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	(*--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:	
	The experience must include:	Yes ☐

	i. At least 200,000 individually controlled OLCs (smart streetlights) delivered, installed, and maintained across projects globally. ii. At least one project with over 40,000 functional OLCs in a single city/project. iii. At least one fully operational CMS project in India with over 5,000 individually controlled OLCs within a single city. The bidder may provide MoU/MAF with more than one OEM/OLC solution provider. **i. LMS:** a) OEM / OLC solution provider must provide its own LMS for remote monitoring, management, metering, controlling and configuring of the Cabinet Controllers and OLCs. b) Such LMS must have Open API to connect with 3rd party Smart City platforms and Integrated Command & Control Centre. c) Such LMS must demonstrate proven integration with at least 3 smart city or asset management platforms. **ii. Local Support:** a) The OEM/OLC partner must have a registered Indian subsidiary/branch office with a minimum of 20 employees including support engineers. b) The OEM/OLC partner must maintain a 24 × 7 online ticketing portal and provide in-country RMA logistics for hardware repairs and spares. c) The OEM/OLC partner should have a fully functional office in Gujarat (or undertake to establish the same before award of AMC contract). Similar Project for CMS shall include supply, installation, testing and commissioning of CMS related projects including smart poles, smart electric infrastructure, control room etc.	No ☐
1.1.2	Mention no. and date of Contract for which Documentary Evidence is attached in respect of work experience	(*--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. 1.1.2 includes below mentioned similar work:	
	"Similar Work" means Dismantling, Installation and Commissioning (DIC) & / or Installation & Commissioning & / or Operation & Maintenance (O&M) & / or Repair and Maintenance Work (R&M Work) & / or Supply, Installation, Testing and Commissioning (SITC) & / or Supply of Street Lights / Heritage Lighting / Façade Lighting in any Power Distribution Utilities/DISCOMS/ULBs/or any other Govt. Organization OR LT 440 volts' work / HT 11 KV / Electrical Project execution works OR Bidder should have executed SITC job of electrical infrastructure development. OR Bidder should have executed project related to power sector infrastructure development. OR EPC of Electrical Installation Works at Plant and / or Buildings. OR EPC Works of Electrical Substation or Transmission Lines	Yes ☐ No ☐
1.1.3	Mention no. and date of Contract for which Documentary Evidence is attached in respect of work experience	(*--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. 1.1.3 includes below mentioned similar work:	
	"Similar Work" means Operation & Maintenance (O&M) / Repair and Maintenance (R&M) of Street lights/High Mast / Flood Lights. **Note:** 1. Any line shifting work will not be considered as an experience. 2. Solar Street work will not be considered.	Yes ☐ No ☐

1.1.4	The bidder should be registered in "A" class for Electrical contractor in PWD in Govt. R&B/CPWD/AMC or equivalent registration with any other state Govt. or Govt. institutions in India duly renewed for the current year. In case of successful bidder having Electrical Contractor registration outside Gujarat state, it is mandatory to obtain the Electrical Contractor Class - A registration from Govt of Gujarat (If not available) within 6 months from the date of the Award.	Documents to be submittedd
	Note: It is the responsibility of the Contractor to keep the licence valid during the execution of contract for the complete contract duration, in event of award of work.	
1.1.5	The bidder shall possess a valid electrical contractor license for the last 7 years from 31st March 2025 in bidders name and duly renewed for the current year from any central/state government.	Documents to be submittedd
	Note: In case of successful bidder having Electrical Contractor registration outside Gujarat state, it is mandatory to obtain the Electrical contractor license from Govt of Gujarat (If not available) within 2 months from the date of the LOA.	
e)	CA Certificate to be submitted by the bidder in respect of meeting the technical experience requirement as stipulated in QR of the Bidding document	Attachment 12B is attached. Yes ☐ No ☐
f)	CA Certificate to be submitted by the bidder in respect of meeting the technical experience requirement as stipulated in QR of the Bidding document	Attachment 12B is attached. Yes ☐ ☐o

Sl. No.	**Details**	**Declaration by the Bidder**

		(Declare/Tick (√) whichever is applicable)
1.2.1	Average Annual Turnover (ATO) during the last 3 Financial Years (i) Financial Year 1 (ii) Financial Year 2 (iii) Financial Year 3	INR…….. INR…….. INR……..
1.2.1.1	Duly authorized copy of audited financial statements for preceding last three Financial Year is submitted	Yes ☐ No ☐
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 ☐ No ☐
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 ☐ Start-up ☐ None ☐
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…….

Attachment-12B

CA Certificate to be submitted by the bidder in respect of meeting the Technical experience requirement as stipulated in QR of the Bidding document for "Selection of Execution Partner under Consortium arrangement for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years at Ahmedabad Municipal Corporation".

(to be submitted by the bidder in letter head of CA during submission of their bid)

Ref. No.: ……. Date: ……..

To

AGM (Contracts)
Energy Efficiency Services Limited.
(A JV of PSUs of Ministry of Power, Govt. of India)
2nd Floor, IKON Tower, Film City, Sector 16A,
Noida, Uttar Pradesh – 201301

Kind Attention:

Subject : Certification by CA of the work executed by ……..(Bidder name).

Dear Sir,

1.0 This has reference to the bid under NIT No. ……. dated ……. for the following Package submitted by ……..(**Bidder name**) against your Invitation for Bids:

Name of the Package / Tender:

2.0 We hereby confirm that the following work has been successfully executed by ……..(**bidder name**) in the last 7 years, as on the originally scheduled date of bid opening. The details of the Work order, value of the work executed and details of the completion certificate is hereby mentioned below: -

Sl no	Details of work executed	Value of work executed in Rs.	Date of completion of work
1	Work Order detail: Client name: Date of Work order: Work Order ref. no:		
2	Work Order detail: Client name: Date of Work order: Work Order ref. no:		
3	Work Order detail: Client name: Date of Work order: Work Order ref. no:		
-	----------	----------	----------

The above information have been verified from the documents provided before us by the …….(bidder name) and information and explanation given to us during our verification.

Thanking you,

Yours faithfully,

(……)

Membership no:

UDIN no:

Attachment-12C

CA Certificate to be submitted by the bidder in respect of meeting the Technical experience requirement as stipulated in QR of the Bidding document for "Selection of Execution Partner under Consortium arrangement for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years at Ahmedabad Municipal Corporation".

(to be submitted by the bidder in letter head of CA during submission of their bid)

Ref. No.: ……. Date: ……..

To

AGM (Contracts)
Energy Efficiency Services Limited.
(A JV of PSUs of Ministry of Power, Govt. of India)
2nd Floor, IKON Tower, Film City, Sector 16A,
Noida, Uttar Pradesh – 201301

Kind Attention:

Subject : Certification by CA of the work executed by ……..(Bidder name).

Dear Sir,

3.0 This has reference to the bid under NIT No. ……. dated ……. for the following Package submitted by ……..(**Bidder name**) against your Invitation for Bids:

Name of the Package / Tender:

4.0 We hereby confirm that the following work has been successfully executed by ……..(**bidder name**) in the last 7 years, as on the originally scheduled date of bid opening. The details of the Work order, value of the work executed and details of the completion certificate is hereby mentioned below: -

Sl no	Details of work executed	Total number of Street Light O&M works completed for a minimum of three years.
1	Work Order detail: Client name: Date of Work order: Work Order ref. no:	
2	Work Order detail: Client name: Date of Work order: Work Order ref. no:	
3	Work Order detail: Client name: Date of Work order: Work Order ref. no:	
-	----------	----------

The above information have been verified from the documents provided before us by the …….(bidder name) and information and explanation given to us during our verification.

Thanking you,

Yours faithfully,

(……)

Membership no:

UDIN no:

Attachment-13

CERTFICATE REGARDING NON- DEBARMENT FOR FALSE DECLARATION OF LOCAL CONTENT
[On the Letter Head]

To,

AGM (Contracts)
Energy Efficiency Services Limited.
(A JV of PSUs of Ministry of Power, Govt. of India)
2nd Floor, IKON Tower, Film City, Sector 16A,
Noida, Uttar Pradesh – 201301

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:

Attachment-14

CERTFICATE REGARDING NON-DEBARMENT / BLACKLISTING/DISQUALIFICATION
[On the Letter Head]

To,

AGM (Contracts)
Energy Efficiency Services Limited.
(A JV of PSUs of Ministry of Power, Govt. of India)
2nd Floor, IKON Tower, Film City, Sector 16A,
Noida, Uttar Pradesh – 201301

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)
2nd Floor, IKON Tower, Film City, Sector 16A,
Noida, Uttar Pradesh – 201301

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…….dated …….and 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 of ……as 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 this …….day 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.

SECURITY FORM (For Insurance Surety Bond)

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

Insurance Surety Bond No.: .....….

Date: .....…….

To:

Head (Contracts)
Energy Efficiency Services Limited.
(A JV of PSUs of Ministry of Power, Govt. of India)
Ikon Tower, 1st to 4th Floor, 24C, Film City,
Noida, UP -201301

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.

Form 3c. FORM FOR FORFEITURE OF INSURANCE SURETY BOND

To: *(insert Name and Address of the Insurer)*

Ref..: Forfeiture of Bid Security Amount against **Insurance Surety Bond** No. …… …… dated …… for …….., issued by you on behalf of M/s. ……*(insert name of the Bidder)* ……...

Dear Sirs,

Please refer to the subject Insurance Surety Bond executed by you in our favour for ……. as Bid Security for the bid submitted by M/s. ……*(insert name of the Bidder)* ……... against ….. *(insert name of the Package)* ……. ; Specification No. …….

As per the terms of the said guarantee, the **Insurer** has guaranteed and undertaken to pay immediately on demand by the Employer the amount of …….. without any reservation, protest, demur and recourse. Further, any demand made by the Employer shall be conclusive and binding on the **Insurer** irrespective of any dispute or difference raised by the Bidder.

In terms of the said guarantee, we hereby submit our claim/demand through this letter for remittance of Bid Security amount to …. *(insert name of the Employer)* …….. owing to the occurrence of the condition referred to at Sl. No. …….. The **Insurer** is requested to remit the full guaranteed sum ……. towards proceeds of the bid security in the form of Demand Draft in favour of '…. *(insert name of the Employer)* …….', payable at ….*(insert place of the Employer)*….'.

Thanking you,

For.....(Name of the Employer)

(AUTHORISED SIGNATORY)

Copy to:

…..*(Registered Office of the* **Insurer***)*….

Form 3d. FORM FOR CONDITIONAL CLAIM PENDING EXTENSION IN INSURANCE SURETY BOND

To: *(insert Name and Address of the* **Insurer***)*

Ref..: Conditional Claim against Insurance Surety Bond No. …… …… dated …… for …….. valid up to …… issued by you on behalf of M/s. ……*(insert name of the Bidder)* ……...

Dear Sirs,

Please refer to the subject **Insurance Surety Bond** executed by you in our favour on behalf of M/s. ……*(insert name of the Bidder)* ……..., who have submitted this **Insurance Surety Bond** to us towards Bid Security against ….. *(insert name of the Package)* ……. ; Specification No. …….

We, ……. *(insert name of the Employer)* …….. do hereby request you to lodge our claim/demand against the subject **Insurance Surety Bond** for full guaranteed sum. Kindly note that this claim/demand against the subject **Insurance Surety Bond** is without any further notice in case the amendment to **Insurance Surety Bond** No. …….. dated …….. extending its validity upto ……. is not got arranged by ……*(insert name of the Bidder)* ……... in our favour and are not received by us upto ……... In such an event you are requested to remit the full guaranteed amount in terms of the subject guarantee in its letter and spirit and proceeds of this **Insurance Surety Bond** shall be forwarded to us in form of demand draft in favour of '…. *(insert name of the Employer)* ……., payable at ….*(insert place of the Employer)*….'.

This is without prejudice to our right under this guarantee, any other related document with reference to this guarantee and under the law.

Thanking you,

For.....(Name of the Employer)

(AUTHORISED SIGNATORY)

Copy to:

(insert Name and Address of the Bidder)

- You are requested to do the needful so that the amendment to the subject **Insurance Surety Bond** extending the validity up to ……. is received by us by…….

Form 6c. 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 13b. FORM OF EXTENSION OF INSURANCE SURETY BOND

Ref. No..... Dated:.....

To: [Name and address of the Employer]

Dear Sirs,

Sub.: Extension of **Insurance Surety Bond** No. …… …… dated …… for ……., issued to you on behalf of M/s. ……*(insert name of the* Contractor*)* ……... in respect of Contract No. …….. dated …….. for …….. *(insert name of the Package alongwith the Project name)* ……. (hereinafter called original **Insurance Surety Bond**).

At the request of M/s.…… *(insert name of the* Contractor*)* …....., We ……*(insert name & address of the **Insurer**)* ……, a **Insurer** organized under the laws of ..... and having its Registered/Head Office at …..…….*(insert address of registered office of the **Insurer**)*…….....…… do hereby extend our liability under the above-mentioned **Insurance Surety Bond** No. ……..... Dated ...…….. for a further period of ..... Years/Months from ..... to expire on ..... Except as provided above, all other terms and conditions of the original **Insurance Surety Bond** No. ....…….... dated ..... shall remain unaltered and binding.

Please treat this as an integral part of the original **Insurance Surety Bond** to which it would be attached.

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. 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 Contractors/ Suppliers /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/ `s are required to ensure compliance to the points mentioned in corresponding Form of Insurance Surety Bond.

Attachment -16

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 of ……..……and 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 permittedassigns) 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	For and on behalf of
presence pursuant to Board of	M/s……..
Director's Resolution dated …….	
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 .....

Attachment -17

CONFIRMATION REGARDING FURNISHING DECLARATION REGARDING NON-PARTICIPATION AS A BIDDING COMPANY OR AS A MEMBER OF ANY BIDDING CONSORTIUM

(to be submitted by all the bidders along with their Bid)

[On the Letter Head]

Ref. No.: ……. Date: ……..

To,

AGM (Contracts)
Energy Efficiency Services Limited.
(A JV of PSUs of Ministry of Power, Govt. of India)
2nd Floor, IKON Tower, Film City, Sector 16A,
Noida, Uttar Pradesh – 201301

Sub: Confirmation regarding furnishing declaration regarding Non-Participation as a Bidding Company or as a member of any Bidding Consortium

Ref: NIT/Bid Document No: .....

Dear Sir,

5.0 This has reference to our bid under Ref. No. ……. dated ……. for the following Package against your Invitation for Bids:

Selection of Execution Partner under Consortium arrangement for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years at Ahmedabad Municipal Corporation.

6.0 We hereby declare that we, if pre-selected for associating with EESL for the purpose of bidding by EESL in the EOI process of the **AMC (Ahmadabad Municipal Corporation)**, would submit declaration regarding non-participation as a bidding company directly; or indirectly through their Subsidiaries, Partnership, Ownership, Individual firm; or Consortium for the Project named in Section – I: Invitation for Bids as per Section – VI, Attachment No. 17 of the Bidding

Documents and sign MoU with EESL as per the provisions of the Bidding Documents as per the format provided.

Thanking you,

Yours faithfully,

(……)

……

[*Bid signatory*]

Attachment -18

FORMAT OF MOU

…….

Selection of Execution Partner under Consortium arrangement for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years at Ahmedabad Municipal Corporation.

MEMORANDUM OF UNDERSTANDING

(Legally Binding)

BETWEEN

ENERGY EFFICIENCY SERVICES LIMITED, EESL

AND

…….

[NAME OF THE SUCCESSFUL BIDDER]

Date: _____/_____/20--

MEMORANDUM OF UNDERSTANDING / JOINT BIDDING AGREEMENT

Between

Energy Efficiency Services Limited (EESL) and [Consortium Partner Name] for bidding in Ahmedabad Municipal Corporation (AMC) Tender ID:210879

"Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Implementation of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years."

---

1. Parties to this Agreement

This Joint Bidding Agreement ("Agreement") is entered into on this ___ day of _____ 2025 by and between:

1. Energy Efficiency Services Limited (EESL), a Government of India enterprise, having its registered office at _____ ("Lead Partner" or "EESL"); AND
2. [Consortium Partner Name], a company incorporated under the Companies Act, 2013 having its registered office at _____ ("Execution Partner" or "Consortium Partner").

Collectively referred to as the "Parties" and individually as a "Party."

---

2. Purpose

The Parties have agreed to form a Consortium for the purpose of jointly submitting a bid to Ahmedabad Municipal Corporation (AMC) for the above-mentioned tender.

---

3. Roles and Responsibilities

Lead Partner – EESL shall:

- Act as the authorized representative of the Consortium before AMC.

- Fulfil tender qualification criteria under Section 2a(A) and (B).
- Sign bid documents, contract agreements, and all legally binding documents with AMC.
- Raise invoices and receive payments from AMC.
- EESL shall retain **[Quoted Percentage] of the Invoice value**, upon receipt of payment from AMC against the respective Invoice(s) for the entire term of the contract. Such arrangement is applicable for Sections 2a (A), (B) & (C) and also includes payments against Invoices raised for additional/extra works, variations, or extensions, if any.

Execution Partner – [Consortium Partner Name] shall:

- Fulfil AMC tender qualification criteria under Section 2a (C) either directly or through MoU/MAF with CMS/LMS eligible partners and ensure technical expertise/capabilities to enable execution of Section 2a (D).
- Bring in consortium partners for fulfilling the criteria for Section 2a(A) & (B).
- Fund the entire project and provide all investment for execution, including project financing, manpower, vehicles, spares, SITC, CMS, and O&M.
- Manage execution, staffing, logistics, and operations.
- Raise Invoice(s) to EESL, as per NoA/agreement with EESL.
- Be responsible for Part D (AI-related work) as awarded.
- Assist EESL in preparation and submission of the bid, including technical and financial documents.
- Indemnify and hold EESL harmless from all liabilities, claims, penalties, and damages under the AMC contract.
- Acknowledge that AMC requires all consortium members to be jointly and severally liable. While EESL remains bound under the contract, the Execution Partner shall assume full responsibility for discharging all obligations and indemnify EESL against the same.

4. AMC Interface and Delegation of Responsibilities

EESL shall remain the AMC-facing entity or in accordance with the tender. The Execution Partner shall handle day-to-day execution and site-level interactions. EESL will issue authorization to Execution Partner's representatives for AMC meetings, but all final invoices and claims shall be signed by EESL.

5. Financial Arrangements

Payment terms shall be as per following:

A. **Back-to-Back Payments:** All payments due in connection with the Principal Agreement (Agreement executed between *the client* i.e. AMC & *EESL* along with the *Consortium/Execution Partner discovered through this tender)*, shall be effected on a strict back-to-back basis. Any penalties, liquidated damages, or deductions levied by the Client under the Principal Agreement, to the extent attributable to the acts, omissions or defaults of the Execution Partner, shall be passed on to and recoverable from the Execution Partner.
B. **Receipt and Crediting of Funds:** All amounts received from the Client pursuant to the Principal Agreement shall be credited to the EESL's Account.
C. **Application of Waterfall Mechanism:** sequential order of application of funds received in the EESL Account, whereby disbursement at a subsequent level shall not be made until all obligations at the preceding level are fully discharged. Disbursements from the EESL Account shall be made in accordance with the Waterfall Mechanism, in the following order of priority:
    I. **Statutory Deductions:** In the first instance, all statutory taxes, levies, cess, duties, or other deductions required under Applicable Law shall be deducted and deposited with the relevant governmental authorities.
    II. **Retention of EESL Margin:** With second priority, EESL shall be entitled to deduct and retain its Derived Margin upon each receipt of payment from the Client. Such entitlement shall extend for the full duration of the Principal Agreement, and shall include payments relating to additional/extra works, variations, amendments, extensions, or any modifications thereof.

"Derived Margin" shall mean the profit retention of EESL calculated as follows:
Derived Margin=5×(1–Discount)

and deducted from each tranche of payment received from the Client under the Principal Agreement.

III. **Disbursement to Execution Partner**: Subject to Clauses (a) and (b) above, the residual balance shall be released to the Execution Partner strictly against submission of valid invoice(s), duly supported by requisite documentation, and only to the extent of the Execution Partner's entitlement.

---

6. Handling of Part D – AI-Related Work

To promote innovation and the adoption of emerging technologies, the execution party may explore monetization opportunities leveraging the streetlight infrastructure with the approval of AMC & EESL.
The Execution Partner shall execute and fund Part D as and when AMC assigns it to the Consortium. Any such monetization shall be subject to a revenue-sharing arrangement, under which a minimum of 10% of the gross revenue shall be shared each with AMC and EESL.

---

7. Liability and Indemnity

The Consortium shall be jointly and severally liable to AMC. Internally, the Execution Partner shall bear all liabilities and indemnify EESL against execution-related risks and obligations.

---

8. Exclusivity

The Execution Partner shall not participate with any other bidder for this AMC tender and shall work exclusively with EESL.

---

9. Term & Conversion to Formal Agreement

This MoU remains valid until replaced by a Comprehensive Consortium Agreement within 30 days of award of contract.

10. Governing Law & Dispute Resolution

This Agreement shall be governed by Indian law. Disputes shall be referred to arbitration in Delhi under the Arbitration and Conciliation Act, 1996.

11. Signatures

For Energy Efficiency Services Limited (EESL)
Name: _____
Designation: _____
(Authorized Signatory)

For [Consortium Partner Name]
Name: _____
Designation: _____
(Authorized Signatory)

Witnesses:

1. _____

2. _____

DECLARATION REGARDING NON-PARTICIPATION AS A BIDDING COMPANY OR AS A MEMBER OF ANY BIDDING CONSORTIUM IN EMPANELMENT OF EXECUTING AGENCIES FOR IMPLEMENTATION PARTNER AS CONSORTIUM MEMBER FOR PRE-BID TIE-UP FOR CARRYING OUT DISMANTLING (RETROFITTING), INSTALLATION & COMMISSIONING (DIC) AND OPERATION & MAINTENANCE OF 2.08 LAC LED STREET LIGHTS WITH AI CAPABILITY SMART CITY MANAGEMENT SYSTEM (CMS) IN AHMEDABAD MC.

(to be submitted by the pre-selected bidder prior to signing of MoU)

[On the Letter Head]

Ref. No.: ……. Date: ……..

To

{Employer's Address}

Kind Attention:

Subject : **Declaration regarding non-participation as a bidding company or as a member of any bidding consortium**.

Dear Sir,

7.0 This has reference to our bid under Ref. No. ……. dated ……. for the following Package against your Invitation for Bids:

Pre bid tie up for *…..[Name of Package]….*
Specification No.: ……..

1.1 **Your letter Ref. No. …….. ……. informing us that we have been pre- selected for associating with EESL for the purpose of bidding by EESL in the EOI process of the**

Execution Partner under Consortium arrangement for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years at Ahmedabad Municipal Corporation.

2.0 We hereby declare that we are **not** participating in EOI process of the Technical Consultancy agency i.e. BREDA as a bidding company directly or indirectly through our Subsidiaries, Partnership, Ownership, Individual firm or Consortium for the Project mentioned in the Table below:

Sl. No.	Project Name
1.	**Selection of Execution Partner under Consortium arrangement for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years at Ahmedabad Municipal Corporation**

Thanking you,

Yours faithfully,

(……)

……

[*Bid signatory*]

Attachment-A

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:

Sl. No.	**Price Component**	**Qty.**	**Rate**	**Total Amount in Rs.**
1	Selection of Implementation Partner as Consortium Member for PRE-BID TIE-UP for Carrying out Dismantling (Retrofitting), Installation & Commissioning (DIC) and Operation & Maintenance of 2.08 Lac LED Street Lights with AI Capability	XXXX	XXXXXX	XXXXXX X

Sl. No.	Price Component	Qty.	Rate	Total Amount in Rs.
	Smart City Management System (CMS) in Ahmedabad MC.			

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 …….

Attachment-C

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:

Sl. No.	Price Component	Qty.	Rate	Total Amount in Rs.
1	Selection of Implementation Partner as Consortium Member for PRE-BID TIE-UP for Carrying out Dismantling (Retrofitting), Installation & Commissioning (DIC) and Operation & Maintenance of 2.08 Lac LED Street Lights with AI Capability Smart City Management System (CMS) in Ahmedabad MC.	XXXX	XXXXXX	XXXXXX

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	Signed by for and
on behalf of the Employer	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 terms shall be as per following:

D. **Back-to-Back Payments:** All payments due in connection with the Principal Agreement (Agreement executed between *the client* i.e. AMC & *EESL* along with the *Consortium/Execution Partner discovered through this tender)*, shall be effected on a strict back-to-back basis. Any penalties, liquidated damages, or deductions levied by the Client under the Principal Agreement, to the extent attributable to the acts, omissions or defaults of the Execution Partner, shall be passed on to and recoverable from the Execution Partner.

E. **Receipt and Crediting of Funds:** All amounts received from the Client pursuant to the Principal Agreement shall be credited to the EESL's Account.

F. **Application of Waterfall Mechanism:** sequential order of application of funds received in the EESL Account, whereby disbursement at a subsequent level shall not be made until all obligations at the preceding level are fully discharged. Disbursements from the EESL Account shall be made in accordance with the Waterfall Mechanism, in the following order of priority:

IV. **Statutory Deductions:** In the first instance, all statutory taxes, levies, cess, duties, or other deductions required under Applicable Law shall be deducted and deposited with the relevant governmental authorities.

V. **Retention of EESL Margin:** With second priority, EESL shall be entitled to deduct and retain its Derived Margin upon each receipt of payment from the Client. Such entitlement shall extend for the full duration of the Principal Agreement, and shall include payments relating to additional/extra works, variations, amendments, extensions, or any modifications thereof.

"Derived Margin" shall mean the profit retention of EESL calculated as follows:
Derived Margin=5×(1–Discount)

and deducted from each tranche of payment received from the Client under the Principal Agreement.

VI. **Disbursement to Execution Partner**: Subject to Clauses (a) and (b) above, the residual balance shall be released to the Execution Partner strictly against submission of valid invoice(s), duly supported by requisite documentation, and only to the extent of the Execution Partner's entitlement.

<u>The payment shall be processed upon receipt of following documents: -</u>

I. Acknowledgement of NOA/LOA and signing of Contract Agreement.

II. The Agency shall provide Contract Performance Guarantee (CPG)/ Insurance surety bond/ Demand Draft / Bank Transfer for the value as specified in the contract within Twenty (28) days including confirmation through SFMS. (CPG Clause mentioned elsewhere in the document).

III. The agency shall provide the copy of Insurance document as per GCC valid for the entire project duration.

IV. Payments will be released after submission of payment confirmation Slip / Payment advice of the client to EESL and confirmation of payment credit in EESL account. EESL may open ESCROW account with the consortium partner / successful bidder as per mutual agreed terms for payment withdrawal mechanism.

V. Agency will raise/submit GST Invoice as per above or as per the law for the time being in force, only after compliance of Payment Terms and its certification by EESL Officer in charge (OIC) or its authorized representative.

a) The payment shall be inclusive of all charges except applicable GST, which shall be paid extra. Taxes should be indicated separately on the invoice.
b) Payment shall be released upon the passing of GST- ITC to EESL within prescribed timeframe in GST Law and after deduction of all applicable Taxes (Direct and indirect).

VI. The amount will be payable in Indian Rupees as per payment milestones/ terms after successful completion of services rendered as per the deliverables mentioned in scope of work.

VII. No advance payment shall be made.

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****

Appendix-2 to Contract Agreement

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****

Appendix-4 to Contract Agreement

TIME SCHEDULE

1. Completion Time Period:

Total time completion for Work is 69 months – 9 Months for Project Execution and 60 Months for O&M.

****End of Appendix-4****

Appendix-5

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****

Appendix-6

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****

Appendix-7

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****

Appendix-8

GUARANTEES, LIQUIDATED DAMAGES FOR NON – PERFORMANCE

As applicable as per Technical Specs

Appendix-9 to Contract Agreement

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: -

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	**(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. **(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

			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. **(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. **(d)** If after splitting MSE

			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. **(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

			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.
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	(a) If MSE is L1, 100% order will be given to MSE. (b) If MSE is within the range of L1 + 15%, 100% order will be given to MSE subject to price matching with L1 bidder. (c) If MSE is not L1 and not

			in range of L1 + 15%, no work will be given to MSE.

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: "Selection of Execution Partner under Consortium arrangement for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years at Ahmedabad Municipal Corporation".

[To be Filled Online Only]

PRICE BID					
Name of work	**Selection of Execution Partner under Consortium arrangement for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years at Ahmedabad Municipal Corporation.**				
Tender Number	**NIT Bid Document No: EESL/06/2025-26/SLNP/AMC/OTE/252608009**				
Bidder / Firm Name	**To be filled by the Bidder.**				
Sl. No.	**Description**	**Unit of Measurement (UOM)**	**Total Cost Estimate in Rs. (Excl. GST)**	**Discount to be offered in %**	**Total Price after Discount Exclusive of GST (in Rs.)**
A	**B**	**C**	**D**	**E**	**F = D X (1 – E%)**
1	Selection of Execution Partner under Consortium arrangement for Comprehensive Operation & Maintenance of Street Light Poles, SITC of Street Light Work, SITC & Execution of Centralized Smart City Management System (CMS for streetlight) and optional AI-related work at various places of Ahmedabad city for 5 Years at Ahmedabad Municipal Corporation.	Nos.	₹ 5,24,87,44,775.00	**To be filled by Bidder.** **Please fill the discount in excel sheet available at e-portal only**	**Not to be filled by the Bidder.** **(Total cost shall be automatically calculated based on D and E columns)**

Other terms and conditions: -

1. The Bidder shall indicate in the Price Bid, the discount to be offered for the Goods & Services in the prescribed format only. Bidders shall quote for the complete requirement of Goods and Services specified under the Contract on a single responsibility basis, failing which such Bids will not be taken into account for evaluation and will not be considered for award.
2. 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.
3. If there is a discrepancy between words and figures, the amount written in words will prevail.
4. Any other item as required for commissioning the system for reliable and efficient operation to be provided within the quoted price.
5. The above prices are exclusive of GST.
6. Please note that selection of the bidder will be done on the techno-commercially acceptable bid and L-1 (Least Cost) basis 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.
7. 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.: _____

Sr. No.	Description	Amount	
SECTION-A	**Comprehensive Operation and Maintenance contract of Street Light Poles (excluding cable supply and cable related work) at various places of Ahmedabad city (As per ANNEXURE A) for 2,07,163 streetlight Poles Per Month.**	**Cost Estimate in Rs.**	**Evaluated Price in Rs. after Discount**
	Amount of 1 month	1,75,23,751.30	**Not to be filled by the Bidder.** **(Total cost shall be automatically calculated based on E column from the Price Bid)**
	Amount for 1st Year (1 month x 12 nos)	21,02,85,015.60	
	Amount for 2nd Year (1.03 x Amount of 1st Year)	21,65,93,566.07	
	Amount for 3rd Year (1.06 x Amount of 1st Year)	22,29,02,116.54	
	Amount for 4th Year (1.09 x Amount of 1st Year)	22,92,10,667.00	
	Amount for 5th Year (1.12 x Amount of 1st Year)	23,55,19,217.47	
	Total Amount of 5 Years (SECTION-A)	**1,11,45,10,582.68**	
SECTION- B1	**Optional Price Schedule for Street Lighting System**		
	Amount for 1st Year (1 month x 12 nos)	13,06,48,343.40	
	Amount for 2nd Year (1.03 x Amount of 1st Year)	13,45,67,793.70	
	Amount for 3rd Year (1.06 x Amount of 1st Year)	13,84,87,244.00	
	Amount for 4th Year (1.09 x Amount of 1st Year)	14,24,06,694.31	
	Amount for 5th Year (1.12 x Amount of 1st Year)	14,63,26,144.61	
	Total Amount of 5 Years (SECTION-B1)	**69,24,36,220.02**	
SECTION- B2	**SITC Work**		
	Amount of 1st Year	41,77,86,999.55	

Sr. No.	Description	Amount
	Amount of 2nd Year (1.03 x Amount of 1st Year)	43,03,20,609.54
	Amount of 3rd Year (1.06 x Amount of 1st Year)	44,28,54,219.52
	Amount of 4th Year (1.09 x Amount of 1st Year)	45,53,87,829.51
	Amount of 5th Year (1.12 x Amount of 1st Year)	46,79,21,439.50
	Total Amount of SITC Work (SECTION-B2)	**2,21,42,71,097.90**
	Total Amount of O & M (SECTION B1+ SECTION B2)	**2,90,67,07,317.35**
SECTION- C	**CMS and SFP Work**	
	Implementation of City Management System (for Street Light)	56,47,00,520.00
	Section Feeder Pillar Work (Consider 50% New)	16,18,56,250.00
	Section Feeder Pillar Upgradation Work (Consider Remaining 50% Upgradation Amount)	2,25,55,330.35
	Total Amount of Section Feeder Pillar (SECTION-C)	**74,91,12,100.35**
	Total of SECTION-A+ SECTION-B1+ SECTION-B2+ SECTION-C	**4,77,03,30,000.00**
SECTION- D	**AI Work**	
	AI work	47,84,14,775.00
	Total Amount of Section Feeder Pillar (SECTION-D)	**47,84,14,775.00**
	Total of SECTION-A+ SECTION-B1+ SECTION-B2+ SECTION-C + SECTION- D	**5,24,87,44,775.00**

Sr No.	Description	Unit	Quantity	Estimated		Quoted Value	
				Rate	Total	Discount Offered by Bidder	Evaluated Price in Rs. after Discount
SECTION-A, O & M WORK							
1	Street Light pole with < = 30 w LED light fitting (With Single Arm)	No	1,15,998.00	71.25	82,64,857.50	**Not to be filled by the Bidder.** **(Total Percentage of discount automatically derived based on column E from the Price Bid table)**	**Not to be filled by the Bidder.** **(Total cost shall be automatically calculated based on the discount offered by bidder from the Price bid table)**
2	Street Light pole with < = 30 w LED light fitting (With Two Arm)	No	1,626.00	78.85	1,28,210.10		
3	Street Light pole with < = 30 w LED light fitting (With Three Arm)	No	8	85.50	684.00		
4	Street Light pole with LED light fitting between 31w to 70 w (With Single Arm)	No	35,858.00	85.50	30,65,859.00		
5	Street Light pole with LED light fitting between 31w to 70 w (With Two Arm)	No	2,486.00	93.10	2,31,446.60		
6	Street Light pole with LED light fitting between 31w to 70 w (With Three Arm)	No	148	99.75	14,763.00		
7	Street Light pole with LED light fitting between 31w to 70 w (With Four Arm)	No	12	107.35	1,288.20		
8	Street Light pole with LED light fitting between 71w to 135 w & Above (With Single Arm)	No	31,241.00	99.75	31,16,289.75		
9	Street Light pole with LED light fitting between 71w to 135 w & Above (With Two Arm)	No	13,604.00	107.35	14,60,389.40		
10	Street Light pole with LED light fitting between 71w to 135 w & Above (With Three Arm)	No	1,730.00	114.00	1,97,220.00		
11	Street Light pole with LED light fitting between 71w to 135 w & Above (With Four Arm)	No	192	121.60	23,347.20		
12	Street Light pole with SMART LED light fitting between 80w to 250 w (Excluding LED Fixture, Driver, SPD, Smart Controller, Over Voltage Protection Devices). (With Single Arm)	No	2,222.00	85.50	1,89,981.00		

Sr No.	Description	Unit	Quantity	Estimated		Quoted Value	
				Rate	Total	Discount Offered by Bidder	Evaluated Price in Rs. after Discount
13	Street Light pole with SMART LED light fitting between 80w to 250 w (Excluding LED Fixture, Driver, SPD, Smart Controller, Over Voltage Protection Devices) (With Two Arm)	No	1,695.00	99.75	1,69,076.25		
14	Street Light pole with SMART LED light fitting between 80w to 250 w (Excluding LED Fixture, Driver, SPD, Smart Controller, Over Voltage Protection Devices) (With Three Arm)	No	17	114.00	1,938.00		
15	Street Light pole with SMART LED light fitting between 80w to 250 w (Including LED Fixture, Driver, SPD, Over Voltage Protection Devices) (With Single Arm) (After guarantee period over)	No	8	114.00	912.00		
16	Street Light pole with SMART LED light fitting between 80w to 250 w (Including LED Fixture, Driver, SPD, Over Voltage Protection Devices) (With Two Arm) (After guarantee period over)	No	41	128.25	5,258.25		
17	Ring Pole with Four Smart fitting	No	5	121.60	608.00		
18	Ring Pole with Four fitting	No	27	121.60	3,283.20		
19	High Mast Pole with LED fittings (12.0 mt to 30.0 mt High)	No	227	1,710.95	3,88,385.65		
20	High Mast Pole with Conventional (Sodium / MH) fittings (12.0 mt to 30.0 mt High)	No	18	2,566.90	46,204.20		
21	Monthly charges for the Provision of cellular / IoT data connectivity for smart streetlight controllers and feeder-level equipment, enabling real-time communication with the central LMS platform.	No	4500	47.50	2,13,750.00		
				Total	**1,75,23,751.30**		

Sr No.	Description	Unit	Quantity	Estimated		Quoted Value	
				Rate	Total	Discount Offered by Bidder	Evaluated Price in Rs. after Discount
Note: It is mandatory for the successful bidder to execute this work as many times and for as much quantity as required, based on the actual site conditions, throughout the entire contract period, as and when needed.							
1	**Section Feeder Pillar**						
1.1	**Installation of Section Feeder Panel** Installation Testing and Commissioning of New / existing section feeder pillar as said location by engineer in charge complete in all respect as it is original with necessary cable termination, with extra required various sizes cables & with cable joints if needed etc. as per requirement or as per instruction of engineer in charge.	Set	50	5051.15	2,52,557.50	**Not to be filled by the Bidder.** **(Total Percentage of discount automatically derived based on column E from the Price Bid table)**	**Not to be filled by the Bidder.** **(Total cost shall be automatically calculated based on the discount offered by bidder from the Price bid table)**
1.2	Section Pillar Type-A, Each Door of Size Approx Height 1250mm, Length 450mm, 16 Guage	no	149	3,683.15	5,48,789.35		
1.3	Section Pillar Type-B, Each Door of Size Approx Height 750mm, Length 375mm, 16 Guage	no	122	2,630.55	3,20,927.10		
1.4	SITC of Section Pillar Stand of Size 40mm x 40mm x 6mm angle, Height 950mm, Length 90mm, width 600mm.	no	10	2,946.90	29,469.00		
1.5	Painting of Existing Section Feeder Panel Complete with two coats of Aluminium Paint	no	100	523.45	52,345.00		
1.6	Dismentalling of SFP	no	500	1,052.60	5,26,300.00		
1.7	Muffing of SFP	no	500	3,998.55	19,99,275.00		
	Total of 1.0				**37,29,662.95**		
2	**Cable Trenches, Manholes & Pipes**						

Sr No.	Description	Unit	Quantity	Estimated		Quoted Value	
				Rate	Total	Discount Offered by Bidder	Evaluated Price in Rs. after Discount
2.1	Making trench in soft soil of suitable width of 90 cms deep from the final ground level or road level for laying cable or locating the fault all over the run and backfilling the same & clearing the site by removing debris & Shifting of the debris & making site good As per the Instruction of the Engineer Incharge.	mt	75,000.00	43.70	32,77,500.00		
2.2	Making trench in Hard murum / Tar Road of suitable width of 90 cms deep from the final ground level / road level for laying cableor locating the fault all over the run and backfilling the same and making the surface proper. by removing debris & Shifting of the debris & making site good As per the Instruction of the Engineer Incharge.	mt	15,000.00	58.90	8,83,500.00		
2.3	(B) If additional machinery like hammer driller or JCB use [Add]	mt	25,000.00	280.25	70,06,250.00		
2.4	Covering of cable with second class bricks laid cover the cable crosswise & also on both sides with covering of 7. 5 Cms. layer of sand above & below cable (cable shall be laid in 0.9mtr.deep & 0.4 Mtr.wide trench). Where there are more than one cable in the trench on either side of the cable, 5 Cms. over lapping of bricks shall be provided.	mt	1,000.00	126.35	1,26,350.00		
2.5	Driling the road without breaking the road surface (Asphalt) for laying of cable for feeding power supply by making Suitable size of holes at both ends complete. (A) Up to 100 mm bore dia	mt	4,000.00	386.65	15,46,600.00		
2.6	Driling the road without breaking the road surface (Asphalt) for laying of cable for feeding power	mt	1,453.00	483.55	7,02,598.15		

Sr No.	Description	Unit	Quantity	Estimated		Quoted Value	
				Rate	Total	Discount Offered by Bidder	Evaluated Price in Rs. after Discount
	supply by making Suitable size of holes at both ends complete. (B) Up to 150 mm bore dia						
2.7	Providing & laying. Double walled corrugated pipes (DWC) of polyethylene(conforming to IS 14930 II) Anti Rodent type with necessary connecting accessories of same material at required depth for laying of cable. below ground / road surface for enclosing cable with Excavation and backfilling the same to make ground as per original. (A)50 mm dia	mt	90,000.00	58.90	53,01,000.00		
2.8	Providing & laying. Double walled corrugated pipes (DWC) of polyethylene(conforming to IS 14930 II) Anti Rodent type with necessary connecting accessories of same material at required depth for laying of cable. below ground / road surface for enclosing cable with Excavation and backfilling the same to make ground as per original. (C)90 mm dia	mt	526	90.25	47,471.50		
2.9	Providing & laying. Double walled corrugated pipes (DWC) of polyethylene(conforming to IS 14930 II) Anti Rodent type with necessary connecting accessories of same material at required depth for laying of cable. below ground / road surface for enclosing cable with Excavation and backfilling the same to make ground as per original. (D)120 mm dia.	mt	100	129.20	12,920.00		
2.1	Providing & laying approved make ISI marked HDPE 6Kg / cm2 (Class-3) as per IS:4984:1995 PE-80 to be erected at road crossing on or floor as directed for laying of cable. The pipes as following size of dia & weight per 6 mtr. (E) 90 mm inner Dia	mt	40,000.00	462.65	1,85,06,000.00		

Sr No.	Description	Unit	Quantity	Estimated		Quoted Value	
				Rate	Total	Discount Offered by Bidder	Evaluated Price in Rs. after Discount
2.11	Providing & laying approved make ISI marked HDPE 6Kg / cm2 (Class-3) as per IS:4984:1995 PE-80 to be erected at road crossing on or floor as directed for laying of cable. The pipes as following size of dia & weight per 6 mtr. (F) 110 mm inner Dia.	mt	40,000.00	688.75	2,75,50,000.00		
	Total of 2.0				**6,49,60,189.65**		
3	**Cable**						
3.1	SITC of Flexible PVC insulated multi strand multi core 1.1 kv grade ISI marked copper wires of following size to be erected as directed. (f) 1.50 Sq.mm 4 core round PVC sheathed	Mtr	1	60.80	60.80		
3.2	**Laying of XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables in Existing Cable Trench / Pipe 50 sq.mm x 3.5 c Al. cable**	Mtr	500	16.15	8,075.00		
3.3	35 sq.mm x 3.5 c Al. cable	Mtr	500	16.15	8,075.00		
3.4	25 sq.mm x 4 c Al. cable	Mtr	15,000.00	11.40	1,71,000.00		
3.5	16 sq.mm x 4 c Al. cable	Mtr	15,000.00	11.40	1,71,000.00		
3.6	10 sq.mm x 4 c Al. cable	Mtr	15,000.00	11.40	1,71,000.00		
3.7	existing laid Cable recovery (Per mtr Length),	Mtr	10,500.00	11.40	1,19,700.00		

Sr No.	Description	Unit	Quantity	Estimated		Quoted Value	
				Rate	Total	Discount Offered by Bidder	Evaluated Price in Rs. after Discount
3.8	**Cable Jointing Disconnecting the cable connection and Providing straight joint with PVC mould using heat shrink /cast resin type epoxy compound Insulating material and making the joint complete using necessary in line connectors, hardener, earth continuity connection, spacers etc. and reconnecting the same & ensure the joint resistance within the limits as per IS.**						
3.8.1	(A) up to 25 Sq mm Cable	no.	20,119.00	1,019.35	2,05,08,302.65		
3.8.2	(B) 35 to 95 Sq. mm cable.	no.	1	1,458.25	1,458.25		
3.9	Making of burnt Loop-IN, Loop-Out in poles	no.	5,400.00	250.80	13,54,320.00		
	Total of 3.0				**2,25,12,991.70**		
4	**Street Light Pole**						
4.1	Installation Testing & Commissioning up to 6 Mtr Tubuler Pole/ Swaged Pole. with All kind of Accessories MCB, Junction Box, Pole Numbering With 2 coat of Paint, Muffing, stud type terminal and arrangement for cable termination as per details given by manufacturer considering site requirement.	no	2,336.00	2,289.50	53,48,272.00		
4.2	Installation Testing & Commissioning up to 6 Mtr. Octagonal pole/ Conical pole, any flanged mounted pole with All kind of Accessories MCB, Junction Box, Pole Numbering With 2 coat of Paint, stud type terminal and arrangement for cable termination as	no	22	1,101.05	24,223.10		

Sr No.	Description	Unit	Quantity	Estimated		Quoted Value	
				Rate	Total	Discount Offered by Bidder	Evaluated Price in Rs. after Discount
	per details given by manufacturer considering site requirement.						
4.3	Installation Testing & Commissioning up to 7 Mtr. to 10 Mtr. Tubuler Pole/ Swaged Pole. with All kind of Accessories MCB, Junction Box, Pole Numbering With 2 coat of Paint, Muffing stud type terminal and arrangement for cable termination as per details given by manufacturer considering site requirement.	no	2,644.00	3,619.50	95,69,958.00		
4.4	Installation Testing & Commissioning up to 7 Mtr.to 10 Mtr Octagonal pole/ Conical pole, any flanged mounted pole with All kind of Accessories MCB, Junction Box, Pole Numbering With 2 coat of Paint, stud type terminal and arrangement for cable termination as per details given by manufacturer considering site requirement.	no	1,879.00	1,473.45	27,68,612.55		
4.3	Installation Testing & Commissioning up to 11 Mtr. to 16 Mtr.Tubuler Pole/ Swaged Pole.with All kind of Accessories MCB, Junction Box, Pole Numbering With 2 coat of Paint, Muffing stud type terminal and arrangement for cable termination as per details given by manufacturer considering site requirement.	no	24	7,125.00	1,71,000.00		

Sr No.	Description	Unit	Quantity	Estimated		Quoted Value	
				Rate	Total	Discount Offered by Bidder	Evaluated Price in Rs. after Discount
4.4	Installation Testing & Commissioning up to 11 Mtr.to 16 Mtr Octagonal pole/ Conical Pole, any flanged mounted pole with All kind of Accessories MCB, Junction Box, Pole Numbering With 2 coat of Paint, stud type terminal and arrangement for cable termination as per details given by manufacturer considering site requirement.	no	5	3,800.00	19,000.00		
4.4	Providing cement concrete.for foundation or for concrete filling in 1:2:4 ratio with 20 to 25 mm stone metal duly plastered with necessary curing for pole /Panel muffing or any other purpose.	Cu.Mtr	500	4,823.15	24,11,575.00		
4.5	Providing TMT Bar FE 500/500D reinforcement for RCC work including bending, binding and placing in position complete upto floor two level.	Kg.	25,000.00	71.69	17,92,175.00		
4.6	SITC of 0.1 to 2 Mtr G.I.bracket with 2 coat P.U. Paint with primer(Any Arm Bracket as per architect design). Note : Sample must be Approved from Client / Architect / Consultant before supply	Kg.	25,000.00	109.25	27,31,250.00		
4.7	Painting of street light pole with bracket complete with two coats of Aluminium paint for following size of pole. (A) up to 4 mtr	no	64	202.35	12,950.40		
4.8	Painting of street light pole with bracket complete with two coats of Aluminium paint for following size of pole. (B) up to 6 mtr.	no	5,445.00	249.85	13,60,433.25		
4.9	Painting of street light pole with bracket complete with two coats of Aluminium paint for following size of pole. (C) up to 9 mtr	no	500	315.40	1,57,700.00		

Sr No.	Description	Unit	Quantity	Estimated		Quoted Value	
				Rate	Total	Discount Offered by Bidder	Evaluated Price in Rs. after Discount
4.1	Painting of street light pole with bracket complete with two coats of Aluminium paint for following size of pole. (D) up to 10 to 16 mtr	no	598	524.40	3,13,591.20		
4.11	PU base primer and PU Paint on pole up to 4Mtr.	no	100	285.00	28,500.00		
4.12	PU base primer and PU Paint on pole above4 Mtr to 5Mtr.	no	5	308.75	1,543.75		
4.13	PU base primer and PU Paint on pole Above 5 Mtr to 6Mtr.	no	5	332.50	1,662.50		
4.14	PU base primer and PU Paint on pole Above 6 Mtr. to 7.5Mtr.	no	5	363.85	1,819.25		
4.15	PU base primer and PU Paint on pole above 7.5 to 8.5Mtr.	no	100	417.05	41,705.00		
4.16	PU base primer and PU Paint on pole for 9Mtr.	no	50	453.15	22,657.50		
4.17	PU base primer and PU Paint on pole for 10Mtr.	no	50	507.30	25,365.00		
4.18	PU base primer and PU Paint on pole for 11Mtr.	no	50	562.40	28,120.00		
4.19	PU base primer and PU Paint on pole for 12Mtr.	no	50	608.00	30,400.00		
4.2	PU base primer and PU Paint on pole for 13Mtr.	no	100	645.05	64,505.00		
4.21	PU base primer and PU Paint on pole for 16Mtr.	no	100	699.20	69,920.00		
4.22	SITC of Pole Numbering as per Engineer in charge, Charges per pole.	no	6,202.00	125.40	7,77,730.80		
4.23	Pole dismantling, carting and to submit at AMC store. (4 mtr to 10 mtr height)	no	3,688.00	1,009.85	37,24,326.80		

Sr No.	Description	Unit	Quantity	Estimated		Quoted Value	
				Rate	Total	Discount Offered by Bidder	Evaluated Price in Rs. after Discount
4.24	Pole dismantling, carting and to submit at AMC store. (10 mtr to 16 mtr height) 12 NOS OF Foundation BOLT	no	1,765.00	2,354.10	41,54,986.50		
4.25	Supply of Foundation bolt for 12 Mtr. To 30 Mtr. High Mast as per standard.	job	1	8,417.95	8,417.95		
4.26	**Pole Alignment** **Any height and type pole alignment**	no	531	247.95	1,31,661.45		
4.27	Supply and Installation for Modification work of relocation of Junction Box upto 1.2 Mtr. From bottom. Scope of work:- Hole Drilling and Fixing of Junction box with loop in loop out cable in Existing GI / DWC Pipe with connection of Fixtures and earthing wire	no	990	893.95	8,85,010.50		
4.28	Supplying and erecting A class Galvanized iron pipe having smooth finished bore of the pipe on both ends erected nuts and bolts along the pole / wall shaping the pipe as per site requirement. Pipe dia as following. (A) 25 mm Dia	Mtr	1	162.45	162.45		
4.29	Supplying and erecting A class Galvanized iron pipe having smooth finished bore of the pipe on both ends erected nuts and bolts along the pole / wall shaping the pipe as per site requirement. Pipe dia as following. (B) 50 mm Dia	Mtr	1	283.10	283.10		

Sr No.	Description	Unit	Quantity	Estimated		Quoted Value	
				Rate	Total	Discount Offered by Bidder	Evaluated Price in Rs. after Discount
4.3	RCC/Asphalt road cutting to accommodate C-PVC 25 mm heavy duty pipe minimum 2 x 2 inch (DXW) for cable laying and reinstate with cementing in proper manner. (It also include supply of C-PVC 25 mm heavy duty pipe & laying of pipe). Note : It is mandatory in the scope of successful bidder to execute this work as many times (for as as many quantity) as per actual site conditions during entire contract period as and when required.	rmt	1	578.55	578.55		
4.31	MS tubular sleeve 2 mtr long 219 mm dia extention piece	no	125	6,355.50	7,94,437.50		
	Total of 4.0				**3,74,74,534.10**		
5	**Earthing**						
5.1	Chemical Type Earthing Supplying & erecting in earthpit of minimum bore dia. 225mm size , approved make Safe Earthing Electrode consisting Pipe-in-Pipe Technology as per IS 3043-1987 made of Copper Pipes having Outer pipe dia of 50mm having , Inner pipe dia of 40 mm , connection terminal dia of 14 mm with constant ohmic value surrounded by highly conductive compound with high charge dissipation suitable for following type of applications. (a) For Electrical Installation up to 440V in normal soil Length of pipe - 1 Mtr Back filling compound - 1 Nos Bag of 15 Kg.	no	20	4,318.70	86,374.00		

Sr No.	Description	Unit	Quantity	Estimated		Quoted Value	
				Rate	Total	Discount Offered by Bidder	Evaluated Price in Rs. after Discount
5.2	(a) For Electrical Installation up to 440V in normal soil Length of pipe - 2 Mtr Back filling compound - 1 Nos Bag of 25 Kg.	no	195	5,417.85	10,56,480.75		
5.3	Pipe type earthing with 40 mm dia 2.5 mtr long 'B' grade G.I. pipe with necessary coupling buch buried in specially prepared earth pit & G.I. earth wire of 8 SWG erected & connected as directed (For panel)	Ea.	100	774.25	77,425.00		
5.4	Plate Type Earthing Supplying & erecting funnel type earthing having earth plate of following size burred in specifically prepared earth pit 3 mtr. below ground with 40 kg. charcoal and salt with alternate layers of charcoal & salt, 20mm.dia. G.I. pipe with Funnel with a wire mesh for watering & bricks masonry block, C.I. Cover complete as per para 7.3 of IS 3043 with necessary length of double Galvanised Iron / copper earth wire No 6 SWG bolted with lug to the plate and covered in 12 mm dia. G.I. pipe 2.5 mtr long complete connected to the nearest switch gear with end socket as per direction & duly tested by earth tester confirming to IS (As per drawing) with following specification With 45 x 45 x 0.35 cms. G.I. earth plate	Ea.	5	2,415.85	12,079.25		
	Total of 5.0				**12,32,359.00**		
6	**Miscellanious**						

Sr No.	Description	Unit	Quantity	Estimated		Quoted Value	
				Rate	Total	Discount Offered by Bidder	Evaluated Price in Rs. after Discount
6.1	Replacement of lightning arrestor as per actual site condition during entire contractor period as and when required	job	1	841.70	841.70		
6.2	Replacing of Head frame for 12 mtr. To 30 mtr. High mast Ligting System	job	1	10,523.15	10,523.15		
6.3	Replacing of Wire rope for 12 Mtr. To 30 Mtr. High Mast Ligting System.	job	1	12,627.40	12,627.40		
6.4	Replacement of Traveling cable for 12Mt. to 30 Mt. High Mast Lighting System.	job	1	10,523.15	10,523.15		
6.5	Replacement of Double winch drum for 12 Mtr. To 30 Mtr. High Mast Lighting System	job	1	31,568.50	31,568.50		
6.6	Rewinding of electrical motor for 12 Mtr. To 30 Mtr. High Mast Lighting System.	job	1	4,735.75	4,735.75		
6.7	Replacement of electrical motor for 12 Mtr. To 30 Mtr. High Mast Lighting System.	job	1	10,523.15	10,523.15		
6.8	Dismantling of 12Mt. to 30 Mt. High Mast Lighting System & Carting to AMC store	job	1	10,523.15	10,523.15		
6.9	Installation of 12 Mtr. To 30 Mtr. High Mast Lighting System. With loading / Unloading	job	1	15,784.25	15,784.25		
6.1	Replacement of Lent ran carriage for 12 Mtr. To 30 Mtr. High Mast Lighting System	job	1	11,574.80	11,574.80		
6.11	To carry out census of existing street light poles, Post top pole and feeder pillar (The same to be incorporated in CMS App.) in entire city with help of mobile app of any king of latest equipment (Geo-coordinate mapping) depicting longitude and latitude and code of each street light poles as per the formate indicated in the tender (To be complete within 3 months)	lot	1	4,75,000.00	4,75,000.00		

Sr No.	Description	Unit	Quantity	Estimated		Quoted Value	
				Rate	Total	Discount Offered by Bidder	Evaluated Price in Rs. after Discount
	Total of 6.0				**5,94,225.00**		
7	**Civil Work**						
7.1	Reinstate of paver block with back filling. Waterring,PCC and fixing blocks in proper manner.	Sq.Mtr.	1	81.70	81.70		
7.2	SITC of Cement 1:5:10 (1 Cement: 5 Coarse sand: 10 hard broken stone aggregates 40 mm nominal size) and curing complete excluding cost of form work in (A) Foundation and Plinth	Cu.Mtr.	1	2,155.55	2,155.55		
7.3	Providing and Laying of Rubber Moulded Paver Block Grey/Coloured 60 mm thick, M-35 Grade of any size ; shape (Usually Uni-Paver Blocks) using black trap good quality aggragate of 20 mm nominal size for footpath, parking areas, service lanes and other areas as mentioned in the drawing / instruction of engineer in charge. Cost includes formworks using rubber mould, Rate providing and laying paver blocks as per required grading and specification. The paver block shall be echanically compacted. The work of paving blocks shall be executed in line and level by skill mason of flooring work only. It should be laid in such a way that the no cutting of the paver block to be necessary. if cutting of paver block necessary then it should be cut by machine only and carting. The finished surface of the paver block shall have resonably good, plain finished. Paver blocks shall be compacted and shall be relaid if necessary. Gravel or such type of	Sq.Mtr.	315	451.25	1,42,143.75		

Sr No.	Description	Unit	Quantity	Estimated		Quoted Value	
				Rate	Total	Discount Offered by Bidder	Evaluated Price in Rs. after Discount
	materials shall not be allowed for production. Laying on 5 cms thick sand						
	Total of 7.0				**1,44,381.00**		
	Total				**13,06,48,343.40**		

Sr No.	Description	Unit	Quantity	Estimated		Quoted Value	
				Rate	Total	Discount Offered by Bidder	Evaluated Price in Rs. after Discount
1	**Section Feeder Panels Type-A**						
	Supplying, unloading at site, shifting to site, assembling, leveling, grouting, erecting, Testing, & Commissioning double compartmentalized Street light control panel with IP 65 protection & Enclosure should be powder coated fabricated from 10 Gauge M.S. sheet & folded channel totally enclosed cubical type. with pad lock arrangement. The successful tenderer will have to prepare general arrangement with dimensions & get it approve through Architect/ Consultant. All civil work including RCC platform for street light panel should be in scope of Electrical contractor complete in all respect as per detail drawing and directed by engineer in charge. with the 600 mm height MS angle covered stand. The switchboard (panel) shall have provision for future expansion & shall be modular in construction. The bus bars shall be connected with C type clamps without any drilling on the bus bars. SITC of the IP 65 Smart Section feeder panel with space for Smart Energy monitoring system and 2 number of 3 phase Energy meter of Supply Company for the Street Lighting Consisting of following Incoming : 100 Amp FP MCCB with the spreader link with in built earth fault relay R-Y-B-On-Off indicating Lamp with control fuse. Busbar : Set of 100 A. FP tinned copper busbars of EC. grade &	no	60	95,000.00	57,00,000.00	**Not to be filled by the Bidder.** **(Total Percentage of discount automatically derived based on column E from the Price Bid table)**	**Not to be filled by the Bidder.** **(Total cost shall be automatically calculated based on the discount offered by bidder from the Price bid table)**

	adequate capacity, size & insulated with colour tape & should be tined at all joints. Auto/Manual bypass switch with indicating lamp Meter : VAF meter equivalent to Enercon make ELF 3259 with 100/ 5 A Class 1 ct. Outgoing : MCB's Should be of 10 KA. Timer Equivalent to Theben make Astronomical type with the battery back up : 2 nos. 40 amp. FP Power Contactor : 2 nos. 6 - 32 amp. DP Power Contactor : 8 nos. 40 Amp. FP MCB : 4 nos. 6 -32 Amp. FP MCB : 2 nos. 6 - 32 amp. SP MCB : 18 nos. 5 KVAR Capacitor with the 40 amp TP capacitor duty contactor with the 10 minute time delay relay. Panel Should Have lockable Space to incorporate the 2 nos of the 3 phase energy meter with its main switches with separate cable entry with separate compartment & Separate door.						
2	**Section Feeder Panels Type-B**						
	Supplying, unloading at site, shifting to site, assembling, leveling, grouting, erecting, Testing, & Commissioning double compartmentalized Street light control panel with IP 65 protection & Enclosure should be powder coated fabricated from 10 Gauge M.S. sheet & folded channel totally enclosed cubical type. with pad lock arrangement. The successful tenderer will have to prepare general arrangement with dimensions & get it approve through Architect/ Consultant. All civil work including RCC platform for street light panel should be in scope of Electrical contractor complete in all respect as per detail drawing and directed by engineer in charge. with the 600	no	60	80,750.00	48,45,000.00		

	mm height MS angle covered stand. The switchboard (panel) shall have provision for future expansion & shall be modular in construction. The bus bars shall be connected with C type clamps without any drilling on the bus bars. SITC of the IP 65 Smart Section feeder panel with space for Smart Energy monitoring system and 2 number of 3 phase Energy meter of Supply Company for the Street Lighting Consisting of following Incoming : 63 Amp FP MCB with the spreader link with in built earth fault relay R-Y-B-On-Off indicating Lamp with control fuse. Busbar : Set of 63 A. FP tinned copper busbars of EC. grade & adequate capacity, size & insulated with colour tape & should be tined at all joints. Auto/Manual bypass switch with indicating lamp Meter : VAF meter equivalent to Enercon make ELF 3259 with 63/ 5 A Class 1 ct. Outgoing : MCB's Should be of 10 KA. Timer Equivalent to Theben make Astronomical type with the battery back up : 2 nos. 40 amp. FP Power Contactor : 2 nos. 6 - 32 amp. DP Power Contactor : 8 nos. 40 Amp. FP MCB : 2 nos. 6 -32 Amp. FP MCB : 2 nos. 6 - 32 amp. SP MCB : 12 nos. 5 KVAR Capacitor with the 40 amp TP capacitor duty contactor with the 10 minute time delay relay.						

	Panel Should Have lockable Space to incorporate the 2 nos of the 3 phase energy meter with its main switches with separate cable entry with separate compartment & Separate door.						
3	**Removing of Section Feeder Panel** Dismantling and removing of existing section feeder pillar as said location by engineer in charge complete in all respect as it is original with necessary civil work foundation, cable termination, with extra required various sizes cables & with cable joints if needed etc. as per requirement or as per instruction of engineer in charge.	Set	10	914.85	9,148.50		
4	**Installation of Section Feeder Panel** Installation Testing and Comissioning of New / existing section feeder pillar as said location by engineer in charge complete in all respect as it is original with necessary cable termination, with extra required various sizes cables & with cable joints if needed etc. as per requirement or as per instruction of engineer in charge.	Set	10	4,391.85	43,918.50		
5	**Upgradation of Section Feeder Panel** Upgradation of existing section feeder pillar Install MCB instead of Fuse as said location by engineer in charge complete in all respect as it is original with necessary cable termination etc. as per requirement or as per instruction of engineer in charge.	Set	10	2,850.00	28,500.00		
					1,06,26,567.00		
6	**MCB** SITC of the MCB's (10 KA) Timers , & Contactors With the Dinrail Channel providing and erecting Miniature circuit breaker single pole 0.5A to 2A system and having	no	10,000.00	254.60	25,46,000.00		

	breaking capacity 10 KA to be erected in existing box. confirming to IS 8828/1996 with ISI Mark						
7	Miniature circuit breaker single pole suitable to operate on 240 V A.C. system and having breaking capacity 10 KA to be erected in existing box. confirming to IS 8828/1996 with ISI Mark 6 to 25 A SP MCB	no	90	105.45	9,490.50		
8	Providing & erecting 240 V MCB double pole switch for motor & inductive load (C Curve) having 10 KA breaking capacity & confirms to IS : 8828 in existing box having following capacity 6 to 32 A DP MCB	no	5	282.15	1,410.75		
9	Approved make ELCBs / RCCBs conforming to IS: 12640 and having sensitivity of 30 mA and Short Circuit withstand capacity of 6 KA and suitable for operation on single phase 240 V. having characteristic of quick action & tripping with all advance feature & do not incorporate any electronic component. for following Max. rating erected as directed 25 to 32A / 30mA/100 mA DP ELMCB	no	5	1,852.50	9,262.50		
10	Approved make ELCBs / RCCBs conforming to IS: 12640 and having sensitivity of 30 mA and Short Circuit withstand capacity of 6 KA and suitable for operation on single phase 240 V. having characteristic of quick action & tripping with all advance feature & do not incorporate any electronic component. for following Max. rating erected as directed 40 A / 100 mA DP ELMCB	no	5	2,102.35	10,511.75		
11	Providing & erecting 415 V MCB three Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity (a) 6 to 32 Amp. Cat.III	no	5	528.20	2,641.00		
12	Providing & erecting 415 V MCB three Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity (b) 40 Amp. Cat.III	no	5	608.95	3,044.75		
13	Providing & erecting 415 V MCB Four Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity	no	5	693.50	3,467.50		

	& confirms to IS :8828 in existing box having following capacity 63A FP MCB						
14	Providing & erecting 415 V MCB Four Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity 40A FP MCB	no	5	628.90	3,144.50		
15	Providing & erecting 415 V MCB Four Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity 6 to 32A FP MCB	no	6	560.50	3,363.00		
16	Supplying & erecting power contactor for time switch complete erected as per direction Cat III [B] 2 pole 250V 32 Amp.	no	5	1,771.75	8,858.75		
17	Supplying & erecting power contactor for time switch complete erected as per direction Cat III [D] 4 pole 440V 40 Amp.	no	5	2,617.25	13,086.25		
18	Supplying & erecting approved make Digital time switch having lithium cell 6 years operative and operate battery backup 1 channel day clock with 14 memory programme, suitable to operate on 240V + 5%, 16A with, floating contacts Minimum switching setup time 1 minimum & LCD display. Also comprised permanent ON/OFF switching. Programming switches & housed in fire proof thermoplastic enclosure & transparent cover erected as required with necessary connection erected as directed.	no	5	2,980.15	14,900.75		
19	To Supply & Install Takti (Size 12" X 8 " in 16 gauge M.S. Plate) on street light pole with painting in the prescribed matter as directed by the engineer in charge and take two photograph of the same takti.	no	151	402.80	60,822.80		
					26,90,004.80		
	Cable Trenches, Manholes & Pipes						
20	Making trench in soft soil of suitable width of 90 cms deep from the final ground level or road level for laying cable or locating the fault all over the run and backfilling the	mt	50,001.00	43.70	21,85,043.70		

	same & clearing the site by removing debris & Shifting of the debris & making site good As per the Instruction of the Engineer Incharge.						
21	Making trench in Hard murum / Tar Road of suitable width of 90 cms deep from the final ground level / road level for laying cableor locating the fault all over the run and backfilling the same and making the surface proper. by removing debris & Shifting of the debris & making site good As per the Instruction of the Engineer Incharge.	mt	50,000.00	58.90	29,45,000.00		
22	(B) If additional machinery like hammer driller or JCB use [Add]	mt	3,000.00	280.25	8,40,750.00		
23	Covering of cable with second class bricks laid cover the cable crosswise & also on both sides with covering of 7. 5 Cms. layer of sand above & below cable (cable shall be laid in 0.9mtr.deep & 0.4 Mtr.wide trench). Where there are more than one cable in the trench on either side of the cable, 5 Cms. over lapping of bricks shall be provided.	mt	3,527.00	126.35	4,45,636.45		
24	Driling the road without breaking the road surface (Asphalt) for laying of cable for feeding power supply by making Suitable size of holes at both ends complete. (A) Up to 100 mm bore dia	mt	3,502.00	386.65	13,54,048.30		
25	Driling the road without breaking the road surface (Asphalt) for laying of cable for feeding power supply by making Suitable size of holes at both ends complete. (B) Up to 150 mm bore dia	mt	500	483.55	2,41,775.00		
26	Construction of brick masonery pulling chamber 1250 mm x 1250 mm inside clear size and depth upto 1.2 meter with 350 mm thick masonery in cerment mortar proporation 1:5,cement finish cement plaster in CM proportion of 15 mm thickness from inside with 150 mm thick PCC at bottom with top slab minmum 200 mm thickness in M20 grade with reinforcement. The rate shall be inclusive of providing and fixing frame and cover of FRC for the Heavy Duty. Rate also inclusive of excavation	no	300	16,823.55	50,47,065.00		

	and back filling & clearing the site by removing debris & Shifting of the debris & making site good As per the Instruction of the Engineer Incharge complete in all respect.						
					1,30,59,318.45		
27	Providing & laying. Double walled corrugated pipes (DWC) of polyethylene(conforming to IS 14930 II) Anti Rodent type with necessary connecting accessories of same material at required depth for laying of cable. below ground / road surface for enclosing cable with Excavation and backfilling the same to make ground as per original. (A)50 mm dia	mt	1,50,000.00	58.90	88,35,000.00		
28	Providing & laying. Double walled corrugated pipes (DWC) of polyethylene(conforming to IS 14930 II) Anti Rodent type with necessary connecting accessories of same material at required depth for laying of cable. below ground / road surface for enclosing cable with Excavation and backfilling the same to make ground as per original. (B)90 mm dia	mt	35,000.00	90.25	31,58,750.00		
29	Providing & laying. Double walled corrugated pipes (DWC) of polyethylene(conforming to IS 14930 II) Anti Rodent type with necessary connecting accessories of same material at required depth for laying of cable. below ground / road surface for enclosing cable with Excavation and backfilling the same to make ground as per original. (C)120 mm dia.	mt	54,000.00	129.20	69,76,800.00		
30	Providing & laying approved make ISI marked HDPE 6Kg / cm2 (Class-3) as per IS:4984:1995 PE-80 to be erected at road crossing on or floor as directed for laying of cable. The pipes as following size of dia & weight per 6 mtr. (E) 90 mm inner Dia	mt	17,500.00	462.65	80,96,375.00		
31	Providing & laying approved make ISI marked HDPE 6Kg / cm2 (Class-3) as per IS:4984:1995 PE-80 to be erected at road crossing on or floor as directed for laying	mt	17,500.00	688.75	1,20,53,125.00		

	of cable. The pipes as following size of dia & weight per 6 mtr. (F) 110 mm inner Dia.						
					3,91,20,050.00		
	Cables Supply of XLPE(IS:7098))(I)-88 ISI marked armored cable of Cu. / Aluminum conductor of 1.1 KV.grade of following sizes in ground or in pre-laid DWC pipe / Trenches with necessary cable identification mark to be provided at distance of 15 mt. & with 2 nos. of 16 SWG G.I. wire continuous in length per cable.						
32	50 sq.mm x 3.5 c Al. cable	mt	1,100.00	248.90	2,73,790.00		
33	35 sq.mm x 3.5 c Al. cable	mt	25,000.00	188.10	47,02,500.00		
34	25 sq.mm x 4 c Al. cable	mt	75,000.00	166.25	1,24,68,750.00		
35	16 sq.mm x 4 c Al. cable	mt	1,25,000.00	131.10	1,63,87,500.00		
36	10 sq.mm x 4 c Al. cable	mt	1,00,000.00	118.75	1,18,75,000.00		
37	Supplying and laying Flexible PVC insulated multistrand multicore 1.1 kv grade ISI marked copper wires of following size.						
37.1	1.00 Sq.mm 3 core round PVC sheathed **Scope also include the removal of existing wire if required**	mt	5,000.00	36.10	1,80,500.00		
37.2	1.50 Sq.mm 3 core round PVC sheathed **Scope also include the removal of existing wire if required**	mt	1,15,000.00	41.80	48,07,000.00		
38	SITC of cable with 5 core x 2.5 Sq. mm EPR insulated PVC scheated Copper Cable with required length from bottom Junction Box to top junction box of Highmast, with needed all electrical mechanical accessories and tools to Commission the Highmastt poles as per tender terms, conditions & Specifications.The scope also includes the deposition of the existing removed cables and related accessories at the location as directed by Engineer Incharge **Scope also include the removal of existing wire if required**	Mtr	500	209.00	1,04,500.00		

	Cable Termination Supplying & fixing Double Compression type Brass glands & making joint with necessary crimping socket of long nack type connecting the same to various equipment etc. for the following sizes:						
39	50 sq.mm x 3.5 c Al. cable	no	102	142.50	14,535.00		
40	35 sq.mm x 3.5 c Al. cable	no	4,001.00	142.50	5,70,142.50		
41	25 sq.mm x 4 c Al. cable	no	4,000.00	105.45	4,21,800.00		
42	16 sq.mm x 4 c Al. cable	no	8,000.00	101.65	8,13,200.00		
43	10 sq.mm x 4 c Al. cable	no	2,000.00	85.50	1,71,000.00		
					5,27,90,217.50		
	Street light Poles & High Mast						
44	Supply of approved make FRP Pole having following specifications: FRP Light Pole made by CNC filament winding machine using thermoset resin polyester/epoxy resin system) having minimum 62% glass content. The pole should be in one piece and tapered round in shape, having smooth finish and should be totally free from corrosion as well as non conductive & shock proof Pole should be provided with FRP Anchor Base and it should be heavy duty, or MS Material duly painted with Epoxy paint. Pole should be flame retardant as per IS 6746. Resin used shall be UV resistance and pigmented. A highly weather resistant polyurethane coating shall be applied to the pole after applying suitable primer system that ensures proper adhesion of the paint. Minimum coating thickness shall be 80 to 100 micron. Deflection of the pole shall not exceed more than 10% of the length of pole for the given load" Pole should be generally made as per the dimensional data, performance criteria and some interchangeability features of poles as per standard ANSI C 136.20 latest version or ASTM D 4923/01 including cable termination box with necessary accessories . The size of pole and type	no	25	8,487.30	2,12,182.50		

	of installation with foundation as per manufacturer details and site requirement are as below . (1) Suitable for base plate mounting single arm Bracket. [C] Overall length of 3.5 Mtr. Average Thickness: 7mm. Top/ Bottom OD Dia A/F 89/135 mm ± 2mm approx. Approx. Weight of Pole 15kg. approx. (Without Base) Anchor Base (Size 250X250 & 12mm th.)						
45	Supply of approved make FRP Pole having following specifications: FRP Light Pole made by CNC filament winding machine using thermoset resin polyester/epoxy resin system) having minimum 62% glass content. The pole should be in one piece and tapered round in shape, having smooth finish and should be totally free from corrosion as well as non conductive & shock proof Pole should be provided with FRP Anchor Base and it should be heavy duty, or MS Material duly painted with Epoxy paint. Pole should be flame retardant as per IS 6746. Resin used shall be UV resistance and pigmented. A highly weather resistant polyurethane coating shall be applied to the pole after applying suitable primer system that ensures proper adhesion of the paint. Minimum coating thickness shall be 80 to 100 micron. Deflection of the pole shall not exceed more than 10% of the length of pole for the given load" Pole should be generally made as per the dimensional data, performance criteria and some interchangeability features of poles as per standard ANSI C 136.20 latest version or ASTM D 4923/01 including cable termination box with necessary accessories . The size of pole and type of installation with foundation as per manufacturer details and site requirement are as below . (1) Suitable for base plate mounting single arm Bracket. [D] Overall length of 4 Mtr. Average Thickness: 7mm. Top/ Bottom OD Dia A/F 89/145 mm ± 2mm approx.	no	25	9,211.20	2,30,280.00		

	Approx. Weight of Pole 19 kg approx. (Without Base) Anchor Base (Size 250X250 & 12mm th.)						
46	Supply of approved make FRP Pole having following specifications: FRP Light Pole made by CNC filament winding machine using thermoset resin polyester/epoxy resin system) having minimum 62% glass content. The pole should be in one piece and tapered round in shape, having smooth finish and should be totally free from corrosion as well as non conductive & shock proof Pole should be provided with FRP Anchor Base and it should be heavy duty, or MS Material duly painted with Epoxy paint. Pole should be flame retardant as per IS 6746. Resin used shall be UV resistance and pigmented. A highly weather resistant polyurethane coating shall be applied to the pole after applying suitable primer system that ensures proper adhesion of the paint. Minimum coating thickness shall be 80 to 100 micron. Deflection of the pole shall not exceed more than 10% of the length of pole for the given load" Pole should be generally made as per the dimensional data, performance criteria and some interchangeability features of poles as per standard ANSI C 136.20 latest version or ASTM D 4923/01 including cable termination box with necessary accessories . The size of pole and type of installation with foundation as per manufacturer details and site requirement are as below . (1) Suitable for base plate mounting single arm Bracket. [H] Overall length of 6 Mtr. Average Thickness: 7.5mm Top/ Bottom OD Dia A/F 89mm ± 2mm approx. approx. Weight of Pole 32 kg approx. (Without Base) Anchor Base (Size 300X300 & 18mm Th.)	no	25	13,224.00	3,30,600.00		
47	Supply & Installation of GI Pole made out of B CLASS ERW G.I. PIPE for road having Height - 4 metre having thickness of 4.5 mm, 165 mm outer uniform dia., with	no	500	12,580.85	62,90,425.00		

	base plate of 450 x 450 x 12 mm with stiffener plate with Seprate integral type junction box (For Street light) , with j bolt, necessary hardware as per detail, with necessary Reducer / Coupler / for fixing of light fixtures & Hinged access door with welded chain between pole and hinged door with Allen key require to access the integral junction box, Fabrication work complete in all respect as per given detail with one coat of zinc oxide complete in all respect as per Drawing. Rate shall be including two coats of PU paint of shade as per drawing or as directed by Architect (effective length should be 4000mm above GF) (Sample to be approved)						
48	Supply & Installation of GI Pole made out of B CLASS ERW G.I. PIPE for road having Height - 6 metre having thickness of 4.5 mm, 165 mm outer uniform dia., with base plate of 450 x 450 x 12 mm with stiffener plate with Seprate integral type junction box (For Street light) , with j bolt, necessary hardware as per detail, with necessary Reducer / Coupler / for fixing of light fixtures & Hinged access door with welded chain between pole and hinged door with Allen key require to access the integral junction box, Fabrication work complete in all respect as per given detail with one coat of zinc oxide complete in all respect as per Drawing. Rate shall be including two coats of PU paint of shade as per drawing or as directed by Architect (effective length should be 6000mm above GF) (Sample to be approved)	no	15	18,867.00	2,83,005.00		
49	Supply & Installation of GI Pole made out of B CLASS ERW G.I. PIPE for road having Height - 7 metre having thickness of 4.5 mm, 165 mm outer uniform dia., with base plate of 450 x 450 x 12 mm with stiffener plate with Seprate integral type junction box (For Street light) , with j bolt, necessary hardware as per detail, with necessary Reducer / Coupler / for fixing of light fixtures	no	15	22,011.50	3,30,172.50		

	& Hinged access door with welded chain between pole and hinged door with Allen key require to access the integral junction box, Fabrication work complete in all respect as per given detail with one coat of zinc oxide complete in all respect as per Drawing. Rate shall be including two coats of PU paint of shade as per drawing or as directed by Architect (effective length should be 7000mm above GF) (Sample to be approved)						
50	Supply & Installation of GI Pole made out of B CLASS ERW G.I. PIPE for road having Height - 8 metre having thickness of 4.5 mm, 165 mm outer uniform dia., with base plate of 450 x 450 x 16 mm with stiffener plate with Seprate integral type junction box (For Street light) , with j bolt, necessary hardware as per detail, with necessary Reducer / Coupler / for fixing of light fixtures & Hinged access door with welded chain between pole and hinged door with Allen key require to access the integral junction box, Fabrication work complete in all respect as per given detail with one coat of zinc oxide complete in all respect as per Drawing. Rate shall be including two coats of PU paint of shade as per drawing or as directed by Architect (effective length should be 8000mm above GF) (Sample to be approved)	no	15	25,156.00	3,77,340.00		
51	Supply & Installation of GI Pole made out of B CLASS ERW G.I. PIPE for road having Height - 9 metre having thickness of 4.5 mm, 165 mm outer uniform dia., with base plate of 450 x 450 x 16 mm with stiffener plate with Seprate integral type junction box (For Street light) , with j bolt, necessary hardware as per detail, with necessary Reducer / Coupler / for fixing of light fixtures & Hinged access door with welded chain between pole and hinged door with Allen key require to access the integral junction box, Fabrication work complete in all respect as per given detail with one coat of	no	15	28,300.50	4,24,507.50		

	zinc oxide complete in all respect as per Drawing. Rate shall be including two coats of PU paint of shade as per drawing or as directed by Architect (effective length should be 9000mm above GF) (Sample to be approved)						
52	Supply & Installation of GI Pole made out of B CLASS ERW G.I. PIPE for road having Height - 10 metre having thickness of 4.5 mm, 165 mm outer uniform dia., with base plate of 450 x 450 x 16 mm with stiffener plate with Seprate integral type junction box (For Street light) , with j bolt, necessary hardware as per detail, with necessary Reducer / Coupler / for fixing of light fixtures & Hinged access door with welded chain between pole and hinged door with Allen key require to access the integral junction box, Fabrication work complete in all respect as per given detail with one coat of zinc oxide complete in all respect as per Drawing. Rate shall be including two coats of PU paint of shade as per drawing or as directed by Architect (effective length should be 10000mm above GF) (Sample to be approved)	no	15	31,445.00	4,71,675.00		
53	Supply & Installation of GI Pole made out of B CLASS ERW G.I. PIPE for road having Height - 11 metre having thickness of 4.5 mm, 165 mm outer uniform dia., with base plate of 450 x 450 x 16 mm with stiffener plate with Seprate integral type junction box (For Street light) , with j bolt, necessary hardware as per detail, with necessary Reducer / Coupler / for fixing of light fixtures & Hinged access door with welded chain between pole and hinged door with Allen key require to access the integral junction box, Fabrication work complete in all respect as per given detail with one coat of zinc oxide complete in all respect as per Drawing. Rate shall be including two coats of PU paint of shade as per drawing or as directed by Architect (effective length should be 11000mm above GF) (Sample to be approved)	no	15	34,589.50	5,18,842.50		

54	Supplying and erecting approved make Octagonal pole made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, suitable suspend local wind speed with integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable termination to be erected With Suitable foundation (Included) as per details given by manufacturer considering site requirement. (A) 3 Mtr. Long 70 mm Top X 130 mm bottom dia (Tolerance are allowed in all octagonal pole top and bottom dia +/-10%) .3 mm thickness with 200mmX200mmX12mm base plate, 4-M16 Bolts and 450mm long with necessary G.I. J Bolts .Approx weight 29 kg	no	15	3,986.20	59,793.00		
55	Supplying and erecting approved make Octagonal pole made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, suitable suspend local wind speed with integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable termination to be erected With Suitable foundation (Included) as per details given by manufacturer considering site requirement. (B) 4 Mtr. Long 70 mm Top X 130 mm bottom dia (Tolerance are allowed in all octagonal pole top and bottom dia +/-10%), 3 mm thickness with 200mmX200mmX12mm base plate, 4-M16 Bolts and 450mm long with necessary G.I. J Bolts .Approx weight 37 kg	no	15	5,225.95	78,389.25		
56	Supplying and erecting approved make Octagonal pole made from HR sheet steel. The pole should be made as	no	15	6,465.70	96,985.50		

	per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, suitable suspend local wind speed with integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable termination to be erected With Suitable foundation (Included) as per details given by manufacturer considering site requirement. (C) 5 Mtr. Long 70 mm Top X 130 mm bottom dia (Tolerance are allowed in all octagonal pole top and bottom dia +/-10%), 3 mm thickness with 200mmX200mmX12mm base plate, 4-M16 Bolts and 600mm long with necessary G.I. J Bolts .Approx Pole weight 46 kg						
57	Supplying and erecting approved make Octagonal pole made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, suitable suspend local wind speed with integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable termination to be erected With Suitable foundation (Included) as per details given by manufacturer considering site requirement. (D) 6 Mtr. Long 70 mm Top X 135 mm bottom dia (Tolerance are allowed in all octagonal pole top and bottom dia +/-10%), 3 mm thickness with 200mmX200mmX12mm base plate, 4-M20 Bolts and 600mm long with necessary G.I. J Bolts .Approx Pole weight 59 kg	no	15	7,705.45	1,15,581.75		
58	Supplying and erecting approved make Octagonal pole made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, suitable suspend local wind speed	no	15	10,734.05	1,61,010.75		

	with integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable termination to be erected With Suitable foundation (Included) as per details given by manufacturer considering site requirement. (E) 7 Mtr. Long 70 mm Top X 135 mm bottom dia (Tolerance are allowed in all octagonal pole top and bottom dia +/-10%), 3 mm thickness with 225mmX225mmX16mm base plate, 4-M20 Bolts and 600mm long with necessary G.I. J Bolts .Approx Pole weight 67 kg						
59	Supplying and erecting approved make Octagonal pole made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, suitable suspend local wind speed with integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable termination to be erected With Suitable foundation (Included) as per details given by manufacturer considering site requirement. (G) 8 Mtr. Long 70 mm Top X 155 mm bottom dia (Tolerance are allowed in all octagonal pole top and bottom dia +/-10%), 3 mm thickness with 260mmX260mmX16mm base plate, 4-M20 Bolts and 600mm long with necessary G.I. J Bolts Approx Pole weight 84 kg	no	15	13,178.40	1,97,676.00		
60	Supplying and erecting approved make Octagonal pole made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, suitable suspend local wind speed with integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-	no	15	14,772.50	2,21,587.50		

	Rail for MCB Mounting, stud type terminal and arrangement for cable termination to be erected With Suitable foundation (Included) as per details given by manufacturer considering site requirement. (H) 9 Mtr. Long 70 mm Top X 155 mm bottom dia (Tolerance are allowed in all octagonal pole top and bottom dia +/-10%), 3 mm thickness with 260mmX260mmX16mm base plate, 4-M24 Bolts and 750mm long with necessary G.I. J Bolts .Approx Pole weight 97 kg						
61	Supplying and erecting approved make Octagonal pole made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, suitable suspend local wind speed with integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable termination to be erected With Suitable foundation (Included) as per details given by manufacturer considering site requirement. (I) 10 Mtr. Long 70 mm Top X 175 mm bottom dia (Tolerance are allowed in all octagonal pole top and bottom dia +/-10%), 4 mm thickness with 275mmX275mmX16mm base plate, 4-M24 Bolts and 750mm long with necessary G.I. J Bolts .Approx Pole weight 145 kg	no	15	18,598.15	2,78,972.25		
62	Supplying and erecting approved make Octagonal pole made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, suitable suspend local wind speed with integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable termination to be erected With	no	15	24,018.85	3,60,282.75		

	Suitable foundation (Included) as per details given by manufacturer considering site requirement. (J) 11 Mtr. Long 90 mm Top X 210 mm bottom dia (Tolerance are allowed in all octagonal pole top and bottom dia +/-10%), 4 mm thickness with 300mmX300mmX20mm base plate, 4-M24 Bolts and 750mm long with necessary G.I. J Bolts .Approx Pole weight 192 kg						
63	Supplying and erecting approved make Conical Pole (Medium Duty) Made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, with required base plate and integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable terminations as erected on suitable foundation (included) with necessary GI nut-bolts/J-Bolts. as per details given by manufacturer considering site requirement. The length of poles are as below. (A) 3 Mtr. Long 70 mm Top X 115 mm bottom dia (Tolerance are allowed in all conical pole top and bottom dia +/-10%),3 mm thickness.	no	15	4,827.90	72,418.50		
64	Supplying and erecting approved make Conical Pole (Medium Duty) Made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, with required base plate and integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable terminations as erected on suitable foundation (included) with necessary GI nut-bolts/J-Bolts. as per details given by manufacturer considering site requirement. The length of poles are as below. (B) 4 Mtr. Long 70 mm Top X 130 mm bottom dia	no	15	6,112.30	91,684.50		

	(Tolerance are allowed in all conical pole top and bottom dia +/-10%), 3 mm thickness						
65	Supplying and erecting approved make Conical Pole (Medium Duty) Made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, with required base plate and integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable terminations as erected on suitable foundation (included) with necessary GI nut-bolts/J-Bolts. as per details given by manufacturer considering site requirement. The length of poles are as below. (C) 5 Mtr. Long 70 mm Top X 145 mm bottom dia (Tolerance are allowed in all conical pole top and bottom dia +/-10%), 3 mm thickness.	no	15	7,661.75	1,14,926.25		
66	Supplying and erecting approved make Conical Pole (Medium Duty) Made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, with required base plate and integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable terminations as erected on suitable foundation (included) with necessary GI nut-bolts/J-Bolts. as per details given by manufacturer considering site requirement. The length of poles are as below. (D) 6 Mtr. Long 70 mm Top X 160 mm bottom dia (Tolerance are allowed in all conical pole top and bottom dia +/-10%), 3 mm thickness	no	15	9,565.55	1,43,483.25		
67	Supplying and erecting approved make Conical Pole (Medium Duty) Made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, with required base	no	3,000.00	11,513.05	3,45,39,150.00		

	plate and integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable terminations as erected on suitable foundation (included) with necessary GI nut-bolts/J-Bolts. as per details given by manufacturer considering site requirement. The length of poles are as below. (E) 7 Mtr. Long 70 mm Top X 175 mm bottom dia (Tolerance are allowed in all conical pole top and bottom dia +/-10%), 3 mm thickness						
68	Supplying and erecting approved make Conical Pole (Medium Duty) Made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, with required base plate and integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable terminations as erected on suitable foundation (included) with necessary GI nut-bolts/J-Bolts. as per details given by manufacturer considering site requirement. The length of poles are as below. (F) 8 Mtr. Long 70 mm Top X 190 mm bottom dia (Tolerance are allowed in all conical pole top and bottom dia +/-10%), 3 mm thickness	no	15	13,815.85	2,07,237.75		
69	Supplying and erecting approved make Conical Pole (Medium Duty) Made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, with required base plate and integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable terminations as erected on suitable foundation (included) with necessary GI nut-bolts/J-Bolts. as per details given by manufacturer considering	no	6,250.00	15,675.95	9,79,74,687.50		

	site requirement. The length of poles are as below. (G) 9 Mtr. Long 70 mm Top X 205 mm bottom dia (Tolerance are allowed in all conical pole top and bottom dia +/-10%), 3 mm thickness						
70	Supplying and erecting approved make Conical Pole (Medium Duty) Made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, with required base plate and integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable terminations as erected on suitable foundation (included) with necessary GI nut-bolts/J-Bolts. as per details given by manufacturer considering site requirement. The length of poles are as below. (H) 10 Mtr. Long 80 mm Top X 220 mm bottom dia (Tolerance are allowed in all conical pole top and bottom dia +/-10%), 3 mm thickness	no	20	18,421.45	3,68,429.00		
71	Supplying and erecting approved make Conical Pole (Medium Duty) Made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, with required base plate and integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable terminations as erected on suitable foundation (included) with necessary GI nut-bolts/J-Bolts. as per details given by manufacturer considering site requirement. The length of poles are as below. (I) 11 Mtr. Long 80 mm Top X 245 mm bottom dia (Tolerance are allowed in all conical pole top and bottom dia +/-10%), 3 mm thickness	no	20	22,052.35	4,41,047.00		
72	Supplying & erecting Steel tubular pole (Swaged) confirming to IS - 2713 (Part- II) 1980. Manufacturing	no	20	3,964.35	79,287.00		

	process of steel tubular pole should be as per IS specification. Basic steel tube should be ISI Marked. Pole should be painted by one coat of Zinc comet Primer and two coat of Aluminium /approved paint to be erected on / in existing Foundation. The length of poles are as below. (A) 4.5 mtr. Long Swaged Steel tubular pole (i) pole as per IS code 410-SP-4 with 300 X 300 X 6 mm base plate with necessary G.I. J Bolts For burial erection (iii) Add Extra for PU base primer and PU Paint on pole.						
73	Supplying & erecting Steel tubular pole (Swaged) confirming to IS - 2713 (Part- II) 1980. Manufacturing process of steel tubular pole should be as per IS specification. Basic steel tube should be ISI Marked. Pole should be painted by one coat of Zinc comet Primer and two coat of Aluminium /approved paint to be erected on / in existing Foundation. The length of poles are as below. (A) 5.5 mtr. Long Swaged Steel tubular pole (i) pole as per IS code 410-SP-4 with 300 X 300 X 6 mm base plate with necessary G.I. J Bolts For burial erection (iii) Add Extra for PU base primer and PU Paint on pole.	no	20	4,498.25	89,965.00		
74	Supplying & erecting Steel tubular pole (Swaged) confirming to IS - 2713 (Part- II) 1980. Manufacturing process of steel tubular pole should be as per IS specification. Basic steel tube should be ISI Marked. Pole should be painted by one coat of Zinc comet Primer and two coat of Aluminium /approved paint to be erected on / in existing Foundation. The length of poles are as below. (A) 7.0 mtr. Long Swaged Steel tubular pole (i) pole as per IS code 410-SP-4 with 300 X 300 X 4 mm base plate with necessary G.I. J Bolts (Approximate Pole weight 67 Kg) For burial erection (iii) Add Extra for PU base primer and PU Paint on pole.	no	20	7,255.15	1,45,103.00		
75	Supplying & erecting Steel tubular pole (Swaged) confirming to IS - 2713 (Part- II) 1980. Manufacturing	no	20	12,596.05	2,51,921.00		

	process of steel tubular pole should be as per IS specification. Basic steel tube should be ISI Marked. Pole should be painted by one coat of Zinc comet Primer and two coat of Aluminium /approved paint to be erected on / in existing Foundation. The length of poles are as below. (C) 9.5 mtr. Long Swaged Steel tubular pole (i) Pole as per IS code 410-SP-40 with 300 X 300 X 4 mm base plate with necessary G.I. J Bolts (Approximate weight 120 Kg) For burial erection (iii) Add Extra for PU base primer and PU Paint on pole.						
76	Supply of 9M Conical Bended Hot Dip Galvanized with PU Painted with Top dia 75mm and Bottom Dia 170mm with pole thickness 3mm along with Base plate 275mmx275mmx16mm with Single Arm Bracket of 300mm with provision for 4 nos of foundation bolts. The steel used for the manufacture of Pole shall comply with BSEN 10025 with yield strength of 355 MP for Conical Pole shaft or equivalent and the material for the base plate, bracket, flange plates, shall be equivalent to or better than IS 2062. Hot Dip Galvanizing shall be in accordance with IS 2629 or latest IS specification. The poles should be Hot Dip Galvanized to give average thickness of galvanization as per IS 4759/ BSEN 1461 standards – 65 microns.Test report to be submitted by manufacturer. All components of the pole and brackets shall be hot dip galvanized after completion of fabrication.No further touching up finalizing or modification shall be done after galvanizing. The overall length of each section bracket is immersed in one dipping operation to ensure smooth and aesthetic finish. No repetition allowed. They shall be designed and fabricated from such material and provided with such finish so as to withstand atmospheric conditions.The poles are to be designed for maximum wind speed of 47 m/s (169 km	no	20	41,515.00	8,30,300.00		

	/hr.) (IS 875 Part-III). The pole shall be evenly tapered from base to top. The pole shall preferably be fabricated in section. There shall be no circumferential welded joint in Poles. All welds shall ensure no fissures inside or outside or outsides surfaces, and no blowholes. Within the pole there must be Din rail Mounting provision for MCB & Electrical Connector. Pole must be with 300m single bracket arm as per shown in drawing. The pole manufacture must have ISO 9001/14001/45001 and CE certification and the same shall be attached alongwith tender submission. Kesslec CONICAL BENDED POLE 9M / Reytek / Neri Make						
77	Supply of 4M Conical Bended Hot Dip Galvanized with PU Painted with Top dia 70mm and Bottom Dia 118mm with pole thickness 3mm along with Base plate 200mmx200mmx12mm with Single Arm Bracket of 300mm with provision for 4 nos of foundation nut & bolt. The steel used for the manufacture of Pole shall comply with BSEN 10025 with yield strength of 355 MP for Conical Pole shaft or equivalent and the material for the base plate, bracket, flange plates, shall be equivalent to or better than IS 2062. Hot Dip Galvanizing shall be in accordance with IS 2629 or latest IS specification. The poles should be Hot Dip Galvanized to give average thickness of galvanization as per IS 4759/ BSEN 1461 standards – 65 microns.Test report to be submitted by manufacturer. All components of the pole and brackets shall be hot dip galvanized after completion of fabrication.No further touching up finalizing or modification shall be done after galvanizing. The overall length of each section bracket is immersed in one dipping operation to ensure smooth and aesthetic finish. No repetition allowed. They shall be designed and fabricated from such material and provided with such finish so as to	no	20	19,118.75	3,82,375.00		

	withstand atmospheric conditions.The poles are to be designed for maximum wind speed of 47 m/s (169 km /hr.) (IS 875 Part-III). The pole shall be evenly tapered from base to top. The pole shall preferably be fabricated in section. There shall be no circumferential welded joint in Poles. All welds shall ensure no fissures inside or outside or outsides surfaces, and no blowholes. Within the pole there must be Din rail Mounting provision for MCB & Electrical Connector. Pole must be with 300m single bracket arm as per shown in drawing. The pole manufacture must have ISO 9001/14001/45001 and CE certification and the same shall be attached alongwith tender submission. Kesslec CONICAL BENDED POLE 4M / Reytek / Neri Make						
78	Supply of Decorative Pole of 4.2 M column structure with an aesthetic curved designed single arm decorative bracket. The Pole Shaft should be fabricated out of Steel tube of grade YST 240. Structurally designed base plate of Steel Steel of grade E250 Conforming to IS 226/ IS 2062 should be welded with the pole shaft. The structure should be completely hot-dip galvanized and surface finished with PU paint. The pole should be of large section at the base with height of 2.7M made up of Tapered fabricated sheet as per IS 1079, welded with pipe dia of 140mm through which one single ended branch coming out with dia. 60mm. The base plate shall be of 370mmx370mmx16mm suitable for mounting on 4 nos foundation bolts. The pole shall be made of Mild Steel with Hot Dip Galvanizing coating including base plate as per ASTM A123. The pole shall be of 'composite' construction designed to withstand specified 'dead load' pertaining to the luminaire and its mounting accessories and 'wind load' corresponding to a basic wind speed of 169 kmph without any deformation or damage to the	no	20	43,153.75	8,63,075.00		

	structure. The welding shall be of high quality, carried out by qualified welders using approved welding procedures and tested for its quality through NDT method, such as DP Test. The pole shaft structure shall be hot dip galvanized through single dip process as per ASTM A123 and minimum average coating shall not be less than 65 microns. No mechanical operation, such as welding, drilling, etc. should be carried out on the pole structure post hot dip galvanizing. The poles shall have door of about 470 mm length and shall be vandal resistance and shall be weather proof to ensure safety of inside connection as approved by the Depts. The door shall be flush with the exterior surface and shall have suitable locking arrangement with provision for connectors, MCB, etc. (to be supplied by others). Complete pole shall be treated with high quality epoxy zinc primer and thereafter coated with environmentally stable Polyurethane paint to minimum average DFT of 70 microns.The pole manufacture must have ISO 9001/14001/45001 and CE certification and the same shall be attached alongwith tender submission. Kesslec STYLE POLE/ Reytek / Neri Make						
79	Supply of Decorative Pole of 9M column structure with an aesthetic curved designed Double arm decorative bracket. The Pole Shaft should be fabricated out of Steel tube of grade YST 240. Structurally designed base plate of Steel Steel of grade E250 Conforming to IS 226/ IS 2062 should be welded with the pole shaft. The structure should be completely hot-dip galvanized and surface finished with PU paint. The pole should be of large section at the base with height of 4M made up of Tapered fabricated sheet as per IS 1079, welded with pipe dia of 165mm through which two single ended branch coming out with dia. 76mm. The base plate shall be of	no	20	58,448.75	11,68,975.00		

	370mmx370mmx16mm suitable for mounting on 4 nos foundation bolts. The pole shall be made of Mild Steel with Hot Dip Galvanizing coating including base plate as per ASTM A123. The pole shall be of 'composite' construction designed to withstand specified 'dead load' pertaining to the luminaire and its mounting accessories and 'wind load' corresponding to a basic wind speed of 169 kmph without any deformation or damage to the structure. The welding shall be of high quality, carried out by qualified welders using approved welding procedures and tested for its quality through NDT method, such as DP Test. The pole shaft structure shall be hot dip galvanized through single dip process as per ASTM A123 and minimum average coating shall not be less than 65 microns. No mechanical operation, such as welding, drilling, etc. should be carried out on the pole structure post hot dip galvanizing. The poles shall have door of about 470 mm length and shall be vandal resistance and shall be weather proof to ensure safety of inside connection as approved by the Depts. The door shall be flush with the exterior surfa ce and shall have suitable locking arrangement with provision for connectors, MCB, etc. (to be supplied by others). Complete pole shall be treated with high quality epoxy zinc primer and thereafter coated with environmentally stable Polyurethane paint to minimum average DFT of 70 microns.The pole manufacture must have ISO 9001/14001/45001 and CE certification and the same shall be attached alongwith tender submission. Kesslec STYLE POLE 9M / Reytek / Neri Make						
80	Supply of 4 Mtr height Urban Street Light Pole Hot dip Galvanized and PU painted having pipe size of 100x100 mm square pipe (as per drawing) with thickness of 3 mm Pole shall be mounted on square base plate 200*200 *12	no	20	19,118.75	3,82,375.00		

	mm thickness suitable for mounting on 4 nos foundation bolts. The pole must have a provision of extended Single Arm bracket of 500mm length with the provision of integrated IP66 luminaire protected with an IK08 rated polycarbonate lens and separate control gear compartment. Overall System efficacy at 130Lm/W at 4000K CCT. Surge Protection provided at 10kV for both Common and Differential mode. The Pole Shaft should be fabricated out of Steel tube of grade YST 240. Structurally designed base plate of Steel Steel of grade E250 Conforming to IS 226/ IS 2062 should be welded with the pole shaft. The pole shall be of 'composite' construction designed to withstand specified 'dead load' pertaining to the luminaire and its mounting accessories and 'wind load' corresponding to a basic wind speed of 169 kmph without any deformation or damage to the structure. The welding shall be of high quality, carried out by qualified welders using approved welding procedures and tested for its quality through NDT method, such as DP Test. The pole shaft structure shall be hot dip galvanized through single dip process as per ASTM A123 and minimum average coating shall not be less than 65 microns. No mechanical operation, such as welding, drilling, etc. should be carried out on the pole structure post hot dip galvanizing. The poles shall have door of about 250 mm length and shall be vandal resistance and shall be weather proof to ensure safety of inside connection as approved by the Depts. The door shall be flush with the exterior surface and shall have suitable locking arrangement with provision for connectors, MCB, etc. (to be supplied by others). Complete pole shall be treated with high quality epoxy zinc primer and thereafter coated with environmentally stable Polyurethane paint to minimum average DFT of 70 microns in closed paint booth						

	chamber.The pole manufacture must have ISO 9001/14001/45001 and CE certification and the same shall be attached alongwith tender submission of Kesslec / Reytek / Neri Make						
81	Supply of 9Mtr height Urban Street Light Pole Hot dip Galvanized and PU painted having pipe size of 150x150 mm square pipe (as per drawing). Pole shall be mounted on square base plate 300*300 *16 mm thickness suitable for mounting on 4 nos foundation bolts. The pole must have a provision of extended Single Arm bracket of 1M length with the provision of integrated IP66 luminaire protected with an IK08 rated polycarbonate lens and separate control gear compartment. Overall System efficacy at 110Lm/W at 4000K CCT. Surge Protection provided at 10kV for both Common and Differential mode. The Pole Shaft should be fabricated out of Steel tube of grade YST 240. Structurally designed base plate of Steel Steel of grade E250 Conforming to IS 226/ IS 2062 should be welded with the pole shaft. The pole shall be of 'composite' construction designed to withstand specified 'dead load' pertaining to the luminaire and its mounting accessories and 'wind load' corresponding to a basic wind speed of 169 kmph without any deformation or damage to the structure. The welding shall be of high quality, carried out by qualified welders using approved welding procedures and tested for its quality through NDT method, such as DP Test. The pole shaft structure shall be hot dip galvanized through single dip process as per ASTM A123 and minimum average coating shall not be less than 65 microns. No mechanical operation, such as welding, drilling, etc. should be carried out on the pole structure post hot dip galvanizing. The poles shall have door of about 250 mm length and shall be vandal resistance and shall be weather proof to ensure safety of	no	20	41,515.00	8,30,300.00		

	inside connection as approved by the Depts. The door shall be flush with the exterior surface and shall have suitable locking arrangement with provision for connectors, MCB, etc. (to be supplied by others). Complete pole shall be treated with high quality epoxy zinc primer and thereafter coated with environmentally stable Polyurethane paint to minimum average DFT of 70 microns.The pole manufacture must have ISO 9001/14001/45001 and CE certification and the same shall be attached alongwith tender submission. Kesslec WAKEFIELD 9M / Reytek / Neri Make						
82	Supply of 9Mtr height Urban Street Light Pole Hot dip Galvanized and PU painted having pipe size of 150x150 mm square pipe (as per drawing) with thickness of 3 mm . Pole shall be mounted on square base plate 300*300 *16 mm thickness suitable for mounting on 4 nos foundation bolts. The pole must have a provision of extended Single Arm bracket of 1.25M length with the provision of integrated IP66 luminaire protected with an IK08 rated polycarbonate lens and separate control gear compartment. Overall System efficacy at 130Lm/W at 4000K CCT. Surge Protection provided at 10kV for both Common and Differential mode. The Pole Shaft should be fabricated out of Steel tube of grade YST 240. Structurally designed base plate of Steel Steel of grade E250 Conforming to IS 226/ IS 2062 should be welded with the pole shaft. The pole shall be of 'composite' construction designed to withstand specified 'dead load' pertaining to the luminaire and its mounting accessories and 'wind load' corresponding to a basic wind speed of 169 kmph without any deformation or damage to the structure. The welding shall be of high quality, carried out by qualified welders using approved welding procedures and tested for its quality through NDT method, such as DP Test. The	no	20	43,153.75	8,63,075.00		

	pole shaft structure shall be hot dip galvanized through single dip process as per ASTM A123 and minimum average coating shall not be less than 65 microns. No mechanical operation, such as welding, drilling, etc. should be carried out on the pole structure post hot dip galvanizing. The poles shall have door of about 250 mm length and shall be vandal resistance and shall be weather proof to ensure safety of inside connection as approved by the Depts. The door shall be flush with the exterior surface and shall have suitable locking arrangement with provision for connectors, MCB, etc. (to be supplied by others). Complete pole shall be treated with high quality epoxy zinc primer and thereafter coated with environmentally stable Polyurethane paint to minimum average DFT of 70 microns.The pole manufacture must have ISO 9001/14001/45001 and CE certification and the same shall be attached alongwith tender submission. Kesslec WAKEFIELD 9M / Reytek / Neri Make						
83	SITC of Smart pole as per the Drawings / Specification	no	100	87,400.00	87,40,000.00		
84	Providing cement concrete.for foundation or for concrete filling in 1:2:4 ratio with 20 to 25 mm stone metal duly plastered with necessary curing for pole muffing or any other purpose.	Cu.Mtr	3,400.00	4,823.15	1,63,98,710.00		
85	Providing TMT Bar FE 500/500D reinforcement for RCC work including bending, binding and placing in position complete upto floor two level.	Kg.	1,00,000.00	71.69	71,68,700.00		
86	SITC of 0.1 to 2 Mtr G.I.bracket with 2 coat P.U. Paint with primer(Any Arm Bracket as per architect design). Note : Sample must be Approved from Client / Architect / Consultant before supply.	Kg.	1,50,000.00	109.25	1,63,87,500.00		
87	Providing FRP/GRP arm bracket of having 15˚ arm with 50 mm OD pipe *5 mm thk,1000mm long from pole centre (A) Single arm bracket	no	7	1,787.90	12,515.30		

88	Providing FRP/GRP arm bracket of having 15˚ arm with 50 mm OD pipe *5 mm thk,1000mm long from pole centre (B) Double arm bracket	no	5	2,270.50	11,352.50		
89	Supplying & erecting approved make AMC press moulded composite FRP. loop-in, loop-out approx. 2mm thick box complete with Bakelite connector strip 5way(3P+N+E),DIN rail for mounting mob & hinged doors as per requirement having locking arrangements with mounting clamp with nuts, bolts & washers suitable for erection on pole with cable clamps& earth bolt of following size of box. (A) 300mm x 200mm x 100mm [deep]	no	50	845.50	42,275.00		
90	SITC of electric insulating paint having quantity of paint suitable to apply upto 6 feet on pole with 5 KV strength and following specifications: (Hig electric strength 55 kv/mm, stable upto 200 degree temprature, excellent puncture resistant, resistance to fire, excellent resestance to UV radiation, tough & scratch resistant excellent resistant to oxidation)	no	5,000.00	1,453.50	72,67,500.00		
					20,69,07,676.30		
	Light Fixtures						
	Luminaries with all electrical accessories are prewired upto the terminal block & mounted on a removable control gear module for ease of maintenance. All electrical connections of the control gear module with the rest of the luminaire should be click fix & foolproof & require use of no tools. Mounting options should be for both lateral as well as pole top mounting. Note : All Outdoor Fixture should be minimum IP66						
91	Supply of LED street light luminaire with system power (20W)± 5% , Available in color temperature (4000K-5700K) ,CRI>80, SDCM<3 , LEDs used have a life of 50,000 burning hrs. & Lumen maintenance as per L70 with high power white LEDs wattage of 3 Watt and above	no.	2,550.00	1,634.00	41,66,700.00		

	assembled on single MCPCB, efficiency more than 150 lm/w. The Luminaire System efficacy should be of >=135LPW. The fixture housing must be Made of ADC 12 PDC Aluminium housing for rapid thermal healing & Powder coated by Corrosion resistant Nano coating technology. The luminaire PCB Used for Making Light Engine should be Metal Core PCB made of high grade Al 5052 with minimum 70 micron copper thickness & 2 W/mk thermal conductivity for better thermal maintanance for light Engines.Luminaire must have a Ingress protection of IP66 and Impact Resistance of IK08. The fixture should have an Injection moulded special PC lens optics ensuring low glare & best in class uniformity of >0.45. The luminaire must have Integral encapsulated high efficiency electronic driver of efficiency > 85% having a Aluminium extrusion construction with rated voltage of 140-270V, power factor > 0.95, THD < 10%, with Inbuilt surge protection of 10KV and upgraded with integrated IP67 protected SPD of 20KV/10KA surge protection with all necessary safety protection like mis-wiring, Over voltage, Short circuit, Reverse Polarity protection. Luminaire performance & Safety :IEC 60598, IS 10322-5, IS 161-03/05/06/07, Surge : IEC 61000-4-5, EMC : EN 55015 IES, LM 79, LM 80, & TTC certificates will be provided from NABL accredited lab.						
92	Supply of LED Street light luminaire with system power (45W)± 5% , Available in color temperature (4000K-5700K) ,CRI>80, SDCM<3 , LEDs used have a life of 50,000 burning hrs. & Lumen maintenance as per L70 with high power white LEDs wattage of 3 Watt and above assembled on single MCPCB, efficiency more than 150 lm/w. The Luminaire System efficacy should be of	no.	150	3,024.80	4,53,720.00		

	>=135LPW. The fixture housing must be Made of ADC 12 PDC Aluminium housing for rapid thermal healing & Powder coated by Corrosion resistant Nano coating technology. The luminaire PCB Used for Making Light Engine should be Metal Core PCB made of high grade Al 5052 with minimum 70 micron copper thickness & 2 W/mk thermal conductivity for better thermal maintanance for light Engines.Luminaire must have a Ingress protection of IP66 and Impact Resistance of IK08. The fixture should have an Injection moulded special PC lens optics ensuring low glare & best in class uniformity of >0.45. The luminaire must have Integral encapsulated high efficiency electronic driver of efficiency > 85% having a Aluminium extrusion construction with rated voltage of 140-270V, power factor > 0.95, THD < 10%, with Inbuilt surge protection of 10KV and upgraded with integrated IP67 protected SPD of 20KV/10KA surge protection with all necessary safety protection like mis-wiring, Over voltage, Short circuit, Reverse Polarity protection. Luminaire performance & Safety :IEC 60598, IS 10322-5, IS 161-03/05/06/07, Surge : IEC 61000-4-5, EMC : EN 55015 IES, LM 79, LM 80, & TTC certificates will be provided from NABL accredited lab.						
93	Supply of LED street light luminaire with system power (60W)± 5% , Available in color temperature (3000K-5700K) ,CRI>80, SDCM<3 , LEDs used have a life of 50,000 burning hrs. & Lumen maintenance as per L70 with high power white LEDs wattage of 3 Watt and above assembled on single MCPCB, efficiency more than 150 lm/w. The Luminaire System efficacy should be of >=135LPW. The fixture housing must be Made of ADC 12 PDC Aluminium housing for rapid thermal healing &	no.	2,500.00	4,539.10	1,13,47,750.00		

	Powder coated by Corrosion resistant Nano coating technology. The luminaire PCB Used for Making Light Engine should be Metal Core PCB made of high grade Al 5052 with minimum 70 micron copper thickness & 2 W/mk thermal conductivity for better thermal maintanance for light Engines.Luminaire must have a Ingress protection of IP66 and Impact Resistance of IK08. The fixture should have an Injection moulded special PC lens optics ensuring low glare & best in class uniformity of >0.45. The luminaire must have Integral encapsulated high efficiency electronic driver of efficiency > 85% having a Aluminium extrusion construction with rated voltage of 140-270V, power factor > 0.95, THD < 10%, with Inbuilt surge protection of 10KV and upgraded with integrated IP67 protected SPD of 20KV/10KA surge protection with all necessary safety protection like mis-wiring, Over voltage, Short circuit, Reverse Polarity protection. Luminaire performance & Safety :IEC 60598, IS 10322-5, IS 161-03/05/06/07, Surge : IEC 61000-4-5, EMC : EN 55015 IES, LM 79, LM 80, & TTC certificates will be provided from NABL accredited lab.						
94	Supply of LED street light luminaire with Dimmable Driver with system power (90W)± 5% , Available in color temperature (3000K-5700K) ,CRI>80, SDCM<3 , LEDs used have a life of 100,000 burning hrs. & Lumen maintenance as per L90 with high power white LEDs wattage of 3 Watt and above assembled on single MCPCB, efficiency more than 150 lm/w. The Luminaire System efficacy should be of >=135LPW. The fixture housing must be Made of ADC 12 PDC Aluminium housing for rapid thermal healing & Powder coated by Corrosion resistant Nano coating technology. The	no.	2,000.00	5,459.65	1,09,19,300.00		

	luminaire PCB Used for Making Light Engine should be Metal Core PCB made of high grade Al 5052 with minimum 70 micron copper thickness & 2 W/mk thermal conductivity for better thermal maintanance for light Engines.Luminaire must have a Ingress protection of IP66 and Impact Resistance of IK08. The fixture should have an Injection moulded special PC lens optics ensuring low glare & best in class uniformity of >0.45. The luminaire must have Integral encapsulated high efficiency electronic driver of efficiency > 85% having a Aluminium extrusion construction with rated voltage of 140-270V, power factor > 0.95, THD < 10%, with Inbuilt surge protection of 10KV and upgraded with integrated IP67 protected SPD of 20KV/10KA surge protection with all necessary safety protection like mis-wiring, Over voltage, Short circuit, Reverse Polarity protection. Luminaire performance & Safety :IEC 60598, IS 10322-5, IS 161-03/05/06/07, Surge : IEC 61000-4-5, EMC : EN 55015 IES, LM 79, LM 80, & TTC certificates will be provided from NABL accredited lab.						
95	Supply of LED street light luminaire with Dimmable Driver with system power (120W)± 5% , Available in color temperature (4000K-5700K) ,CRI>80, SDCM<3 , LEDs used have a life of 100,000 burning hrs. & Lumen maintenance as per L90 with high power white LEDs wattage of 3 Watt and above assembled on single MCPCB, efficiency more than 150 lm/w. The Luminaire System efficacy should be of >=135LPW. The fixture housing must be Made of ADC 12 PDC Aluminium housing for rapid thermal healing & Powder coated by Corrosion resistant Nano coating technology. The luminaire PCB Used for Making Light Engine should be Metal Core PCB made of high grade Al 5052 with	no.	200	6,014.45	12,02,890.00		

	minimum 70 micron copper thickness & 2 W/mk thermal conductivity for better thermal maintanance for light Engines.Luminaire must have a Ingress protection of IP66 and Impact Resistance of IK08. The fixture should have an Injection moulded special PC lens optics ensuring low glare & best in class uniformity of >0.45. The luminaire must have Integral encapsulated high efficiency electronic driver of efficiency > 85% having a Aluminium extrusion construction with rated voltage of 140-270V, power factor > 0.95, THD < 10%, with Inbuilt surge protection of 10KV and upgraded with integrated IP67 protected SPD of 20KV/10KA surge protection with all necessary safety protection like mis-wiring, Over voltage, Short circuit, Reverse Polarity protection. Luminaire performance & Safety :IEC 60598, IS 10322-5, IS 161-03/05/06/07, Surge : IEC 61000-4-5, EMC : EN 55015 IES, LM 79, LM 80, & TTC certificates will be provided from NABL accredited lab.						
96	Supply of LED street light luminaire with Dimmable Driver with system power (150W)± 5% , Available in color temperature (3000K-5700K) ,CRI>80, SDCM<3 , LEDs used have a life of 100,000 burning hrs. & Lumen maintenance as per L90 with high power white LEDs wattage of 3 Watt and above assembled on single MCPCB, efficiency more than 150 lm/w. The Luminaire System efficacy should be of >=135LPW. The fixture housing must be Made of ADC 12 PDC Aluminium housing for rapid thermal healing & Powder coated by Corrosion resistant Nano coating technology. The luminaire PCB Used for Making Light Engine should be Metal Core PCB made of high grade Al 5052 with minimum 70 micron copper thickness & 2 W/mk thermal	no.	4,000.00	7,246.60	2,89,86,400.00		

	conductivity for better thermal maintanance for light Engines.Luminaire must have a Ingress protection of IP66 and Impact Resistance of IK08. The fixture should have an Injection moulded special PC lens optics ensuring low glare & best in class uniformity of >0.45. The luminaire must have Integral encapsulated high efficiency electronic driver of efficiency > 85% having a Aluminium extrusion construction with rated voltage of 140-270V, power factor > 0.95, THD < 10%, with Inbuilt surge protection of 10KV and upgraded with integrated IP67 protected SPD of 20KV/10KA surge protection with all necessary safety protection like mis-wiring, Over voltage, Short circuit, Reverse Polarity protection. Luminaire performance & Safety :IEC 60598, IS 10322-5, IS 161-03/05/06/07, Surge : IEC 61000-4-5, EMC : EN 55015 IES, LM 79, LM 80, & TTC certificates will be provided from NABL accredited lab.						
97	Supply of LED street light luminaire with Dimmable Driver with system power (170W)± 5% , Available in color temperature (3000K-5700K) ,CRI>80, SDCM<3 , LEDs used have a life of 100,000 burning hrs. & Lumen maintenance as per L90 with high power white LEDs wattage of 3 Watt and above assembled on single MCPCB, efficiency more than 150 lm/w. The Luminaire System efficacy should be of >=135LPW. The fixture housing must be Made of ADC 12 PDC Aluminium housing for rapid thermal healing & Powder coated by Corrosion resistant Nano coating technology. The luminaire PCB Used for Making Light Engine should be Metal Core PCB made of high grade Al 5052 with minimum 70 micron copper thickness & 2 W/mk thermal conductivity for better thermal maintanance for light	no.	1,500.00	8,405.60	1,26,08,400.00		

	Engines.Luminaire must have a Ingress protection of IP66 and Impact Resistance of IK08. The fixture should have an Injection moulded special PC lens optics ensuring low glare & best in class uniformity of >0.45. The luminaire must have Integral encapsulated high efficiency electronic driver of efficiency > 85% having a Aluminium extrusion construction with rated voltage of 140-270V, power factor > 0.95, THD < 10%, with Inbuilt surge protection of 10KV and upgraded with integrated IP67 protected SPD of 20KV/10KA surge protection with all necessary safety protection like mis-wiring, Over voltage, Short circuit, Reverse Polarity protection. Luminaire performance & Safety :IEC 60598, IS 10322-5, IS 161-03/05/06/07, Surge : IEC 61000-4-5, EMC : EN 55015 IES, LM 79, LM 80, & TTC certificates will be provided from NABL accredited lab.						
98	Supplying of LED Flood light fittings with High power White LEDs wattage of 3 Watt and above assembled on single MCPCB, corrosion free High pressure die cast aluminum housing with smooth finish powder coated and heat sink extruded aluminium with diffuser and Polycarbonate optics/ lenses, with toughened glass with company mark/name engraved or embossed 160 to 270 V,Power Factor more than 0.95, THD < 10 %, CCT 4000 K to 5700K,Uniformity ratio >0.45, Luminaire efficacy> 145 lumens/watt . LED driver efficiency > 85 %.(fittings required LM-79 & LM-80 certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.) (B) Flood Light (IP-66), Surge protection 10KV integral and ,Light must have 440VAC line supply with over-	no.	10	5,565.10	55,651.00		

	voltage protection. (iii) above 90 watts Watts						
99	Supplying of LED Flood light fittings with High power White LEDs wattage of 3 Watt and above assembled on single MCPCB, corrosion free High pressure die cast aluminum housing with smooth finish powder coated and heat sink extruded aluminium with diffuser and Polycarbonate optics/ lenses, with toughened glass with company mark/name engraved or embossed 160 to 270 V,Power Factor more than 0.95, THD < 10 %, CCT 4000 K to 5700K,Uniformity ratio >0.45, Luminaire efficacy> 145 lumens/watt . LED driver efficiency > 85 %.(fittings required LM-79 & LM-80 certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.) (B) Flood Light (IP-66), Surge protection 10KV integral and ,Light must have 440VAC line supply with over-voltage protection. (iv) above 120 watts	no.	20	6,673.75	1,33,475.00		
100	Supplying of LED Flood light fittings with High power White LEDs wattage of 3 Watt and above assembled on single MCPCB, corrosion free High pressure die cast aluminum housing with smooth finish powder coated and heat sink extruded aluminium with diffuser and Polycarbonate optics/ lenses, with toughened glass with company mark/name engraved or embossed 160 to 270 V,Power Factor more than 0.95, THD < 10 %, CCT 4000 K to 5700K,Uniformity ratio >0.45, Luminaire efficacy> 145 lumens/watt . LED driver efficiency > 85 %.(fittings required LM-79 & LM-80 certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.)	no.	20	7,790.00	1,55,800.00		

	(B) Flood Light (IP-66), Surge protection 10KV integral and ,Light must have 440VAC line supply with over-voltage protection. (v) above 160 watts						
101	Supplying of LED Flood light fittings with High power White LEDs wattage of 3 Watt and above assembled on single MCPCB, corrosion free High pressure die cast aluminum housing with smooth finish powder coated and heat sink extruded aluminium with diffuser and Polycarbonate optics/ lenses, with toughened glass with company mark/name engraved or embossed 160 to 270 V,Power Factor more than 0.95, THD < 10 %, CCT 4000 K to 5700K,Uniformity ratio >0.45, Luminaire efficacy> 145 lumens/watt . LED driver efficiency > 85 %.(fittings required LM-79 & LM-80 certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.) (B) Flood Light (IP-66), Surge protection 10KV integral and ,Light must have 440VAC line supply with over-voltage protection. (vi) above 200 Watts	no.	20	8,912.90	1,78,258.00		
102	Supplying of LED Flood light fittings with High power White LEDs wattage of 3 Watt and above assembled on single MCPCB, corrosion free High pressure die cast aluminum housing with smooth finish powder coated and heat sink extruded aluminium with diffuser and Polycarbonate optics/ lenses, with toughened glass with company mark/name engraved or embossed 160 to 270 V,Power Factor more than 0.95, THD < 10 %, CCT 4000 K to 5700K,Uniformity ratio >0.45, Luminaire efficacy> 145 lumens/watt . LED driver efficiency > 85 %.(fittings required LM-79 & LM-80 certificates)(NOTE: Below description have shown ranges of Wattage	no.	20	10,013.95	2,00,279.00		

	capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.) (B) Flood Light (IP-66), Surge protection 10KV integral and ,Light must have 440VAC line supply with over-voltage protection. (vii) above 250 watts						
103	Installation, Testing and Commissioning of Light Fitting at specified height Complete in all respect (i) above 20 watts	no.	2,550.00	80.75	2,05,912.50		
104	Installation, Testing and Commissioning of Light Fitting at specified height Complete in all respect (ii) above 45 Watts	no.	150	121.60	18,240.00		
105	Installation, Testing and Commissioning of Light Fitting at specified height Complete in all respect (iii) Above 60 watts	no.	2,500.00	161.50	4,03,750.00		
106	Installation, Testing and Commissioning of Light Fitting at specified height Complete in all respect (iv) above 90 watts	no.	2,010.00	161.50	3,24,615.00		
107	Installation, Testing and Commissioning of Light Fitting at specified height Complete in all respect (v)above 120 watts	no.	4,240.00	161.50	6,84,760.00		
108	Installation, Testing and Commissioning of Light Fitting at specified height Complete in all respect (vi)above 170 watts	no.	1,500.00	161.50	2,42,250.00		
109	Installation, Testing and Commissioning of Light Fitting at specified height Complete in all respect (vii) 90 watts	no.	40	121.60	4,864.00		
110	Installation, Testing and Commissioning of Light Fitting at specified height Complete in all respect (vii) 120 watts	no.	40	161.50	6,460.00		
111	Installation, Testing and Commissioning of Light Fitting at specified height Complete in all respect (vii) 160 watts	no.	40	161.50	6,460.00		
112	Installation, Testing and Commissioning of Light Fitting at specified height Complete in all respect (vii) 200 watts	no.	40	161.50	6,460.00		
113	Installation, Testing and Commissioning of Light Fitting at specified height Complete in all respect (vii) 250 watts	no.	40	161.50	6,460.00		

114	Supplying and erecting LED street light / Flood light fittings with High power White LEDs wattage of 3 Watt and above assembled on single MCPCB, efficiency more than 130 lm/w and corrosion free High pressure die cast aluminum housing with smooth finish powder coated and heat sink extruded aluminium with diffuser and Polycarbonate optics/ lenses, with toughened glass with company mark/name engraved or embossed 160 to 270 V,Power Factor more than 0.95, THD < 10 %, CCT 3000 K to 5700K,Uniformity ratio >0.45, Luminaire efficacy> 100 lumens/watt . LED driver efficiency > 85 %.(fittings required LM-79 & LM-80 certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.) (C) Post Top Lantern LED fitting comprises of finish cast aluminum spigot and spun aluminum canopy fixed with opal polycarbonate, pipe arrangement for vertical mounting driver and accessories wired upto terminal block.IP 66 (ii)32-40W	no.	200	4,533.40	9,06,680.00		
					7,32,25,534.50		
	Earthing						
	Plate Type Earthing Supplying & erecting funnel type earthing having earth plate of following size burred in specifically prepared earth pit 3 mtr. below ground with 40 kg. charcoal and salt with alternate layers of charcoal & salt, 20mm.dia. G.I. pipe with Funnel with a wire mesh for watering & bricks masonry block, C.I. Cover complete as per para 7.3 of IS 3043 with necessary length of double Galvanised Iron / copper earth wire No 6 SWG bolted with lug to the plate and covered in 12 mm dia. G.I. pipe 2.5 mtr long complete connected to the nearest switch gear with end socket as						

	per direction & duly tested by earth tester confirming to IS (As per drawing) with following specification						
115	(C) with 60 x 60x 0.315 cms. Copper earth Plate	no	10	7,407.15	74,071.50		
116	(B) With 45 x 45 x 0.35 cms. G.I. earth plate	no	20	2,415.85	48,317.00		
	Chemical Type Earthing Supplying & erecting in earthpit of minimum bore dia. 225mm size , approved make Safe Earthing Electrode consisting Pipe-in-Pipe Technology as per IS 3043-1987 made of Copper Pipes having Outer pipe dia of 50mm having , Inner pipe dia of 40 mm , connection terminal dia of 14 mm with constant ohmic value surrounded by highly conductive compound with high charge dissipation suitable for following type of applications.						
117	(a) For Electrical Installation up to 440V in normal soil Length of pipe - 1 Mtr Back filling compound - 1 Nos Bag of 15 Kg.	no	50	4,318.70	2,15,935.00		
118	(a) For Electrical Installation up to 440V in normal soil Length of pipe - 2 Mtr Back filling compound - 1 Nos Bag of 25 Kg.	no	1,200.00	5,417.85	65,01,420.00		
119	Pipe type earthing with 40 mm dia 2.5 mtr long 'B' grade G.I. pipe with necessary coupling buch buried in specially prepared earth pit & G.I. earth wire of 8 SWG erected & connected as directed (For panel)	Ea.	10,000.00	774.25	77,42,500.00		
	Earth wire/strips :						
	Supply and laying required size Cu/GI. earthing strips for interconnecting the earthing stations, panels, section piller etc. in built up trenches, on walls/ceiling, buried in ground generally as specified and shown on drawings complete with : a) Fixing accessories. b) Corrosion protection of buried conductors with bituminous coating and covered with PVC tapes						
120	25 x 3 mm GI. strip	Kg.	1,000.00	73.15	73,150.00		
121	No.8 gauge bare cu. earth wire	Kg.	750	747.65	5,60,737.50		

122	Providing and erecting HOT deep Galvanised iron strip/ wire 8 to 16 SWG.	Kg.	20,000.00	73.15	14,63,000.00		
					1,66,79,131.00		
	Miscellanious						
123	Pole dismantling, carting and to submit at AMC store. (4 mtr to 10 mtr height)	no	1,000.00	1,007.00	10,07,000.00		
124	**The temporary illumination work** Providing of minimum of 10 nos. of LED Flood light minimum 150 Watt flood light and its temporary wiring in each job in existing road / service road as per client requirement	Job	20	47,500.00	9,50,000.00		
125	Providing , erecting , fabricating the M.S. structure as per requirment on site incorporatingproper size of M.S. angles, flats, bars, channels, pipes, sections, Sheets & for the pole swaging with the suitable dia pipe complete with cutting, welding, grinding & finishing duly painted with two coat of redoxide with erection on site as per direction of engineer in charge with necessary gouting, cementing, plastering & finishing complete as per the instruction of the engineer incharge.	Kg	10,000.00	73.15	7,31,500.00		
	Total Amount of Miscellanious				**26,88,500.00**		
124	**The temporary illumination work** Providing of minimum of 10 nos. of LED Flood light minimum 150 Watt flood light and its temporary wiring in each job in existing road / service road as per client requirement	Job	20	47,500.00	9,50,000.00		
125	Providing , erecting , fabricating the M.S. structure as per requirment on site incorporatingproper size of M.S. angles, flats, bars, channels, pipes, sections, Sheets & for the pole swaging with the suitable dia pipe complete with cutting, welding, grinding & finishing duly painted with two coat of redoxide with erection on site as per direction of engineer in charge with necessary gouting, cementing,	Kg	10,000.00	73.15	7,31,500.00		

	plastering & finishing complete as per the instruction of the engineer incharge.						
	Total Amount of Miscellanious				**26,88,500.00**		
				Total	**41,77,86,999.55**		

SR NO.	DESCRIPTION	UNIT	QTY	ESTIMATED		Quoted Value	
				RATE	TOTAL	Discount Offered by Bidder	Evaluated Price in Rs. after Discount
1	SITC of a Smart Cabinet Controller to manage group-based feeder operations and act as a gateway for individual RF Mesh-based Outdoor Lighting Controllers (OLCs) with 5 year standard warranty. The Cabinet Controller must integrate multiple functionalities into a single DIN-rail-mountable housing and meet high-end functional, safety, and connectivity standards as per international compliance. Should have Wide input voltage range (85–305 V AC) with surge protection and no external PSU required, Dual-core MCU with AI acceleration, 16MB flash, 8MB PSRAM, At least 4 bi-stable latching relays (≥5A @230V AC each), Integrated LTE CAT-1 with GSM fallback, Ethernet, GNSS (GPS), and Bluetooth 5, RF Mesh Gateway functionality supporting up to 200 OLCs (2.4 GHz IEEE 802.15.4 AES-128 encrypted, Built-in RS485/Modbus for smart meter connectivity, 2 or more configurable digital inputs, optional analog/digital inputs, USB port for offline firmware updates and data extraction, Real-Time Clock (RTC) for accurate astronomical calculations, Optional DALI interface supporting DT6, DT7, DT8 standards, OTA firmware updates for controller and OLCs, secure and scalable, Secure cloud and LAN communications (SSL,	Each	4,500.00	46,075.00	20,73,37,500.00	**Not to be filled by the Bidder.** **(Total Percentage of discount automatically derived based on column E from the Price Bid table)**	**Not to be filled by the Bidder.** **(Total cost shall be automatically calculated based on the discount offered by bidder from the Price bid table)**

	VPN, OAuth2), Compliance to EN 60950, EN IEC 62368, CE RED, and other safety & radio certifications, IP20 fire-retardant housing (UL94-V0) with QR-coded identification, Remote monitoring, control, configuration via LMS and API interoperability with SCADA/Asset Management/Or any third party software / platform						

2	SITC of modular external combinable enclosure system for housing and upgrading panel-level accessories in the Smart Streetlight Control System. The enclosure shall be suitable for outdoor/harsh environments with complete insulation, high durability, and compliance to international protection and safety standards. Should have Modular, insulation-enclosed, total insulated combinable enclosure system , Designed for assembly of Power Switchgear and Controlgear Assembly (PSC) up to 630 A, Conforms to IEC 61439 Part 2 and Part 1, para 10.2.4, Protection Class: IP 65, Class II (total insulation), Material: High-grade PC (Polycarbonate), self-extinguishing and flame retardant, UV-resistant, weatherproof, and suitable for long-term outdoor use, Glow Wire Test compliant as per IEC 60695-2-11, Silicone- and halogen-free for safe, toxic-free operation, High chemical resistance – resistant to acids, alkalis, petrol, and mineral oil, Provision for DIN rail mounting, cable entries, lockable door, ventilation (if required), and earthing as per standard, Suitable for installation of relays, controllers, fuses, meters, terminals, and other allied accessories	Each	1,000.00	5,700.00	57,00,000.00		

3	SITC of multifunction energy meters with compatible CTs and necessary allied accessories for feeder and individual load monitoring. The meter must support real-time measurement of voltage, current, power factor, frequency, active/reactive/apparent power, and energy consumption parameters. It shall have Modbus RS485 communication for integration with the central management system. CTs must be accuracy class 1 or better, appropriately rated, and calibrated. The solution must include wiring, terminal connectors, DIN rail mounting arrangement, and proper labelling.	Each	4,000.00	7,477.45	2,99,09,800.00		
4	Supply, Installation, Testing and Commissioning (SITC) of a panel-mounted, multi-circuit energy monitoring system for monitoring 6, 9, 12, or 18 or as per site requirements outgoing circuits within feeder panels or distribution boards. The system must enable real-time measurement and reporting of power, energy, and circuit-level load status to enable efficient energy management, fault detection, and operational optimization. should be in full compliance with the requirements and configurations specified in the detailed technical specifications section.	Each	500	20,900.00	1,04,50,000.00		
5	SITC of feeder panel accessory with modular contactor or relay-based switching devices, or MCB-integrated controller units for remote operation of streetlight circuits. Including manual switch to override Cabinet Controller when needed. And surge protector for the Cabinet Controller. The system must support on/off control commands from the central LMS and include manual override provision. The device	Each	4,000.00	11,875.00	4,75,00,000.00		

	shall be suitable for DIN rail mounting, rated for required load capacity, and include necessary protection features. Communication and control integration with feeder-level or individual-level controllers must be ensured.						

5	Software Licenses, Design, Development, Delivery and Hosting on Secure Cloud, Street Light Smart Management Software as described; Secure Database, Remote Controlling, Monitoring, Power metering features and Reports Generation & Delivery; Local Language inclusion if needed, API access and integration support to CMS/ SCADA system; 24 x 7 ticketing system access; Advance User Rights Management to limit control per User, Unlimited Users per Project/ Organization, Equipment Activation in LMS, Local Training on Software platform, All types of Recurring Charges & All Upgrades, O&M, Bug fixing, Security Updates for two years for 25,000 Cabinet Controllers and Outdoor Lamp Controllers. Hosting, Customization and Delivery of Mobile and Web Applications for Smart Street Light Management for field activity, maintenance crew, special access control, event management as described; 24 x 7 ticketing system access; User Rights Management, Unlimited Users per Project/ Organization, Equipment Activation in LMS, Training on Mobile apps, All types of Recurring Charges & All Upgrades, O&M, Bug fixing, Security Updates for Five years for 25,000 Cabinet Controllers and Outdoor Lamp Controllers. should be in full compliance with the requirements and configurations specified in the detailed technical specifications section. The scope also includes Supply, Installation, Testing, and Commissioning (SITC) of a web-based, centralized Helpdesk Software System for managing service requests, complaints, maintenance calls, and issue tracking across	Each	1	2,85,00,000.00	2,85,00,000.00		

	departments and field teams within the city's command and control operations. The system shall support multi-user and multi-role access with configurable workflows, and provide a browser-accessible interface compatible with desktop and mobile devices. The Helpdesk Software shall include features such as ticket creation (manual and automated), assignment, SLA-based escalation, resolution tracking, feedback capture, and closure with audit trails. It must support multi-channel input including web portal, email parsing, mobile app integration, and optionally WhatsApp or SMS bot. The solution shall include a real-time dashboard for ticket status, SLA compliance, and KPI monitoring, with exportable reports in PDF/Excel formats. The system must allow user authentication via Role-Based Access Control (RBAC) and optionally integrate with LDAP/Active Directory. A searchable internal knowledge base, SOP/document upload module, and complaint category-wise configuration shall be included. The backend shall be developed on an open-source stack (Node.js/PHP/Python) with a relational database (PostgreSQL/MySQL) hosted on a secure Linux-based server (Ubuntu LTS or RHEL). The software must comply with Government of India standards on data security, including SSL- encrypted HTTPS access, OWASP-aligned input validation, and server hardening as per CERT-In advisories. The system shall be capable of handling a minimum of 10,000 tickets per month and 500 concurrent users, with automated backup, restore, and recovery options.						

	The SITC scope includes deployment (on-premise or cloud), initial configuration, administrator and operator training, user manual, mobile app (if applicable), SOP documentation, and 5-year technical support with remote troubleshooting and software updates. should be in full compliance with the requirements and configurations specified in the detailed technical specifications section. The scope also includes the integration of existing nodes through API						

6	Hosting, Customization and Delivery of Mobile and Web Applications for Smart Street Light Management for field activity, maintenance crew, special access control, event management as described; 24 x 7 ticketing system access; User Rights Management, Unlimited Users per Project/ Organization, Equipment Activation in LMS, Training on Mobile apps, All types of Recurring Charges & All Upgrades, O&M, Bug fixing, Security Updates for five years for 10,000 Cabinet Controllers and Outdoor Lamp Controllers. should be in full compliance with the requirements and configurations specified in the detailed technical specifications section.	Each	1	95,00,000.00	95,00,000.00		
7	SITC of Zhaga book 18 compliant Integrated Outdoor Lamp Controller (Z-OLC) with built-in 2.4 GHz IEEE 802.15.4 RF-mesh radio compatible with Cabinet Controller, ambient-light sensor, real-time clock, DALI D4i accurate power metering, Class II electrical protection, IP65 / IK09 UL94-V0 fire-resistant housing, OTA firmware-update capability, 18–30 V DC input, support for DALI 2.0 / D4i and 0–10 V dimming, motion-sensor ready, QR-code identification, supplied with firmware updates, bug fixes at no additional costs, and complete certifications. 5 year standard warranty. should be in full compliance with the requirements and configurations specified in the detailed technical specifications section.	Each	15,000.00	6,175.00	9,26,25,000.00		

8	SITC of pole-mounted Outdoor Lamp Controller (P-OLC) with NEMA 5-pin ANSI C136.41 receptacle, integrated 2.4 GHz IEEE 802.15.4 RF-mesh radio compatible with Cabinet Controller, pole adaptor and 5.5 meter power/control cable; support for 0-10V /1–10 V dimming; control for up to 4 street light fixtures (total 400 W); built-in RTC, Astro-clock scheduling, 4 kV surge & Class II galvanic isolation; input 96–264 V AC 50/60 Hz; under/over-voltage cut-off <170 V / >270 V, UL94-V0 flame-retardant housing, AES-128 encrypted communication, OTA firmware updates, motion-sensor ready, unique QR-code ID, supplied with complete with firmware updates, bug fixes at no additional costs, and complete certifications. 5 year standard warranty. should be in full compliance with the requirements and configurations specified in the detailed technical specifications section.	Each	15,000.00	7,410.00	11,11,50,000.00		
9	SITC of high-quality, 5-core flexible cable with 2.5 sq.mm cross-sectional area for power and control signal transmission between pole-mounted luminaries and NEMA-based streetlight controllers. The cable shall ensure safe, durable, and weather-resistant operation in outdoor environments, conforming to relevant IS/IEC standards. Should have 5-core flexible cable, 2.5 sq.mm per core, Suitable for both power supply and signal communication from NEMA controllers to luminaries, Insulated with high-grade PVC/XLPE compound for mechanical and thermal endurance, UV-resistant, weatherproof and suitable for outdoor installations, Flame-retardant and low-smoke emission type as per IS	Meter	1,50,000.00	74.10	1,11,15,000.00		

	694/IEC 60227, Operating voltage: up to 1100V, Color-coded cores for easy identification, Compatible with conduit or pole-mounted clamp installation, Minimum bending radius and high flexibility for pole-top application						

10	Supply, Installation, Testing, and Commissioning (SITC) of an enterprise-grade, rack-mounted server system with disaster recovery setup in full compliance with MeitY (Ministry of Electronics and Information Technology, Government of India) guidelines for hosting centralized applications such as Smart Infrastructure Management Software, SCADA, or Street Light Management Platforms at the City Command Centre. The server shall be of 2U/4U industrial rack-mountable form factor, equipped with dual Intel Xeon Silver/Gold or AMD EPYC processors with a minimum of 16 physical cores in total, 128 GB ECC DDR4 RAM (expandable up to 512 GB), and storage comprising 4 TB NVMe SSD configured in RAID 5 for OS and application hosting, and 10 TB enterprise grade SATA HDD configured in RAID 6 for local data archival. The system shall support 4 × 1 Gbps RJ45 and 2 × 10 Gbps SFP+ Ethernet interfaces, redundant hot-swappable platinum-rated power supplies, hardware RAID controller with battery backup unit (BBU), and remote management capabilities via IPMI/BMC with web-based KVM. The server shall come pre-installed with a MeitY-compliant operating system (Ubuntu LTS / RHEL / Windows Server), hardened as per CERT-In security advisories. A disaster recovery (DR) setup must be commissioned at a geographically separated Tier III or higher data centre located within India, ensuring real-time or near-real-time asynchronous data replication with an RPO of ≤15 minutes and RTO of ≤1 hour. The DR setup shall include minimum 5 TB usable replicated storage	Each	1	25,65,000.00	25,65,000.00		

	with secure transmission protocols (SSL/TLS or AES-256 encrypted VPN tunnels), along with scheduled backup policy (1 Full + 7 Incremental + Monthly Retention), DR drill capability (at least twice a year), audit-ready SOPs, failover/failback procedures, and 24x7 monitoring dashboard for replication health. The scope shall also include an online UPS system of minimum 2 kVA rating with ≥60 minutes backup time using SMF/VRLA batteries, and a 16-port managed Layer 2/3 industrial Ethernet switch with VLAN, QoS, SNMP support. All power/data/network cables, connectors, rack-mount kits, documentation, testing tools, licenses (if applicable), training for staff, and commissioning services shall be included as part of the SITC deliverables. should be in full compliance with the requirements and configurations specified in the detailed technical specifications section.						

11	SITC of a desktop workstation for individual operators at the zone level. The workstation must be suitable for operating the Street Light Management Software and handling administrative and reporting tasks. It shall come pre- installed with a licensed Windows Operating System, MS Office suite, antivirus software, and necessary drivers. The system should have appropriate processing power, RAM, and display resolution for multi-window monitoring and data processing. should be in full compliance with the requirements and configurations specified in the detailed technical specifications section. Intel® Core™ i7-12th generation, 4.0 GHz or higher, Minimum 32GB RAM, Minimum 512 GB separate SSD hard drive for OS and 1TB HDD for Data, DVD R/W, Graphics Adapter - Intel®IRIS XE Graphics or equivalent for local client GPU rendering support, latest Windows professional OS (64-bit OS versions recommended), Video Monitor Resolution- 1280x1024 pixels, 32 bit with keyboard and mouse. with all required software like MS office, 5Year antivirus etc..	Each	8	1,18,750.00	9,50,000.00		
12	Provision of cellular / IoT data connectivity for smart streetlight controllers and feeder-level equipment, enabling real-time communication with the central LMS platform. The charges cover SIM card provisioning, activation, and monthly data usage for device communication. The service must ensure secure, uninterrupted data transmission with sufficient bandwidth and fallback mechanisms as applicable. The recurring charges shall be paid in the O&M section by the	Each	4,552.00	47.50	2,16,220.00		

	department on a monthly basis upon submission of invoice and usage details.						
13	Providing of qualified and trained support staff from the OEM for on-site operation, maintenance, and technical support at the Control Command Centre. The deployment shall cover THREE shifts per day (24X7) to ensure round-the-clock availability of personnel for managing the Street Light Management Software, attending to alerts, coordinating with field teams, and generating daily/weekly reports. The staff shall also assist in troubleshooting, routine diagnostics, and training of municipal personnel as required. 8 Hour/Shift for 7 Days week, 3 Person for 60 months should be in full compliance with the requirements and configurations specified in the detailed technical specifications section.	Per Person/Month	180	39,900.00	71,82,000.00		
	CMS Work Total Amount				**56,47,00,520.00**		
14	**Section Feeder Panels Type-A**						

	Supplying, unloading at site, shifting to site, assembling, leveling, grouting, erecting, Testing, & Commissioning double compartmentalized Street light control panel with IP 65 protection & Enclosure should be powder coated fabricated from 10 Gauge M.S. sheet & folded channel totally enclosed cubical type. with pad lock arrangement. The successful tenderer will have to prepare general arrangement with dimensions & get it approve through Architect/ Consultant. All civil work including RCC platform for street light panel should be in scope of Electrical contractor complete in all respect as per detail drawing and directed by engineer in charge. with the 600 mm height MS angle covered stand. The switchboard (panel) shall have provision for future expansion & shall be modular in construction. The bus bars shall be connected with C type clamps without any drilling on the bus bars. SITC of the IP 65 Smart Section feeder panel with space for Smart Energy monitoring system and 2 number of 3 phase Energy meter of Supply Company for the Street Lighting Consisting of following Incoming : 100 Amp FP MCCB with the spreader link with in built earth fault relay R-Y-B-On-Off indicating Lamp with control fuse. Busbar : Set of 100 A. FP tinned copper busbars of EC. grade & adequate capacity, size & insulated with colour tape & should be tined at all joints.	no	725	1,42,500.00	10,33,12,500.00		

	Auto/Manual bypass switch with indicating lamp Meter : VAF meter equivalent to Enercon make ELF 3259 with 100/ 5 A Class 1 ct. Outgoing : MCB's Should be of 10 KA. Timer Equivalent to Theben make Astronomical type with the battery back up : 2 nos. 40 amp. FP Power Contactor : 2 nos. 6 - 32 amp. DP Power Contactor : 8 nos. 40 Amp. FP MCB : 4 nos. 6 -32 Amp. FP MCB : 2 nos. 6 - 32 amp. SP MCB : 18 nos. 5 KVAR Capacitor with the 40 amp TP capacitor duty contactor with the 10 minute time delay relay. Panel Should Have lockable Space to incorporate the 2 nos of the 3 phase energy meter with its main switches with separate cable entry with separate compartment & Separate door.						

15	**Section Feeder Panels Type-B** Supplying, unloading at site, shifting to site, assembling, leveling, grouting, erecting, Testing, & Commissioning double compartmentalized Street light control panel with IP 65 protection & Enclosure should be powder coated fabricated from 10 Gauge M.S. sheet & folded channel totally enclosed cubical type. with pad lock arrangement. The successful tenderer will have to prepare general arrangement with dimensions & get it approve through Architect/ Consultant. All civil work including RCC platform for street light panel should be in scope of Electrical contractor complete in all respect as per detail drawing and directed by engineer in charge. with the 600 mm height MS angle covered stand. The switchboard (panel) shall have provision for future expansion & shall be modular in construction. The bus bars shall be connected with C type clamps without any drilling on the bus bars. SITC of the IP 65 Smart Section feeder panel with space for Smart Energy monitoring system and 2 number of 3 phase Energy meter of Supply Company for the Street Lighting Consisting of following Incoming : 63 Amp FP MCB with the spreader link with in built earth fault relay R-Y-B-On-Off indicating Lamp with control fuse. Busbar :	no	725	80,750.00	5,85,43,750.00		

	Set of 63 A. FP tinned copper busbars of EC. grade & adequate capacity, size & insulated with colour tape & should be tined at all joints. Auto/Manual bypass switch with indicating lamp Meter : VAF meter equivalent to Enercon make ELF 3259 with 63/ 5 A Class 1 ct. Outgoing : MCB's Should be of 10 KA. Timer Equivalent to Theben make Astronomical type with the battery back up : 2 nos. 40 amp. FP Power Contactor : 2 nos. 6 - 32 amp. DP Power Contactor : 8 nos. 40 Amp. FP MCB : 2 nos. 6 -32 Amp. FP MCB : 2 nos. 6 - 32 amp. SP MCB : 12 nos. 5 KVAR Capacitor with the 40 amp TP capacitor duty contactor with the 10 minute time delay relay. Panel Should Have lockable Space to incorporate the 2 nos of the 3 phase energy meter with its main switches with separate cable entry with separate compartment & Separate door.						
	New Section Feeder Panel Work				**16,18,56,250.00**		

16	**Removing of Section Feeder Panel** Dismantling and removing of existing section feeder pillar as said location by engineer in charge complete in all respect as it is original with necessary civil work foundation, cable termination, with extra required various sizes cables & with cable joints if needed etc. as per requirement or as per instruction of engineer in charge.	Set	2,000.00	914.85	18,29,700.00		
17	**Installation of Section Feeder Panel** Installation Testing and Comissioning of New / existing section feeder pillar as said location by engineer in charge complete in all respect as it is original with necessary cable termination, with extra required various sizes cables & with cable joints if needed etc. as per requirement or as per instruction of engineer in charge.	Set	500.00	4,391.85	21,95,925.00		
18	**Upgradation of Section Feeder Panel** Upgradation of existing section feeder pillar Install MCB instead of Fuse as said location by engineer in charge complete in all respect as it is original with necessary cable termination, with extra required various sizes cables & with cable joints if needed etc. as per requirement or as per instruction of engineer in charge.	Set	2,000.00	2,850.00	57,00,000.00		
19	**MCB** SITC of the MCB's (10 KA) Timers , & Contactors With the Dinrail Channel providing and erecting Miniature circuit breaker single pole 0.5A to 2A system and having breaking capacity 10 KA to be erected in existing box. confirming to IS 8828/1996 with ISI Mark	no	14,225.00	254.60	36,21,685.00		

20	Miniature circuit breaker single pole suitable to operate on 240 V A.C. system and having breaking capacity 10 KA to be erected in existing box. confirming to IS 8828/1996 with ISI Mark 6 to 25 A SP MCB	no	6,000.00	105.45	6,32,700.00		
21	Providing & erecting 240 V MCB double pole switch for motor & inductive load (C Curve) having 10 KA breaking capacity & confirms to IS : 8828 in existing box having following capacity 6 to 32 A DP MCB	no	1,000.00	282.15	2,82,150.00		
22	Approved make ELCBs / RCCBs conforming to IS: 12640 and having sensitivity of 30 mA and Short Circuit withstand capacity of 6 KA and suitable for operation on single phase 240 V. having characteristic of quick action & tripping with all advance feature & do not incorporate any electronic component. for following Max. rating erected as directed 25 to 32A / 30mA/100 mA DP ELMCB	no	59	1,852.50	1,09,297.50		
23	40 A / 100 mA DP ELMCB	no	7	2,102.35	14,716.45		
24	Providing & erecting 415 V MCB three Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity (a) 6 to 32 Amp. Cat.III	no	103	495.90	51,077.70		
25	Providing & erecting 415 V MCB three Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity (b) 40 Amp. Cat.III	no	6	608.95	3,653.70		

26	Providing & erecting 415 V MCB Four Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity 63A FP MCB	no	500	693.50	3,46,750.00		
27	Providing & erecting 415 V MCB Four Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity 40A FP MCB	no	500	628.90	3,14,450.00		
28	Providing & erecting 415 V MCB Four Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity 6 to 32A FP MCB	no	150	560.50	84,075.00		
29	Supplying & erecting power contactor for time switch complete erected as per direction Cat III [B] 2 pole 250V 32 Amp.	no	1,000.00	1,771.75	17,71,750.00		
30	Supplying & erecting power contactor for time switch complete erected as per direction Cat III [D] 4 pole 440V 40 Amp.	no	1,000.00	2,617.25	26,17,250.00		
31	Supplying & erecting approved make Digital time switch having lithium cell 6 years operative and operate battery backup 1 channel day clock with 14 memory programme, suitable to operate on 240V + 5%, 16A with, floating contacts Minimum switching setup time 1 minimum & LCD display. Also comprised permanent ON/OFF switching. Programming switches & housed in fire proof thermoplastic enclosure & transparent cover erected as required with necessary connection erected as directed.	no	1,000.00	2,980.15	29,80,150.00		
	Upgradation Amount for Section Feeder Panel				**2,25,55,330.35**		

	Total	**74,91,12,100.35**		

SR NO.	DESCRIPTION	UNIT	QTY	ESTIMATED		Quoted Value	
				RATE	TOTAL	Discount Offered by Bidder	Evaluated Price in Rs. after Discount
1	AI Engine Infrastructure Platform						
	Supply, Installation, Testing, and Commissioning of the complete on- premises hardware and foundational software stack. This platform is designed as a high-availability cluster to provide the resilient and high- performance computational power required for all specified AI functionalities, including future-readiness for large-scale (70B+ parameter) AI models.						
1.1	Inference Servers (High Availability Pair): For real-time processing of all AI models. Each of the two servers to be equipped with 2x NVIDIA H100 80GB GPUs (NVLink), 1.5 TB DDR5 RAM, 32-64 core CPU (AMD EPYC/Intel Xeon), and 2 TB NVMe SSD.	Set	1	1,60,28,780.00	1,60,28,780.00	**Not to be filled by the Bidder.** **(Total Percentage of discount automatically derived based on column E from the Price Bid table)**	**Not to be filled by the Bidder.** **(Total cost shall be automatically calculated based on the discount offered by bidder from the Price bid table)**
1.2	AI Model Training Servers (High Availability Pair): A dedicated HA cluster for the periodic offline retraining of all AI models. Each of the two servers to be equipped with 2x NVIDIA H100 80GB GPUs (NVLink), 2 TB DDR5 RAM, 64- core CPU, and 8 TB NVMe SSD.	Set	1	2,07,35,460.00	2,07,35,460.00		
1.3	Database Servers (High Availability Pair): A High Availability (1+1) cluster for structured data storage. Each node to have a 32-core CPU, 512 GB RAM, and 4 TB SSD.	Set	1	93,74,790.00	93,74,790.00		
1.4	High-Speed NAS Storage: For storing historical logs, datasets, and AI model checkpoints. 50 TB high-performance SSD-based storage (RAID 10) with 10- 25 GbE uplinks.	Nos.	1	82,40,870.00	82,40,870.00		

1.5	Monitoring, Logging & Load Balancing Servers (HA Pair): A High Availability (1+1) cluster for system monitoring (Prometheus, Grafana), logging, and request distribution.	Set	1	74,69,717.00	74,69,717.00		
1.6	High-Speed Network Switches (HA Pair): A High Availability (1+1) pair of 25- 40 GbE Managed Switches with VLAN Support for low-latency connectivity.	Set	1	46,19,660.00	46,19,660.00		
1.7	Security Appliances (Firewall HA Cluster): A High Availability cluster of Next-Generation Firewalls with DDoS & SSL inspection to protect all system endpoints.	Set	1	78,81,656.00	78,81,656.00		
1.8	Core Platform & Virtualization Software Licenses: Includes all necessary OS, virtualization, and container platform licenses to operate the entire hardware cluster as a unified, resilient private cloud.	L.S.	1	2,17,04,460.00	2,17,04,460.00		
2	LMS AI Software Platform						
	Supply of all proprietary application software required to operate the AI Analytics and Optimization Engine. The software platform must grant the right to use the specified modules across the entire network of assets and support the high-availability hardware cluster.						
2.1	Core AI Engine Components						
	Foundational software components responsible for data processing, real- time analysis, and model deployment, forming the backend "brain" of the entire system.						
2.1.1	Data Ingestion & ETL Platform: Core component for scalable intake of telemetry from 207,000+ endpoints, performing data cleaning, transformation, and preparation for storage and analysis.	L.S.	1	2,81,94,480.00	2,81,94,480.00		

2.1.2	Real-time Stream Processing Engine: Core engine for analyzing data streams in motion, enabling immediate alerts and actions for dynamic control and fault detection.	L.S.	1	2,70,58,470.00	2,70,58,470.00		
2.1.3	AI Model Serving & Inference Engine: Core runtime engine responsible for deploying, managing, and serving predictions from all trained AI models with low latency.	L.S.	1	2,77,84,460.00	2,77,84,460.00		
2.2	AI Application Model Packs						
2.2.1	Predictive Failure AI Models Pack: The trained models (e.g., Gradient Boosting, LSTMs) for predicting failures in luminaires, drivers, and controllers.	L.S.	1	1,84,91,370.00	1,84,91,370.00		
2.2.2	Power Grid Anomaly & Theft Detection AI Models Pack: The trained models (e.g., Isolation Forests, Autoencoders) for identifying anomalies in power quality data.	L.S.	1	1,77,41,630.00	1,77,41,630.00		
2.2.3	Energy Forecasting AI Models Pack: The trained time-series models (e.g., ARIMA, Prophet) for predicting energy consumption.	L.S.	1	1,84,93,840.00	1,84,93,840.00		
2.2.4	Adaptive Lighting Data Fusion AI Models Pack: The trained models for fusing traffic, weather, and event data to create dynamic lighting profiles.	L.S.	1	1,78,30,056.00	1,78,30,056.00		
2.2.5	NLP & Sentiment Analysis AI Models Pack: The trained NLP models (e.g., BERT-based classifiers) for citizen feedback classification and analysis.	L.S.	1	1,88,83,017.00	1,88,83,017.00		
2.3	Application & Visualization Suites						
	The user-facing software components (dashboards, control panels, and reporting tools) that allow operators to interact with and manage the insights generated by the AI engines.						

2.3.1	Predictive Maintenance & Asset Health Suite: The dashboard for maintenance teams to visualize asset health scores, RUL estimates, and a map-based view of predicted faults.	L.S.	1	1,12,74,125.00	1,12,74,125.00		
2.3.2	Dynamic Lighting & Scene Management Suite: The control panel for lighting operators to create, manage, and deploy dynamic lighting profiles recommended by the AI.	L.S.	1	93,82,580.00	93,82,580.00		
2.3.3	Energy Analytics & Optimization Suite: The dashboard for energy managers to visualize consumption trends, forecasts, and potential savings identified by the analytics engine.	L.S.	1	88,32,644.00	88,32,644.00		
2.3.4	Citizen Service & Helpdesk Integration Suite: The interface for helpdesk teams to view and manage auto-classified and prioritized tickets generated by the NLP engine.	L.S.	1	81,54,990.00	81,54,990.00		
2.3.5	Geospatial Intelligence & Reporting Suite: The reporting tool for exporting aggregated data like traffic heatmaps and fault concentration maps for use in external GIS and urban planning software.	L.S.	1	91,92,960.00	91,92,960.00		
3.0	Professional & Operational Services						
3.1	One-Time Implementation & Setup Services						
	Covers all one-time professional services required to successfully deploy, configure, integrate the AI Engine, and train the initial models to ensure the system is ready for operation.						
3.1.1	Infrastructure Deployment & Integration: Covers the complete physical deployment, logical configuration of the HA cluster, and integration with existing city data sources.	L.S.	1	1,60,30,300.00	1,60,30,300.00		

3.1.2	Initial AI Model Training & Calibration: Covers the professional data science services for the first cycle of data ingestion, training, and calibration of all specified AI models to establish a baseline performance.	L.S.	1	2,81,64,460.00	2,81,64,460.00		
4.0	Yearly Operations & Management Services - After Successful Implementation						
	Covers all recurring services required to operate, maintain, and support the AI Engine platform annually. The quantity reflects a 5-year operational period.						
4.1	Annual Hardware Maintenance Contract (AMC): Comprehensive on-site support, spares, and maintenance for all hardware components listed in Section 14.	Per Year	5	57,00,000.00	2,85,00,000.00		
4.2	Annual Software Platform & Application Support: Covers updates, security patches, and technical support for all software listed in Section 14.8 and Section 15.	Per Year	5	57,00,000.00	2,85,00,000.00		
4.3	AI Model Monitoring, Retraining & Optimization Services: Professional data science services for continuous monitoring of model performance, periodic retraining with new data, and optimization of AI algorithms including Man Power.	Per Month	60	6,17,500.00	3,70,50,000.00		
4.4	Managed Security & Infrastructure Operations: 24/7 monitoring of the platform for security threats, performance bottlenecks, and operational management of the HA infrastructure including Man Power.	Per Month	60	3,80,000.00	2,28,00,000.00		
	Total (AI Work)				**5.00**		

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