

# **REQUEST FOR PROPOSAL FOR STREET LIGHT POLES UNDER “PROJECT JYOTI” SCHEME**

## **CONTENTS**

| <b>Sr.<br/>No</b> | <b>Volume<br/>/Chaptor</b> | <b>Content Title</b>                      | <b>Pages<br/>From – Up<br/>to</b> |
|-------------------|----------------------------|---|-----------------------------------|
| 1                 | VOL-I                      | Instruction to Bidder                     | 1-68                              |
| 2                 | VOL-II                     | Technical<br>Specification and<br>Drawing | 1-26                              |
| 3                 | VOL-III                    | General Condition of<br>Contract          | 1-32                              |
| 4                 | VOL-IV                     | Price Schedule                            | 1-1                               |

Technical drawing of a vertical pipe assembly. The drawing shows a vertical pipe with a horizontal section at the top. Dimensions are indicated: 1000 (horizontal distance), 1500 (vertical distance), 200 (vertical distance), and 3500 (vertical distance). Labels include: 42 mm OD PIPE, 1" OD PIPE,  $\phi 60.3 \times 3.25$  THK.,  $\phi 76.1 \times 3.25$  THK., BASE PLATE 275x275x12mm, FOR FOUNDATION REFER DWG. NO. TCE.10477A-EL-4026-GL-40004, and DETAILS "A".

Technical drawing of a bent metal part. The drawing shows two views of the part. The top view is a side elevation showing a horizontal section with a width of 564 and a total length of 771. The bottom view is a top-down perspective showing a curved section with a radius of R725.50 and a width of 579. The part is labeled with a radius of R732.

FILLET WELD

VIEW 1-1  
SCALE 1:20

|       |    |
|-------|----|
| ISSUE | P0 |
|-------|----|

REQUEST FOR PROPOSAL FOR  
IMPLEMENTATION OF  
**STREET LIGHT POLES**  
**UNDER**  
**“PROJECT JYOTI” SCHEME**  
ON  
DESIGN, BUILD AND OPERATE BASIS



Guwahati Smart City Limited,  
Guwahati, Assam

Tender Notice No.:- SPV/GSCL/DEV/68/2017/13

Dated: 16/02/2018

**Volume I: Instruction to BIDDERS**

## IMPORTANT KEY DATES

| S. No. | Activity  | Deadline   |
|--------|---|--|
| 1      | Release of RFP  | 17-02-2018 15:00 hr onwards  |
| 2      | Last date of receipt of queries on RFP  | 26-02-2018 Up to 16:00 hr  |
| 3      | Pre-Bid Meeting Date, Time & Venue  | 27.02.2018 from 11:00 hr at Office of The Guwahati Smart City Limited-Statfed Building, Bhangagarh, Guwahati-781005 (GMDA Conference Hall, 01 <sup>st</sup> Floor) |
| 4      | Posting of response to queries  | 03-03-2018 on website <a href="https://assamtenders.gov.in">https://assamtenders.gov.in</a> and <a href="http://gscl.assam.gov.in">gscl.assam.gov.in</a>           |
| 5      | Last date for online submission of Bids   | 23-03-2018 Up to 15:00 hr  |
| 6      | Last Date of Physical submission of Bid (Tender Fee, EMD, Technical Bid) in Hard Copy | 26-03-2018 Up to 11:00 hr  |
| 7      | Date of opening of Technical Bids   | 26-03-2018 at 15:00 hr   |
| 9      | Date of opening of Price Bids   | To be notified later to the qualified BIDDERS  |

## TABLE OF CONTENTS

|      |                                    |    |
|------|------------------------------------|----|
| 1.0  | Introduction                       | 6  |
| 2.0  | Request for Proposal (RFP)         | 6  |
| 3.0  | RFP Bid Data Sheet                 | 7  |
| 4.0  | Scope of Work                      | 10 |
| 5.0  | Instruction to Bidders             | 12 |
| 6.0  | Eligible Bidders                   | 14 |
| 7.0  | Joint Venture                      | 15 |
| 8.0  | Compliant Bids/Completeness of BID | 17 |
| 9.0  | Bidder to Inform                   | 17 |
| 10.0 | Bid Preparation Costs              | 18 |
| 11.0 | Pre-Bid Meeting & Clarification    | 18 |
| 12.0 | RFP Document Fee                   | 18 |
| 13.0 | Earnest Money Deposit (EMD)        | 19 |
| 14.0 | Bid Validity Period                | 20 |
| 15.0 | Contents of Bid                    | 20 |
| 16.0 | Technical Proposal                 | 22 |
| 17.0 | Bid Formats                        | 23 |
| 18.0 | Language                           | 24 |
| 19.0 | Authentication Of Bids             | 24 |
| 20.0 | Amendment of Request for Proposal  | 24 |
| 21.0 | Bid Price                          | 24 |
| 22.0 | Deviations & Exclusions            | 25 |
| 23.0 | Tax Liabilities                    | 25 |

|      |  |    |
|------|--|----|
| 24.0 | Total Responsibility                                       | 25 |
| 25.0 | Late Bids  | 25 |
| 26.0 | Right to Terminate the Process                             | 25 |
| 27.0 | Non-Conforming Bids  | 25 |
| 28.0 | Acceptance/Rejection of Bids                               | 26 |
| 29.0 | Confidentiality  | 26 |
| 30.0 | Disqualification   | 26 |
| 31.0 | Fraud & Corrupt Practices                                  | 27 |
| 32.0 | Conflict of Interests                                      | 28 |
| 33.0 | Right to vary quantity and Change of scope of work         | 28 |
| 34.0 | Withdrawal, Substitution & Modification of Bids            | 29 |
| 35.0 | Site Visit   | 29 |
| 36.0 | Selection Process for Bidder                               | 30 |
| 37.0 | Award of Contract  | 36 |
| 38.0 | Signing of Contract  | 36 |
| 39.0 | Performance Bank Guarantee (PBG)                           | 37 |
| 40.0 | Delivery Schedule  | 38 |
| 41.0 | Failure to Agree with Terms and Conditions of RFP document | 38 |
| 42.0 | Terms of Payment   | 39 |
| 43.0 | Retention Money  | 40 |
| 44.0 | Loss and Theft of Property                                 | 40 |
| 45.0 | Miscellaneous  | 40 |
| 46.0 | Annexure 1 – Template for Pre-Bid Queries                  | 42 |
| 47.0 | Annexure-2 Formats for submission of the pre-              | 43 |

|      |  |       |    |
|------|--|-------|----|
|      | qualification bid  |       |    |
| 48.0 | Bid Covering Letter  | ..... | 44 |
| 49.0 | Annexure 3 – Declaration of Non-Blacklisting   | ..... | 48 |
| 50.0 | Annexure 4 – No Deviation Certificate  | ..... | 49 |
| 51.0 | Annexure 5 – Total Responsibility Certificate  | ..... | 50 |
| 52.0 | Annexure 6 – Formats of Experience Certificate   | ..... | 51 |
| 53.0 | Annexure 7 – Anti-Collusion Certificate  | ..... | 55 |
| 54.0 | Annexure 8 – Performance Bank Guarantee  | ..... | 56 |
| 55.0 | Annexure 9 – Format for Power of Attorney to<br>Authorize signatory  | ..... | 58 |
| 56.0 | Annexure 10 – Format for Financial Bid   | ..... | 59 |
| 57.0 | Annexure 11 – Bank Guarantee for Earnest<br>Money Deposit  | ..... | 60 |
| 58.0 | Annexure 12 – Format of Line of Credit   | ..... | 62 |
| 59.0 | Annexure 13 – Format for Joint Venture<br>Agreement  | ..... | 63 |
| 60.0 | Annexure 14 – Format for Memorandum of<br>Understanding (MOU) with OEM (LED Smart<br>Street Lightning Luminaries & Centralized<br>Control Monitoring System-Street Light<br>Controllers) | ..... | 67 |

## **1.0 Introduction**

The Government of India has announced creation of 100 Smart cities to drive economic growth and improve the quality of life of people by enabling local development and harnessing technology as a means to create smart outcomes for citizens. Guwahati is one of the shortlisted cities for the smart city initiative under Ministry of Urban Development, Government of India. Guwahati Smart City Limited (GSCL) is a Govt. Company for implementing the Smart City mission at the city level. GSCL will plan, appraise, approve, release funds, implement, manage, operate, monitor and evaluate the Smart City development projects.

Guwahati is one of the fastest growing urban cities of India. Due to an increased pace of development in the past decade, the city has expanded in all directions along with its road network. Presently the coverage of street lights within Guwahati is low. As a Smart city initiative, GSCL is in process to improve the coverage by installing street light poles in all lanes and by-lanes of Guwahati. GSCL is planning to install street lighting poles under "Project Jyoti- Own Your Street Light" scheme.

"Project Jyoti – Own Your Street Light" is a Unique scheme launched by Govt. of Assam to help individual Plot Owners to Own a street light within their plot premises. Under this scheme the Govt. shall install a 5m light pole with LED luminaire (max up to 16 W), and other associated accessories like Power Cables/ Earthing Wires, Timer Switch, Earth Leakage Circuit Breaker (ELMCB), Junction Box (JB) etc. on the request of the Plot Owner and maintain it. The cost of the supply, installation and maintenance of the pole and accessories shall be borne by the Govt. The Plot Owner is required to pay the charges for monthly electrical consumption of that light and take care of the security of the pole.

GSCL intends to invite Request for Proposal for Design, Supply, Installation, Operation and Maintenance of Street poles and Luminaries with all fittings for period of One (1) year.

## **2.0 Contents of Request for Proposal**

**The Request for Proposal (RFP) consists of Volumes viz.**

- 2.1 RFP Volume 1: Instruction to BIDDERS
  - 2.1.1 Volume 1 details the instructions with respect to the bid process management, technical evaluation framework, and the technical & financial forms.
- 2.2 RFP Volume 2: Scope of work including Functional & Technical Specifications & Technical Drawings
  - 2.2.1 Volume 2 of the RFP provides information related to Scope of work for BIDDER, BIDDERS obligations, GSCL's Requirements, Specifications and Drawings
- 2.3 RFP Volume 3: General Conditions of Contract
  - 2.3.1 Volume 3 contains the contractual, legal terms & conditions applicable for the proposed engagement.
- 2.4 RFP Volume 4 : Price Bid BOQ
  - 2.4.1 Volume 4 contains Bill of Quantities; BIDDER has to quote his rates in the schedules.



### 3.0

### RFP Bid Data Sheet

**Table 1: BID Data Sheet**

| BID DATA SHEET |  |  |
|----------------|--|--|
| S.No.          | Item                                     | Description  |
| 1.             | Scope of Work                            | Design, Supply, installation, maintenance of Project Jyoti Light pole and luminaire with all fittings on Design, Build & Operate basis, with Operation & Maintenance period of 1 (One) Year.                   |
| 2.             | Method of Selection                      | <b>Technically Qualified Lowest Evaluated (L1) BIDDER</b>  |
| 3.             | Availability of RFP Documents            | Download from (gscl.assam.gov.in) & <a href="https://assamtenders.gov.in">https://assamtenders.gov.in</a><br>Online Tender Submission On <a href="https://assamtenders.gov.in">https://assamtenders.gov.in</a> |
| 4              | Employer/Authority                       | (Guwahati Smart City Limited)<br>Statfed Building, Bhangagarh, Guwahati-781005   |
| 5              | Officer inviting Bids / Bid Opening GSCL | Managing Director, Guwahati Smart City Limited   |
| 6              | Estimated Tender Amount                  | <b>Rs. 15.40 /- Cr</b><br>(Rupees Fifteen Crores Forty Lakhs only)*<br>(Estimated tender amount shall consist of Construction Cost plus Operation and Maintenance cost for One (1) year).                      |
| 7              | Period of Completion                     | 210 days from the date of Award of Contract  |
| 8              | Operation and Maintenance Period         | Period of 1 (One) year from the date of successful Commissioning of poles and issuing completion certification on installation from GSCL.  |
| 9              | Defects liability period                 | Total Contract Period (Construction period or Installation period plus Operation and Maintenance Period)   |

| BID DATA SHEET |   |  |
|----------------|---|--|
| S.No.          | Item  | Description  |
| 10             | Date of Issuance of RFP   | 17-02-2018 15:00 hr onwards  |
| 11             | Bid Document Fee (Non-refundable)   | <b>Rs.20,000/-</b> (Rupees Twenty Thousand only )<br>in form of Demand Draft / Bankers Cheque in favor of MD, GSCL payable at Guwahati   |
| 12             | Bid Security/Earnest Money Deposit (EMD)  | <b>Rs. 33,00,000 /-</b> (Rupees Thirty Three Lakhs only)<br>in form of Demand Draft in favor of MD, GSCL payable at Guwahati or by Bank Guarantee of Nationalized bank, having branch at Guwahati (as per format attached in Bid Document) |
| 13             | Last date and time for Submission of Pre-Bid Queries                                  | 26-02-2018 Up to 16:00 hr  |
| 14             | Pre-Bid Meeting Date, Time & Venue  | 27-02-2018 from 11:00 hr at Office of The Guwahati Smart City Limited- Statfed Building, Bhangagarh, Guwahati-781005 (GMDA Conference Hall, 01 <sup>st</sup> Floor)  |
| 15             | Posting of responses to queries (on website)  | 03-03-2018 on <a href="https://assamtenders.gov.in">https://assamtenders.gov.in</a> and <a href="https://gscl.assam.gov.in">gscl.assam.gov.in</a>  |
| 16             | Last Date and time for on line bid submission   | 23-03-2018 Up to 15:00 hr  |
| 17             | Last Date of Physical submission of Bid (Tender Fee, EMD, Technical Bid) in Hard Copy | 26-03-2018 Up to 11:00 hr  |
| 18             | Date of opening of Technical Bids   | 26-03-2018 at 15:00 hr   |
| 19             | Bid validity  | Bid must remain valid up to 180 (One Hundred & Eighty) days from the actual date of submission of the Bid.   |

| BID DATA SHEET |                                     |   |
|----------------|-------------------------------------|---|
| S.No.          | Item                                | Description   |
| 20             | Retention Money                     | 5 (%) percent of each Interim payment certificate will be deducted as retention amount and will be returned after successful completion, commissioning, testing of all works.             |
| 21             | Performance Security                | 10 (%) percent of Contract Amount in form of Bank guarantee valid up to completion of Operation and maintenance Period  |
| 22             | Currency                            | Currency in which the BIDDERS may quote the price and will receive payment is India National Rupees (INR) only.   |
| 23             | Name and Address for Correspondence | Office of The Guwahati Smart City Limited- Statfed Building, Bhangagarh, Guwahati-781005<br><a href="mailto:mdsmartguwahati@gmail.com">mdsmartguwahati@gmail.com</a><br>gscl.assam.gov.in |
| 24             | Joint Venture                       | Allowed. Maximum Two (2) Members in Joint Venture   |
| 25.            | Place of Arbitration                | Guwahati, Assam   |

#### **4.0 Scope of work**

The scope of work for this project under Project Jyoti Scheme shall include the following;

- 4.1 Execution of Design, manufacturing, inspection & testing at manufacturer's works in accordance with approved Quality Assurance Plan(QAP), packing, delivery to site; handling at site including unloading, shifting from point of unloading to store, storage and from store to the installation site, cleaning, assembly & touch up painting, transporting to the installation site; installation at individual site, testing & commissioning; of street light pole within the premises of the Consumer at various locations within the project boundary area consisting of 5 m GI swaged pole, LED light fitting, 24 hr time switch, ELMCB, earthing and cabling as specified.
- 4.2 Battery limit of the BIDDER starts from the outgoing of the consumer tariff meter till the street light pole including civil foundation, dressing on the wall/ column or lay the cable buried in HDPE pipe as required from the pole to the connection point.
- 4.3 All mounting and foundation supports and hardware with accessories for installations. All civil works associated with installations of the above equipment like excavation, concreting and back filling of soil for preparation of equipment foundation/ laying of HDPE pipe for cable laying; embedment, chipping, punching, making holes, openings in walls, etc. are included in the scope of works.
- 4.4 Any other equipment which are not specifically listed in this specification but are necessary to make the system complete and functional in all respect as per requirement and statute. All design shall comply with the project requirements as specified.
- 4.5 All SAFETY considerations in design and manufacturing for safe operation & maintenance and safe practices during installation at site shall be in the scope of the BIDDER. Cost towards accomplishing the same shall be included in the BID price and no extra claim shall be entertained later.
- 4.6 All design shall comply with the project requirements as specified.
- 4.7 BIDDER shall design the Light pole including the civil foundation with desired Output (Lux Level) and submit the same in the technical Proposal for evaluation purpose along with full technical specification, the Specified Test certificates & data sheets of the selected Luminaire and other components including pole, time switch, ELMCB, Junction Box, mounting arrangement, cabling and earthing arrangement, Civil Foundation etc.
- 4.8 BIDDER shall give a Proof of Concept for the pole as per the offered design at a desired site as decided by the GSCL to demonstrate the material offered, designed lux level and wattage consumed, Junction Box, earthing and support arrangement provided etc. All necessary measuring instruments

& arrangements shall be made by the BIDDER along with the latest valid calibration certificates of the Instruments from an Accredited Laboratory.

- 4.9 A detailed Approach & Methodology write up on Project Execution as well as Operation & Maintenance shall be submitted in the Technical Proposal and presented by the Nominated Team Leader during evaluation of BIDDERS.
- 4.10 Maintaining a ward wise Status Dashboard on the progress of the project and submission of periodic report on weekly basis to ULB.
- 4.11 All Liaison activities for obtaining required mandatory approvals/ NOCs from Statutory Authorities as applicable for drawings & documents, initiation of works, Load release, charging and commissioning of equipment and system etc. are within the scope of works.
- 4.12 Liaison with APDCL for connection to the light pole which needs to be tapped from the outgoing of the Consumer's Tariff meter.
- 4.13 Carry out joint Inspection, Testing, Commissioning and Performance demonstration of the each pole and submission of Field Test Reports, Commissioning Reports, Performance Reports and Work Completion Report of each Light Pole system with photograph for review & approval by GSCL after completion of each individual Job.
- 4.14 Submission of all "As Built" drawings, Data sheets, Calculations etc. after execution and commissioning of the equipment and systems as specified above.
- 4.15 Operation and maintenance of street light Poles for a tenure as specified in the RFP including setting up of call centre; maintaining service teams, spare parts and providing service 365 days as per the Service Level Benchmark specified. The same shall also include the following;
- (a) Appropriate up-keeping, maintenance, and operation of all components, and ensure smooth functioning of the light pole throughout the entire contract period.
  - (b) After completing life of equipment or any component thereof, the same equipments shall be replaced with new hardware of same or better specifications free of cost within the Contract period.
  - (c) During the guarantee period, if any hardware needs to be replaced, the same will be replaced with same or better OEM and with same or higher hardware free of cost.
- 4.16 Manning a control room from 8 AM to 8 PM, 365 days and Monitoring the entire system and reporting the same appropriately to the concerned GSCL
- 4.17 Maintaining a Dash board & records regarding the operational status/ history of each Light Pole, No of Complaints, resolution status, Preventive maintenance status and submission of periodic report on weekly basis to ULB.
- 4.18 **Total number of poles to be installed under this RFP is 10000 nos**

- 4.19 **The Work clearance shall be given for minimum 1000 nos. or more at a time as per the receipt of applications.**

**5.0 Instruction to BIDDERS**

- 5.1 The bidder/agency has to ensure that the general public/ tourist/ visitors are not hindered in any manner while survey, execution, operations and maintenance of the project.
- 5.2 All information supplied by bidders may be treated as contractually binding on the bidders on successful award of the assignment by GSCL on the basis of this RFP document.
- 5.3 No commitment of any kind, contractual or otherwise shall exist unless and until a formal written Agreement has been executed by or on behalf of GSCL. Any notification of Successful Bidder/agency status (including issue of a Letter of Acceptance) by GSCL shall not give rise to any enforceable rights by the Bidder/agency. GSCL may cancel this public procurement at any time prior to a formal written Agreement being executed by or on behalf of GSCL.
- 5.4 This RFP document supersedes and replaces any previous public documentation and communications, and Bidders/agencies should place no reliance on such communications.
- 5.5 If for any reason, any area in whole or part is not available for work, the agreed execution schedule shall be suitably modified. However, under no circumstances the Bidder/agency shall be entitled to any relaxation, whatsoever, on this ground and he shall re-organize his resources to suit the modified schedule.
- 5.6 It shall be deemed that by submitting a Bid, the Bidder has:
- 5.6.1 Made a complete and careful examination of this RFP Document and unconditionally and irrevocably accepted the terms thereof;
- 5.6.1.1 Received all relevant information requested from the GSCL;
- 5.6.1.2 All other matters that might affect the Bidder's performance under this RFP document;
- 5.6.1.3 Accepted the risk of inadequacy, error or mistake in the information provided in the RFP document furnished by or on behalf of the GSCL relating to any of the matters referred to in this RFP document;
- 5.6.1.4 Acknowledged and agreed that inadequacy, lack of completeness or incorrectness of information provided in this RFP Document or ignorance of any of the matters shall not be a basis for any claim for compensation, damages, extension of time for performance of its obligations, loss of profits etc
- 5.7 All the assets and Softwares along with its associated information shall become the property of GSCL after it is commissioned and approved.

- 5.8 While every effort has been made to provide comprehensive and accurate background information, requirements and envisaged solution(s) specifications, BIDDERS must form their own conclusions about the solution(s) needed to meet the GSCL's requirements. BIDDERS and recipients of this RFP may wish to consult their own legal advisers in relation to this RFP.
- 5.9 All information supplied by BIDDERS as part of their Bids in response to this RFP, may be treated as contractually binding on the BIDDERS, on successful award of the assignment by the GSCL on the basis of this RFP.
- 5.10 No commitment of any kind, contractual or otherwise shall exist unless and until a formal written contract has been executed by or on behalf of GSCL. Any notification of preferred BIDDER status by GSCL shall not give rise to any enforceable rights by the BIDDER. GSCL may cancel this public procurement at any time prior to a formal written contract being executed by or on behalf of GSCL.
- 5.11 Sealed Bids shall be received by the GSCL on the e-Procurement portal <https://assamtenders.gov.in> before the time and date specified in the schedule of the tender notice. In the event of the specified date for the submission of tender offers being declared a public holiday by the Government of Assam, the offers will be received up to the appointed time on the next working day. The GSCL may, at its discretion, extend this deadline for submission of offers by issuing addendum and uploading the same on e-procurement portal.
- 5.12 Facsimile offers and other offline mode offers will be rejected.
- 5.13 The BIDDERS must be registered with the E-tendering system provider for participating in the bidding process, BIDDERS are required to go through the procedure as specified in <https://assamtenders.gov.in> portal to upload the Bid document
- 5.14 The BIDDERS are required to upload their tender in <https://assamtenders.gov.in> portal only. GSCL shall not be held responsible for the delay, if any, in the non-receipt of the same.
- 5.15 Any revisions, clarifications, corrigenda, addenda, time extensions, etc. to this tender will be posted on <https://assamtenders.gov.in> website only. BIDDERS should regularly visit the website to keep themselves updated.
- 5.16 All the qualification information shall be submitted through prescribed forms and statements given in the Annexure of bid document, along with all supporting documents meeting the qualification criteria. BIDDER shall upload scan copies of such prescribed forms and supporting document as a part of submission.
- 5.17 If the Bid is submitted by a Consortium/Group of Firms/ Joint Venture, The Leading Firm/Partner/Joint Venture entity will be responsible to execute the contract and work order will be issued in name of Leading Company/ Firm/Partner / Joint Venture. A certified copy of the Joint Venture Agreement

in prescribed form as specified in RFP document shall be submitted along with the bid.

5.18 If the Bid is submitted by a Consortium/Group of Firms/ Joint Venture, the bid documents uploaded / submitted to GSCL shall be in name of Leading /Company / Firm/Partner / Joint Venture entity.

5.19 All registered companies under the company act 1956/2013, Limited Liabilities Partnership Firm under the LLP Act 2008, registered firms are allowed to participate in this Bid.

## **6.0 Eligible BIDDERS**

6.1 The BIDDER should be either sole BIDDER or Consortium or Joint Venture. The BIDDER / All member of Consortium/JV should be registered entity under Company Act 1956/2013 or Limited Liability Company Act - 2008. The BIDDER / Lead member in Consortium/ JV should have valid Tax registration certificates. BIDDER shall provide copy of registration certificate.

6.2 The BIDDER should have completed projects related to  
Urban & Rural street lighting / High mast lighting including erection of poles, luminaries, feeder pillars and cabling & earthing during last five financial years ( 100% of Project cost to be considered)

AND/OR

External cabling and earthing works related to Lighting in Building / township projects

AND/OR

Electrical transmission line works for APDCL including erection of poles, earthing and associated civil works.

Worth of amount not less than **Rs 3.00/- Cr** within last five financial years.

6.3 The BIDDER should have satisfactory installed and commissioned at least 800 Nos. or more street light poles with luminaries in last five (5) financial years.

6.4 The BIDDER should have Average Annual Turnover of minimum INR **Rs 4.86/- Cr** over the last five (5) financial years.

**Table 2: Price escalation**

| <b>Financial Year</b> | <b>Turnover/ Cost of Executed work/O&amp;M</b> | <b>Effective cost of executed work at previous completed financial year's price level</b> |
|-----------------------|--|---|
|                       |  |   |
| 2012-2013             | E  | 1.46 x E  |



|           |   |          |
|-----------|---|----------|
| 2013-2014 | D | 1.33 x D |
| 2014-2015 | C | 1.21 x C |
| 2015-2016 | B | 1.10 x B |
| 2016-2017 | A | 1.00 x A |

- 6.5 BIDDER / Lead BIDDER shall demonstrate, dedicated Line of Credit made available for this project, for the amount of **Rs 3.00/- Cr** as per the attached format.
- 6.6 The BIDDER should not have been **Black-Listed** by any State / Central Government Department or Central /State PSUs as on Bid submission date. The BIDDER should provide Legal Attorney certified letter of undertaking to this effect on the letter head, co-signed by Bidders' authorized signatory.
- 6.7 The BIDDER should provide incorporation certificates to GSCL to authenticate the entity of Firm/Company/LLP/Consortium/Joint Venture Entity.
- 6.8 The BIDDER shall have valid registration on the date of issue of tender in appropriate class of CPWD/ MES/ State PWD/ PSUs/ Railways/ Municipal Corporations and Development Authorities of Indian State valid in the State of Assam. The Bidder should have valid electrical license issued by appropriate authority.
- 7.0 Joint Venture**
- 7.1 Joint venture consortium of Maximum Two (2) firms/ members / companies, as partners shall be allowed for the works.
- 7.2 All the Members of the JV shall be jointly and severally responsible for this Contract. The Member of the JV holding highest stake shall be the Lead Partner. The JV shall comply with the following requirements:
- 7.3 A Joint Venture Agreement Must Be Submitted Along With The Documents In Which Minimum Share Of Lead Member Shall Have To Be 60% And Share Of Other Members, Individually Shall Not Be Less Than 15%.
- 7.4 All the members of the Joint Venture firms shall have to collectively satisfy all the criteria mentioned.
- 7.5 During the bidding stage the BIDDERS intending to form Joint ventures shall submit Joint venture agreement in prescribed form as specified in RFP document. In the event the Joint Venture is declared as the selected BIDDER and awarded the Project, the parties shall form a Company in name of JV and registered itself under Indian Companies Act, 1956. All the terms and conditions related to Joint venture shall be as per Tender document.
- 7.6 In case, the applicant/JV partner has achieved physical & financial performance for the criteria mentioned above in past, in joint venture with

other Contractor (other than present JV partner), the portion of the work (physically and financially) of the contractor included in their Joint Venture Agreement in original contract work shall only be considered for evaluation purpose.

- 7.7 The individual members who join in JV shall have to give an undertaking that they will maintain status-quo till the completion of the work, if the work is awarded to the JV Consortium, the same JV Consortium shall be maintained till the satisfactory completion of the work. This undertaking shall be submitted on Stamp paper of Rs. 100. Duly signed by authorized signatory, which shall be notarized.
- 7.8 In case of BIDDER participating as a Joint Venture, on his selection for award of contract, all the partners/members of the Joint Venture will have to sign the Contract with the GSCL and will be jointly and severally liable for performance of the contract. Award of Contract will be in the name of Joint Venture consortium which will be considered as "Legal Entity" as far as this Bid/ Contract is concerned.
- 7.9 The Bid, and in case of a successful Bid, the Form of Contract Agreement, shall be signed with the name of Joint Venture which will be legally binding on all the partners;
- 7.10 Lead partner shall be declared as Prime BIDDER authorized to be in charge; and this authorization shall be evidenced by submitting a Power of Attorney signed by legally authorized signatories of all the partners;
- 7.11 The member in charge shall be authorized to incur liabilities, receive payments and receive instructions for and on behalf of any or all partners of the Joint Venture and the entire execution of the contract including defect liability period;
- 7.12 All members of the Joint Venture shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms, and a relevant statement to this effect shall be included in the Authorization mentioned under (b) above as well as in the Bid Form and the Form of Contract Agreement (in case of a successful Bid); and,
- 7.13 A copy of the stamped and notarized agreement entered into by the Joint Venture partners shall be submitted with the Bid. Roles, responsibilities and financial stakes of all members of the Joint Venture consortium shall be clearly and unambiguously prescribed in the Joint Venture agreement. In case of non prescription, the JV agreement will be declared as invalid and the Bid will be treated as non responsive.
- 7.14 In case of Joint Venture financial strengths of each of the JV members individually shall not be less than Minimum Qualifying Criteria worked out in proportionate to their financial stakes in the JV i.e. Clause 6.4 shall be met by each JV members in proportionate of their financial stake in Joint Venture. Further either of the partners of Joint Venture shall fully meet the qualifying criteria as per clause 6.2 and Clause 6.3 mentioned above. Each JV member shall have required registration certificate, existence of company

as per tender requirement. Each member shall satisfy these requirements separately.

- 7.15 The contractors participating in the name and form of a Joint Venture consortium shall have to clearly and unambiguously define the role, responsibilities and financial stake of each of the partners, the lead partner shall also have to be defined. On award of contract to such a Joint Venture consortium, each of the members of the Joint Venture consortium shall have to sign the Contract. Each member of the JV shall be jointly and severally responsible for the performance of the contract.
- 7.16 An original notarized copy of the agreement as prescribed in Format entered into by the joint venture partners shall be submitted with the Bid. It should also distinctly show the financial participation of each member of the joint venture and the responsibility of each member as regards planning and execution of the work.
- 7.17 In case of conflict between the terms in contract agreement and the Joint Venture documents, the terms in the contract agreement shall prevail.
- 7.18 The JV partners shall also need to be registered anywhere in India.
- 7.19 The tender documents uploaded in the name of an individual applicant shall not be used by a Joint Venture. Joint venture shall have to upload the tender document in the name of JV only, if he wants to apply.

## **8.0 Compliant Bids/Completeness Of Bid**

- 8.1 BIDDERS are advised to study all instructions, forms, terms, requirements and other information in the RFP documents carefully. Submission of the Bid shall be deemed to have been done after careful study and examination of the RFP document with full understanding of its implications.
- 8.2 Failure to comply with the requirements of the RFP may render the Bid non-compliant and the Bid may be rejected. BIDDERS must:
- (a) Include all documentation specified in this RFP, in the Bid
  - (b) Follow the format of this RFP while developing the Bid and respond to each element in the order as set out in this RFP
  - (c) Comply with all requirements as set out within this RFP

## **9.0 BIDDER to Inform**

- 9.1 The BIDDER shall be deemed to have carefully examined the Terms & Conditions, Scope, Specifications, and Schedules of this RFP. If BIDDER has any doubts/clarifications as to the meaning of any portion of the conditions or the specifications he shall, before the last date for Submission of pre-Bid queries, set forth the particulars thereof and submit them to GSCL in writing in order that such doubt may be removed or clarifications are provided.

## **10.0 Bid Preparation costs**

- 10.1 The BIDDER shall bear all costs associated with the preparation and submission of its Bid and for their participation in the entire bidding process. The GSCL will not be responsible or in any way liable for such costs, regardless of the conduct or outcome of the Bidding Process.

## **11.0 Pre-Bid Meeting & Clarification**

### **11.1 Bidders' Queries**

- 11.1.1 Any clarification regarding the RFP document and any other item related to this project can be submitted to GSCL as per the submission mode and timelines mentioned in the Bid Data sheet. The Pre-Bid queries should be submitted in excel sheet format, along with name and details of the organization submitting the queries.
- 11.1.2 GSCL shall not be responsible for ensuring that the Bidders' queries have been received by them. Any requests for clarifications post the indicated date and time shall not be entertained by GSCL.
- 11.1.3 BIDDERS must submit their queries as per the format mentioned in – Annexure-I

### **11.2 Responses To Pre-Bid Queries and Issue of Corrigendum/Addendum**

- 11.2.1 GSCL will organize a Pre-Bid meeting and will respond to any request for clarification or modification of the bidding documents. GSCL shall formally respond to the pre-Bid queries after the Pre-Bid meeting. No further clarifications shall be entertained after the date and time of submission of queries.
- 11.2.2 GSCL shall endeavour to provide timely response to all queries. However, GSCL makes no representation or warranty as to the completeness or accuracy of any response made in good faith. GSCL does not undertake to answer all the queries that have been posed by the BIDDERS.
- 11.2.3 Any modifications of the RFP Documents, which may become necessary as a result of the pre-Bid meeting, shall be made by GSCL exclusively through a corrigendum/ addendum. Any such corrigendum/ addendum shall be deemed to be incorporated into this RFP. However, in case of any such amendment, the Bid submission date may be extended at the discretion of GSCL.
- 11.2.4 Any corrigendum/ addendum issued by GSCL, subsequent to issue of RFP, shall only be available / hosted on the website URL mentioned in the Bid Data sheet. Any such corrigendum/ addendum shall be deemed to be incorporated into this RFP.

## **12.0 RFP Document Fee**

- 12.1 RFP can be downloaded from the website URL mentioned in the Bid Data Sheet.
- 12.2 Tender Fee as specified in Bid Data sheet shall be paid in form of Demand Draft or Bankers Cheque. The tender fee shall be non-refundable. Without

the payment of tender fee the Bids will be taken as incomplete and non-responsive and shall not be considered.

**13.0 Earnest Money Deposit (EMD)**

- 13.1 EMD as specified in Bid Data sheet shall be paid in the form of Demand Draft / Bank Guarantee from a Nationalized bank, having branch at Guwahati. No exemption for submitting the EMD will be given to any BIDDER. Bid security in any other form will not be entertained.
- 13.2 The validity period of the Bank Guarantee shall not be less than 180 (One hundred eighty) days from the Bid Due Date, inclusive of a claim period of 60 (sixty) days, and may be extended as may be mutually agreed between the GSCL and the Contractor. Where a demand draft is provided, its validity shall not be less than 90 (Ninety days) from the Bid Due Date, for the purposes of encashment by the GSCL.
- 13.3 The Bid shall be summarily rejected if it is not accompanied by the Earnest Money Deposit (EMD).
- 13.4 The EMD of all unsuccessful BIDDERS would be returned without interest by GSCL no later than 60 (sixty) days from the date of issuance of Letter of Acceptance to the Successful bidder except in the case of the Successful bidder whose Bid Security shall be retained till it has provided a Performance Security under the Contract Agreement or within 30 days when the Bidding process is cancelled by GSCL.
- 13.5 The EMD amount of Successful BIDDER would be returned upon execution of Contract Agreement with GSCL after submission of Performance Bank Guarantee to GSCL as per the provisions there of.
- 13.6 In case Bid is submitted without the EMD then GSCL reserves the right to reject the Bid without providing opportunity for any further correspondence to the BIDDER concerned.
- 13.7 The EMD may be forfeited in any of the following circumstances:
- (a) If the BIDDER submits a non- responsive Bid
  - (b) If a BIDDER withdraws its Bid during the period of Bid validity or as extended by mutual consent of the respective BIDDER and GSCL.
  - (c) The BIDDER engages in any kind of corrupt, fraudulent, coercive, restrictive and undesirable practices as specified.
  - (d) In case of a successful BIDDER, if the BIDDER fails to sign and return the duplicate copy of the LOI/LOA fails to submit the performance bank guarantee and/or fails to sign the contract in accordance with this RFP within specified time period as mentioned in RFP/Corrigendum.
- 13.8 The decision of GSCL regarding the above forfeiture of the EMD shall be final and binding upon all the BIDDERS.

- 13.9 BIDDERS shall mention the Beneficiary account details for EMD refund as required for refund. BIDDER shall submit copy of cancelled cheque of the beneficiary account for EMD Refund.
- 13.10 In case of forfeiture of the EMD as prescribed above, the particular BIDDER shall not be allowed to participate in the rebidding process of the same project.
- 14.0 Bid Validity Period**
- 14.1 Bid shall remain valid for the time period mentioned in the Bid Data Sheet.
- 14.2 On completion of the validity period, unless the BIDDER withdraws his Bid in writing, it will be deemed to be valid until such time that the BIDDER formally (in writing) withdraws his/her Bid.
- 15.0 Contents of Bid**
- 15.1 The two Bids system shall be followed. Technical and Commercial Offers shall be uploaded separately through the e - Procurement portal.

**Table 3: List of Bid content**

| <b>Envelope set</b>           | <b>Name of document</b>  | <b>Content</b>  |
|-------------------------------|--|---|
| <b>One</b>                    | <b>RFP Document fee &amp; Bid Security/Earnest Money Deposit (EMD)</b> | RFP Document Fee<br>Bid Security/Earnest Money Deposit (EMD)<br>(To be submitted along with Physical submission and scan copy shall be uploaded during online submission) |
| <b>Two</b>                    | <b>Technical Bid</b>   | With all supporting documents required for meeting the qualification criteria as per formats given in Bid document<br>Technical Proposal                                  |
| <b>Three</b>                  | <b>Technical Bid</b>   | Envelop One + Envelop Two   |
| <b>No Physical Submission</b> | <b>Financial/Price Bid</b>   | To be submitted online through E-procurement Portal.  |

- 15.2 Please note that prices should not be indicated in the Technical Bid but should only be indicated in the Financial/Price Bid.
- 15.3 All the pages of the Bid must be sequentially numbered. The Bid documents must contain in the beginning of the document, a list of contents with page numbers. Any deficiency in the documentation may result in the rejection of the Bid.
- 15.4 The original Bid shall be prepared in indelible ink. It shall contain no interlineations or overwriting, except as necessary to correct errors made by the BIDDER itself. Any such corrections must be initialed by the person (or persons) who sign(s) the Bids.
- 15.5 All pages of the Bid shall be initialed and stamped by the person (or persons) who sign the Bid.
- 15.6 Power of attorney on signing the document in name of person who signs the documents should be submitted to GSCL
- 15.7 BIDDER shall submit technical Bid in hard copy which shall be properly bound and all pages shall sequentially numbered.

- 15.8 Failure to submit RFP document fee, Earnest money Deposit and technical bid ( i.e. Envelope one and Envelope Two in physical form ) would cause a Bid to be rejected
- 15.9 Failure to submit the Bid before the submission deadline specified in the Bid Data Sheet would cause a Bid to be rejected.
- 16.0 Technical Proposal :**
- 16.1 As a part of Technical proposal the BIDDER should submit following things as mentioned below for Evaluation of his technical proposal:
- 16.1.1 The Dialux design report for the Luminaire offered & installation drawing of the street light along with pole including its 3D view and full technical specification.
- 16.2 LM-79 & LM-80 test Report of the LED Luminaire offered from recognized NABL accredited Lab
- 16.3 IP-66 type test report from recognized NABL accredited Lab for the particular LED Luminaire offered
- 16.4 Technical Details & Data Sheets of the offered including LED Luminaire and other components like pole, time switch, ELMCB, Junction Box, cable & cable laying, earthing arrangement, Civil Foundation etc. offered for the project
- 16.5 A detailed Approach & Methodology write up on Project Execution, Project management and Operation & Maintenance during the contract period; deployment of resources, compliance to the Service Benchmarks; maintenance of Service team, spares, call centre set up, its operation, deployment of special tools to expedite implementation and reduce downtime during O&M, Predictive/ preventive maintenance, training and documentation, handing over procedure etc.
- 16.6 Details regarding the similar Projects executed.
- 16.7 Agreement with one or more Luminaire OEMs whose product is being offered by the BIDDER for the project.



## 17.0 Bid Formats

### 17.1 Pre-Qualification Bid Format

**Table 4- Bid content check list**

| S.No. | Heading  | Details   |
|-------|--|---|
| 1.    | Pre-qualification checklist                      | As per format provided in this document   |
| 2.    | Pre-qualification Bid Covering letter            | As per format provided in this document   |
| 3.    | About BIDDER                                     | As per format provided in this document.  |
| 4.    | Legal  | 1. Copy of Certification of Incorporation/<br>Registration Certificate<br>2.PAN card<br>3.Tax Registration Certificates |
| 5.    | Annual turnover and net worth                    | Details of annual turnover and net worth<br>with documentary evidence.  |
| 6.    | Line of Credit                                   | As per format provided in this document   |
| 7.    | Self-certificate for non- blacklisting<br>clause | As per format provided in this document.  |
| 8.    | Power of attorney                                | As per format provided in this document   |
| 9.    | Project experience                               | As per Qualification criteria prescribed  |
| 10.   | No deviation certificate                         | As per format provided in this document   |
| 11.   | Total responsibility certificate                 | As per format provided in this document   |
| 12.   | Anti-collusion certificate                       | As per format provided in this document   |
| 13.   | MoU with OEM                                     | As per format provided in this document   |

### 17.2 Financial/Price Bid Format

**BIDDER shall submit the Price Bid online through e-procurement portal website only.**

## **18.0 Language**

- 18.1 The Bid should be prepared and submitted by the BIDDERS in English language only. If any submitted supporting documents are in any language other than English, translation of the same in English language is to be provided (duly attested) by the BIDDER. For purposes of interpretation of the documents, the English translation shall govern.

## **19.0 Authentication of Bids**

- 19.1 An authorized representative (or representatives) of the BIDDER shall initial all pages of the pre-qualification, technical and Price Bids.
- 19.2 Bid should be accompanied by an authorization in the name of the signatory (or signatories) of the Bid. The authorization shall be in the form of a written power of attorney accompanying the Bid or in any other form demonstrating that the representative has been duly authorized to sign.

## **20.0 Amendment of Request for Proposal**

- 20.1 At any time prior to the due date for submission of Bid, GSCL may, for any reason, whether at its own initiative or in response to a clarification requested by prospective BIDDER(s), modify the RFP document by amendments. Such amendments shall be uploaded on the e-procurement portal website, through corrigendum/ addendum and shall form an integral part of RFP document. The relevant clauses of the RFP document shall be treated as amended accordingly.
- 20.2 It shall be the responsibility of the prospective BIDDER(s) to check the GSCL's website from time to time for any amendment in the RFP document. In case of failure to get the amendments, if any, GSCL shall not be responsible.
- 20.3 In order to allow prospective BIDDERS a reasonable time to take the amendment into account in preparing their Bids, GSCL, at its discretion, may extend the deadline for submission of Bids. Such extensions shall be uploaded on website of the GSCL.

## **21.0 Bid Price**

- 21.1 BIDDERS shall quote for the entire scope of contract on a "overall responsibility" basis such that the total Bid price covers BIDDER's all obligations mentioned in or to be reasonably inferred from the Bidding documents in respect of providing the product/services.
- 21.2 Prices quoted by the BIDDER shall remain firm during the entire contract period and not subject to variation on any account. A Bid submitted with an adjustable price quotation shall be treated as non-responsive and rejected.
- 21.3 Price quoted by BIDDER shall inclusive of all taxes like Goods and Service Tax (GST) VAT, sales tax, labor, construction cess, income tax, duties, etc., including such other taxes, duties, tolls, octroi, freshly levied taxes under any rules and no claim whatsoever in this context shall be entertained.

## **22.0 Deviations and Exclusions**

- 22.1 Bid shall be submitted strictly in accordance with the requirements and terms & conditions of the RFP. The BIDDER shall submit a No Deviation Certificate as per the format mentioned in Bid document. The Bids with deviation(s) are liable for rejection.

## **23.0 Tax Liabilities**

- 23.1 The successful BIDDER shall be responsible for all the necessary statutory taxes, statutory dues, local levies etc. to be paid to the Govt./ Statutory Bodies/ Authorities etc., for the services rendered by it. There will be no liability upon GSCL whatsoever on any account.
- 23.2 The Successful BIDDER shall indemnify GSCL from any claims that may arise from the statutory Authorities.
- 23.3 The successful BIDDER shall ensure enforcement of Applicable laws including labor laws, minimum wages laws etc. and at no point should draw GSCL into any kind of litigation on these grounds.

## **24.0 Total Responsibility**

- 24.1 BIDDER should issue a statement undertaking total responsibility for the defect free operation of the proposed solution as per the format mentioned in Bid document.

## **25.0 Late Bids**

- 25.1 Late submission will not be entertained and will not be permitted by the e-Procurement Portal.
- 25.2 The Bids submitted by telex/telegram/fax/e-mail etc. shall not be considered. No correspondence will be entertained on this matter.
- 25.3 GSCL shall not be responsible for any non-receipt/non-delivery of the documents due to technical snag whatsoever at BIDDER's end. No further correspondence on the subject will be entertained.
- 25.4 GSCL reserves the right to modify and amend any of the above-stipulated condition/criterion.

## **26.0 Right to Terminate the Process**

- 26.1 GSCL may terminate the RFP process at any time and without assigning any reason. GSCL makes no commitments, express or implied, that this process will result in a business transaction with anyone. This RFP does not constitute an offer by GSCL.

## **27.0 Non-Conforming bids**

- 27.1 A Bid may be construed as a non-conforming Bids and ineligible for consideration;
- (a) If it does not comply with the requirements of this RFP
  - (b) If a Bid does not follow the format requested in this RFP or does not appear to address the particular requirements of the solution.

## **28.0 Acceptance/Rejection of Bids**

- 28.1 GSCL reserves the right to reject in full or part, any or all Bids without assigning any reason thereof. GSCL reserves the right to assess the BIDDER's capabilities and capacity. The decision of GSCL shall be final and binding.
- 28.2 Bid should be free of over writing. All erasures, correction or addition must be clearly written both in words and figures and attested.
- 28.3 In the event of any assumptions, presumptions, key points of discussion, recommendation or any points of similar nature submitted along with the Bid, GSCL reserves the right to reject the Bid and forfeit the EMD.
- 28.4 If there is any discrepancy in the Price Bid, it will be dealt as per the following:
- 28.5 If, in the price structure quoted for the required goods/services/works, there is discrepancy between the unit price and total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly.
- 28.6 If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected.
- 28.7 If there is a discrepancy between words and figures, the amount in words shall prevail.
- 28.8 If there is such discrepancy in an offer, the same shall be conveyed to the BIDDER with target date up to which the BIDDER has to send his acceptance on the above lines and if the BIDDER does not agree to the decision of GSCL, the Bid is liable to be disqualified.

## **29.0 Confidentiality**

- 29.1 All the material/information shared with the BIDDER during the course of this procurement process as well as the subsequent resulting engagement following this process with the successful BIDDER, shall be treated as confidential and should not be disclosed in any manner to any unauthorized person under any circumstances. The employees of the successful lead BIDDER and consortium members who are proposed to be deployed on the project need to furnish a Non-Disclosure Agreement (NDA) as given in Bid document.

## **30.0 Disqualification**

- 30.1 The Bid is liable to be disqualified in the following cases or in case BIDDER fails to meet the Bidding requirements as indicated in this RFP:
- 30.2 During validity of the Bid, or its extended period, if any, the BIDDER changes its quoted prices
- (a) The BIDDER's Bid is conditional and has deviations from the terms and conditions of RFP
  - (b) Bid is received in incomplete form

- (c) Bid is not accompanied by all the requisite documents
- (d) Information submitted in technical Bid is found to be misrepresented, incorrect or false, accidentally, unwittingly or otherwise, at any time during the processing of the contract (no matter at what stage) or during the tenure of the contract including the extension period if any Price Bid is enclosed with the same document of technical Bid.
- (e) BIDDER tries to influence the Bid evaluation process by unlawful/corrupt/fraudulent means at any point of time during the Bid process
- (f) In case any one party submits multiple Bids or if common interests are found in two or more BIDDERS, the BIDDERS are likely to be disqualified, unless additional Bids/BIDDERS are withdrawn upon notice immediately.
- (g) non submission of duly signed copy of tender documents (all volumes)

### **31.0 Fraud and Corrupt Practices**

- 31.1 The BIDDERS and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this RFP, GSCL shall reject a Bid without being liable in any manner whatsoever to the BIDDER, if it determines that the BIDDER has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the "Prohibited Practices") in the selection process. In such an event, GSCL shall, without prejudice to its any other rights or remedies, forfeit and appropriate the EMD or PBG, as the case may be, as mutually agreed genuine pre-estimated compensation and damages payable to GSCL for, inter alia, time, cost and effort of GSCL, in regard to the RFP, including consideration and evaluation of such BIDDER's Bid.
- 31.2 Without prejudice to the rights of GSCL under clause above and the rights and remedies which GSCL may have under the LOI or the Agreement, if a BIDDER is found by GSCL to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the selection process, or after the issue of the LOI or the execution of the agreement, such BIDDER shall not be eligible to participate in any tender or RFP issued by GSCL during a period of 3 years from the date such BIDDER is found by GSCL to have directly or through an agent, engaged or indulged in any prohibited practices.
- 31.3 For the purposes of this section, the following terms shall have the meaning hereinafter respectively assigned to them:
- 31.4 "Corrupt practice" means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the selection process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever,

directly or indirectly, any official of GSCL who is or has been associated in any manner, directly or indirectly with the selection process or the LOI or has dealt with matters concerning the agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of GSCL, shall be deemed to constitute influencing the actions of a person connected with the selection process); or (ii) save as provided herein, engaging in any manner whatsoever, whether during the selection process or after the issue of the LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the project or the award or the agreement, who at any time has been or is a legal, financial or technical consultant/adviser of GSCL in relation to any matter concerning the project;

31.5 “Fraudulent practice” means a misrepresentation or omission of facts or disclosure of incomplete facts, in order to influence the selection process;

31.6 “Coercive practice” means impairing or harming or threatening to impair or harm, directly or indirectly, any persons or property to influence any person’s participation or action in the selection process;

31.7 “Undesirable practice” means (i) establishing contact with any person connected with or employed or engaged by GSCL with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the selection process; or (ii) having a Conflict of Interest; and

31.8 “Restrictive practice” means forming a cartel or arriving at any understanding or arrangement among BIDDERS with the objective of restricting or manipulating a full and fair competition in the selection process.

### **32.0 Conflict of Interests**

32.1 A BIDDER shall not have a conflict of interest that may affect the selection process or the solution delivery (the “Conflict of Interest”). Any BIDDER found to have a conflict of Interest shall be disqualified. In the event of disqualification, GSCL shall forfeit and appropriate the EMD, if available, as mutually agreed genuine pre-estimated compensation and damages payable to GSCL for, inter alia, the time, cost and effort of GSCL including consideration of such BIDDER’s Bid, without prejudice to any other right or remedy that may be available to GSCL hereunder or otherwise.

32.2 GSCL requires that the BIDDER provides solutions which at all times hold GSCL’s interests paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work. The BIDDER shall not accept or engage in any assignment that would be in conflict with its prior or current obligations to other clients, or that may place it in a position of not being able to carry out the assignment in the best interests of GSCL.

### **33.0 Right to vary quantity and Change of scope of work**

33.1 BIDDER to note that the GSCL has the right to vary the quantity as mentioned in the Price Bid BOQ (Bill of Quantity). Nothing extra shall be paid

for increase / decrease in the quantities as mentioned in the Price Bid BOQ (Bill of Quantity). Rate quoted shall be for completing the item in all respect and as per tender requirement. BIDDER to note that actual executed quantity shall be paid as per terms and conditions of Bid document.

33.2 If the GSCL does not procure less than the quantity specified in the Bidding documents due to change in circumstances, the BIDDER shall not be entitled for any claim or compensation except otherwise provided in the Bid document.

33.3 The GSCL reserves right to decrease or omit any work from the scope of project. It is in BIDDER's obligation to execute the work as instructed by the GSCL and will not be compensated for such decrease or omission in scope of tendered works. The payment for change of scope and extra item shall be made as per the schedule of rates (SOR) as approved by GSCL and for non SOR items the rates will be paid as per market rate as approved by GSCL. No Change of Scope shall be executed unless the GSCL has issued the Change of Scope Order.

#### **34.0 Withdrawal, Substitution, and Modification of Bids**

34.1 A BIDDER may withdraw its Bid or re-submit its Bid (technical and/ or Price) as per the instructions/ procedure mentioned at e-Procurement website

34.2 Bids withdrawn shall not be opened and processed further.

#### **35.0 Site Visit**

35.1 The BIDDER shall visit the site and examine the site or sites for availability of required area, accessibility of the sites and obtain for itself, at its own responsibility and risk, all information that may be necessary for preparing the Bid and entering into the contract for design & construction of the works. The costs of visiting the site or sites shall be at the BIDDER's own expense.

35.2 The GSCL may arrange for the BIDDER and any of its personnel or agents to gain access to the relevant site or sites, provided that the BIDDER gives the GSCL adequate notice of a proposed visit of at least four (04) days. Alternatively, the GSCL may organize a site visit or visits concurrently with the Pre-Bid meeting, as specified in the RFP. Failure of a BIDDER to make a site visit will not be a cause for its disqualification. No site visits shall be

arranged or scheduled after the deadline for the submission of the Bids and prior to the award of Contract.

**36.0 Selection Process for BIDDER**

**36.1 Opening of Bids**

36.2 The Bids shall be opened by GSCL in presence of those BIDDERS or their representatives who may be present at the time of opening.

36.3 The representatives of the BIDDERS should be advised to carry the identity card or a letter to GSCL from the BIDDER firms to identify that they are bona fide representatives of the BIDDER firm, for attending the opening of Bid.

36.4 There will be three Bid-opening events (1) RFP Document fee & Bid Security/EMD, (2) Technical Bid, (3) Commercial Bid.

36.5 The date and time for opening of Technical shall be as per Bid Data Sheet & opening of Price Bid would be communicated to the qualified BIDDERS.

**36.6 Preliminary Examination of Bids**

36.7 GSCL shall examine the Bids to determine whether they are complete, whether the documents have been properly signed and whether the Bids are generally in order. Any Bids found to be nonresponsive for any reason or not meeting any criteria specified in the RFP, shall be rejected by GSCL and shall not be included for further consideration.

36.8 Initial Bid scrutiny shall be held and Bids will be treated as non-responsive, if Bids are:

- (a) Not submitted in format as specified in the RFP document
- (b) Received without the letter of authorization (Power of Attorney)
- (c) Found with suppression of details
- (d) With incomplete information, subjective, conditional offers and partial offers submitted
- (e) Submitted without the documents requested
- (f) Non-compliant to any of the clauses mentioned in the RFP
- (g) With lesser validity period
- (h) Without bid security/EMD
- (i) non submission of duly signed copy of tender documents (all volumes)



- 36.9 Clarification on Bids
- 36.10 During the Bid evaluation, GSCL may, at its discretion, ask the BIDDER for any clarification(s) of its Bid. 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.
- 36.11 The BIDDERS shall have to give detailed rate analysis in justification of the prices as may be required by the GSCL as a part of the evaluation process, if so desired by the GSCL.
- 36.12 Evaluation Process
- 36.13 GSCL shall constitute a tender evaluation committee to evaluate the responses of the BIDDERS. The tender evaluation committee shall evaluate the responses to the RFP and all supporting documents/documentary evidence. Inability to submit requisite supporting documents/documentary evidence by BIDDERS may lead to rejection of their Bids.
- 36.14 The decision of the tender evaluation committee in the evaluation of Bids shall be final. No correspondence will be entertained outside the process of evaluation with the Committee. The tender evaluation committee may ask for meetings or presentation with the BIDDERS to seek clarifications or confirmations on their Bids.
- 36.15 The Tender Evaluation Committee reserves the right to reject any or all Bids. Each of the responses shall be evaluated as per the criteria and requirements specified in this RFP.
- 36.16 The steps for evaluation are as follows:
- 36.16.1 Stage 1: Pre-Qualification
- GSCL shall validate the Set 1 “RFP Document fee & Bid Security/Earnest Money Deposit (EMD)”. Technical and Price Bids for those BIDDERS who don’t pre-qualify will not be opened. Price Bid will not be opened for those BIDDERS, who don’t qualify the technical evaluation. Bid Security amount shall be returned for those who don’t qualify the financial evaluation stage and after PBG is submitted by successful BIDDER.
- 36.16.2 Stage 2: Technical Evaluation
- 36.16.2.1 Set 2 “Technical Bid” will be evaluated only for the BIDDERS who succeed in Stage 1.
- 36.16.2.2 Criterion of evaluation of technical Bids
- (a) GSCL will review the technical Bids of the short-listed BIDDERS to determine whether the technical Bids are substantially responsive. Bids that are not substantially responsive are liable to be disqualified at GSCL’s discretion.
  - (b) The BIDDER’s technical solutions proposed in the Bid document shall be evaluated as per the requirements specified in the RFP and technical evaluation framework as mentioned

- (c) BIDDER shall be invited for presentation on overall understanding of proposed project, offered product and solution, Approach & Methodology for execution and O&M during the contract tenure, Project Team Structure, Project Financing including suggested work break down structure on assignment with timeline.

**Table 5 – Evaluation Criteria**

| S. No. | Evaluation criteria details  | Max marks allotted | Supporting documents required  |
|--------|--|--------------------|--|
| 1.     | <p><b>Experience :</b></p> <p>The BIDDER should have completed projects related to</p> <p>i. Urban &amp; Rural street lighting / High mast lighting including erection of poles, luminaries, feeder pillars and cabling &amp; earthing during last five financial years</p> <p>AND/ OR</p> <p>ii. External cabling and earthing works including Street poles related to Building / township projects</p> <p>AND/OR</p> <p>iii. Electrical transmission line works for APDCL including erection of poles, earthing and associated civil works.</p> <p>Worth of amount not less than Rs 3.00/- Crore within last five financial years.</p> <p>.Note: 100% of the project cost for criteria (i), 10% of the Project cost for Criteria (ii) and 40% of the Project cost for Criteria (iii) shall be considered for evaluation.</p> | 10                 | Completion certificate, work order for ongoing contract as per attached format duly certified by the competent GSCL  |
| 2.     | <p><b>No. Of Lighting poles:</b></p> <p>have installed and commissioned nos. Of lighting poles with luminaries in last five financial years</p>  | 15                 | Completion certificate, work order for ongoing contracts as per attached format duly certified by the competent GSCL |

| S. No. | Evaluation criteria details  | Max marks allotted | Supporting documents required  |
|--------|--|--------------------|--|
|        | <p>o 1000 Nos. – 8 marks</p> <p>d up to 3000 nos. – 10 marks</p> <p>d more. – 15 marks</p>   |                    |  |
| 3.     | <p><b>Financial strength:</b></p> <p>The BIDDER should have average annual turnover of minimum INR over the last three financial year</p> <p>Min 30 percent of tender amount – 8 marks</p> <p>From 30% to 60 % of tender amount – 10 marks</p> <p>Above 60 % of tender amount – 15 marks</p>   | 15                 | <p>Audited financial statements for the last three financial years</p> <p>Certificate from the statutory auditor on turnover details over the last three (3) financial years</p> |
| 4.     | <p><b>Project team Structure:</b></p> <p>Project Manager – 1 No.</p> <p>Qualification – B.E / M.E (Electrical )/ MBA</p> <p>Experience – experience in management of electrical project/other similar kind of project in public sector at least 15 years</p> <p>Project Manager to be available during construction period as well as operation and maintenance period.</p> <p>Marks allotted – 4 marks</p> <p>Site Engineer – 2 Nos.</p> <p>Qualification – D.E/ B.E (electrical )</p> <p>Experience – experience in management of electrical project/other similar kind of project in public sector at least 8 years</p> <p>Marks allotted – 2 marks</p> | 10                 | <p>Documentary evidence of qualification and experience records shall be provided.</p> <p>Individual undertaking from each person shall be submitted.</p>                        |

| S. No. | Evaluation criteria details   | Max marks allotted | Supporting documents required |
|--------|---|--------------------|-------------------------------|
|        | <p>Site Supervisors – 4 Nos.</p> <p>Qualification – D.E / B.E (electrical )</p> <p>Experience – experience in management of electrical project/other similar kind of project in public sector at least 05 years</p> <p>Site supervisors to be available during construction period as well as operation and maintenance period</p> <p>Marks allotted – 4 marks</p>  |                    |                               |
| 5.     | <p><b>Submission of Technical Proposal :</b><br/> <b>Technical proposal shall include</b></p> <p>Actual design with Dialux design report &amp; drawing of the street light pole with all accessories</p> <p>3D view of the proposed light pole with all accessories</p> <p>Submission of LM-79 &amp; LM-80 test report from recognized NABL accredited lab for led as well as luminaire</p> <p>Submission of IP-66 report from recognized NABL accredited lab</p> <p>Data sheets of luminaire and the led as specified in the requirement of technical specification</p> <p>Brief note on maintenance procedure during O&amp;M period with respect to the service level benchmark</p> | 15                 |                               |
| 6.     | <p><b>Presentation on project:</b></p> <p>BIDDER will be asked to give presentation on the following;</p> <p>The BIDDER shall brief about his organizational structure; past experiences in the field related to the project and its financial strength.</p>  | 15                 |                               |

| S. No. | Evaluation criteria details   | Max marks allotted | Supporting documents required |
|--------|---|--------------------|-------------------------------|
|        | <p>The BIDDER shall demonstrate the design and offered product and its relevance to the project.</p> <p>The BIDDER shall demonstrate capacity &amp; capability; approach and methodology for execution of the project from planning to commissioning and O&amp;M thereafter, for the required number of street lights as per the RFP.</p> |                    |                               |
| 7.     | <p><b>Proof Of Concept (PoC) for the proposed Lighting Pole</b></p> <p>The qualified BIDDER shall demonstrate its proposed solution in line with all the above at a place and time as decided by the ULB.</p>   | 20                 |                               |

Note: It is mandatory for the BIDDER to comply with all the criteria for Technical Evaluation. BIDDERS not complying to this requirement is liable to be rejected.

36.16.3 **BIDDERS with an Overall Technical score of 70 marks** or more in the Technical Evaluation Framework as mentioned above will qualify for commercial evaluation stage. Failing to secure minimum marks shall lead to technical rejection of the Bid.

36.16.4 The proposal review committee may undertake oral clarifications with the BIDDERS.

36.16.5 Stage 3: Price Bid Evaluation

- (a) All the technically qualified BIDDERS will be notified to participate in Price Bid opening process.
- (b) The Price Bids for the technically qualified BIDDERS shall then be opened on notified date and time and reviewed to determine whether the Price Bids are substantially responsive. Bids that are not substantially responsive are liable to be disqualified at GSCL's discretion.
- (c) Price Bids that are not as per the format shall be liable for rejection.
- (d) The Bid price shall include all taxes & duties and shall be in Indian Rupees.
- (e) After evaluation of the price analyses, the GSCL may require that the amount of the performance security be increased at the expense of the

successful BIDDER to a level sufficient to protect the GSCL against financial loss in the event of default of the successful BIDDER under the contract. The amount of the increased performance security shall be decided at the sole discretion of the GSCL, which shall be final, binding and conclusive on the BIDDER.

**36.17      Total Bid Evaluation**

36.17.1      The selection criteria shall be based on Technically Qualified Lowest Evaluated (L1) BIDDER.

**37.0      Notification Of Award/ Award of Contract**

37.1      GSCL will notify the successful BIDDER in writing by e-mail followed by courier to be confirmed by the BIDDER in writing by email followed by courier.

**38.0      Signing Of Contract**

38.1      After the notification of award, GSCL will issue Letter of Intend (LOI). Accordingly, a contract shall be signed between successful BIDDER and GSCL. As an acceptance of the LOI, the BIDDER shall sign and return back a duplicate copy of the LOI to GSCL. The BIDDER shall return the duplicate copy of the LOI along with a performance bank guarantee within fifteen (15) working days from the date of issuance of LOI.

38.2      Issue of LOI shall not be construed as any right given in favor of the Successful BIDDER, and GSCL reserves the right to annul the process of award, including signing of contract, of this project without any liability or obligation for such annulment, and without assigning any reason there to.

38.3      On receipt of the Performance Bank Guarantee, within five working days, GSCL or the agency designated by GSCL shall execute a Contract Agreement with the Successful BIDDER within next fifteen (15) days. Date of signing the Contract Agreement shall be deemed as the date of Commencement of work.

38.4      Failure of Successful BIDDER to sign the Contract Agreement will be cause of forfeiture of performance security by GSCL and GSCL reserves the right to Award the work to next best value BIDDER or call for new bids.

38.5      Notwithstanding to the contrary mentioned above, GSCL at its sole discretion shall have the right to extend the timelines for execution of Agreement on the request

38.6      The Successful BIDDER should intimate the list of team member to GSCL to handle the work order. The successful BIDDER should ensure that he fully familiarizes with the terms and conditions of the tender, scope of work and the guidelines.

**39.0 Performance Bank Guarantee (PBG)**

- 39.1 Within fifteen (15) working days from the date of issuance of LOI, the successful BIDDER shall at his own expense submit unconditional and irrevocable Performance Bank Guarantee (PBG) to the GSCL. The PBG shall be from a nationalized bank having branch at Guwahati in the format prescribed in tender document payable on demand at Guwahati, for the due performance and fulfillment of the contract by the BIDDER.
- 39.2 This Performance Bank Guarantee shall be for an amount equivalent to 10% of total contract value valid up to the end of defect liability period.
- 39.3 If the qualified BIDDER fails to furnish the performance bank guarantee (PBG) within the above said period, the EMD remitted by him will be forfeited to GSCL and his tender will be held void.
- 39.4 PBG shall be invoked by GSCL under following conditions;
- (a) In the event the BIDDER fails to perform the responsibilities and obligations as set out in the RFP to the complete satisfaction of GSCL.
  - (b) If GSCL incurs any loss due to the negligence of the Contractor in carrying out the project implementation as per the agreed terms and conditions.
  - (c) If information of documents furnished by BIDDER turns out to be misleading or untrue in any material respect, PBG shall be invoked by GSCL.
- 39.5 The PBG furnished by the Successful BIDDER in respect of his tender will be returned to BIDDER at the end of the contract period subject to satisfaction to the GSCL regarding performance and meeting all the following conditions;
- (a) After successful completion of the project including implementation and O&M of all the services for the duration of the contract period
  - (b) Payment of all the penalties throughout the implementation, operation and maintenance period
  - (c) Payment of all fees as per agreement along with penalties, if any
  - (d) Successful handing over of all the assets and services including all hardware & software in working conditions at the end of service or contract period
  - (e) On production of clearance certificate on all the above
- 39.6 In case the project is delayed /extended beyond the period of completion as mentioned in tender document, the performance bank guarantee shall be accordingly extended by the BIDDER till completion of scope of work.
- 39.7 In the case of estimated number of pole installed during the contract period has been upgraded to higher number worked out by GSCL, in this case the BIDDER shall within ten (10) days thereafter, shall submit additional performance bank guarantee of nationalized bank payable at Guwahati to GSCL at his own cost.

- 39.8 In case of bank guarantee of any nationalized bank is furnished by the Successful BIDDER to GSCL, as part of the security deposit and the bank goes into liquidation or, for any reason is unable to make payment against the said performance bank guarantee, the loss caused thereby shall fall on the BIDDER and the BIDDER shall forthwith, on demand, furnish additional security to GSCL to make good the deficit.
- 39.9 The liability or obligation of the bank under the bank guarantee shall not be affected or suspended by any dispute between the GSCL and the BIDDER, and the payment, under the bank guarantee by the bank to GSCL shall not wait till disputes are decided. The bank shall pay the amount under the guarantee, without any demur, merely on a demand from GSCL stating that the amount claimed is required to meet the recoveries due or likely to be due from the BIDDER. The demand, so made, shall be conclusive as regards to amount due and payable by the bank, under the guarantee limited to the amount specified in the bank guarantee.
- 39.10 The guarantee will not be discharged due to the change in the constitution of the bank or the BIDDER. Bank's liability shall stand automatically discharged unless a claim in writing is lodged with the bank within the period stated in the performance bank guarantee including the extended period.
- 39.11 In case the date of expiry of the Bank Guarantee is a holiday, it will be deemed to expire on the close of the next working day.

#### **40.0 Delivery Schedule**

The entire number of poles shall be installed and commissioned within Seven (7) months from the date of Award of Contract. However, each pole shall be completed within twenty (20) days from the date of technical approval of the application and site report. O&M period shall initiate after completion of first 2000 nos. of poles. Till such time the maintenance of such poles shall be Bidder's responsibility.

#### **41.0 Failure to Agree with the Terms and Conditions of the RFP document**

- 41.1 The performance of bidder will be continuously reviewed by GSCL to maintain the terms & conditions as specified in this RFP document. Based on the review, if the bidder fails to satisfy / maintain their commitment with respect to SLAs, Performance, Timely Implementation of the Project etc. the termination of the Contract Agreement may be initiated by giving 30 days notice as cure period and if it is not cured within 30 days then GSCL will terminate the Contract Agreement by giving further notice of 30 days. GSCL's decision in this regard will be final.
- 41.2 In case of termination of this Contract Agreement, GSCL shall have the right to avail services of any other bidder to continue the project without any hindrance from previous bidder and the bidder has to provide all necessary assistance for smooth switch over. GSCL will not pay any charges to the bidder.



- 41.3 In addition, GSCL reserves the right to appropriate the EMD / Performance Bank Guarantee given by the bidder and black-list the bidder.
- 41.4 Failure of the Successful bidder to agree with the RFP document shall constitute sufficient grounds for the annulment of the award, in which event GSCL may take a decision to re-issue the RFP document. In such a case, GSCL shall invoke the PBG of the Successful bidder.
- 42.0 Terms of Payment**
- 42.1 The bidder shall procure material only after the procurement clearance is received from Employer or it's representative. Bidder shall not dump the entire quantity as estimated after the design and detail engineering of the Job but shall procure for the current phase of work after due approval. In the event the Contract is terminated for reasons as appropriate by Employer, the bidder shall be liable for payment for only those quantities which have been cleared for procurement.
- 42.2 Interim and Final Payment Certificate
- 42.3 Interim Payment: - Bidder shall submit monthly payment certificate for the work executed. Payment shall be made not later than 30 (Thirty) working days from the date of submission of such Interim Payment Statement by the Bidder to the Authority for certification subject to the submission being not required to be revert back for corrections.
- 42.4 Payment breakup of approved rate per unit no. of LED Smart Street Lighting pole:
- (a) **On satisfactory completion of Foundation work required for erection of pole- 40%**
  - (b) **On satisfactory installation of pole including all luminaries and fittings- 40%**
  - (c) **On satisfactory testing and commissioning of pole- 20%**
  - (d) **Operation and Maintenance- Every Quarter in equal installments based on quoted prices of O & M will be paid.**
  - (e) **Payment shall be done only after successful installation of 1000 numbers of street light poles (in totality) with certification from Engineer.**
- 42.5 Final Payment
- After completion of all works and on issuance of completion certificate, the bidder shall submit Final Payment certificate to the Employer. Payment shall be made not later than 60 (Sixty) days from the date of submission of Final Payment Certificate.

### **43.0 Retention money**

5 (%) percent of each Interim Payment certificate will be deducted as retention money. The retention money will be returned after successful installation, commissioning and testing of 10000 nos. of street light poles (in totality) with certification from the Engineer.

### **44.0 Loss and Theft of Property**

44.1 The bidder shall be responsible for the up keeping of all the assets created and any loss and damage thereof shall be made good by him immediately at his own cost to continue the services under the scope of RFP document available for use. If bidder fails to create new assets which are damaged by theft or any other reason and Services are affected then the penalties will be levied as per Penalty Clause for not meeting the desired level of Service Level. If the level of services goes below the minimum level as prescribed in the Service Level Benchmark then GSCL will get it done at risk and cost of the bidder or take any suitable action including termination of Contract Agreement.

### **45.0 Miscellaneous**

- 45.1 GSCL, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to;
- (a) Suspend and/ or cancel the Bidding Process and/ or amend and/ or supplement the Bidding Process or modify the dates or other terms and conditions relating thereto;
  - (b) Consult with any BIDDER in order to receive clarification or further information;
  - (c) Retain any information and/ or evidence submitted to the GSCL by, on behalf of, and/ or in relation to any BIDDER; and/ or
  - (d) Independently verify, disqualify, reject and/ or accept any and all submissions or other information and/ or evidence submitted by or on behalf of any BIDDER.
- 45.2 It shall be deemed that by submitting the Bid, the BIDDER agrees and releases the GSCL, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder, pursuant hereto and/ or in connection with the Bidding Process and waives, to the fullest extent permitted by applicable laws, any and all rights and/ or claims it may have in this respect, whether actual or contingent, whether present or in future.
- 45.3 The bidder shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants or occupiers of adjacent properties during execution of work.
- 45.4 In the event of any restrictions being imposed by the GSCL, security agencies, traffic agencies, or any other authority in the working area, bidder

shall strictly follow such restrictions and nothing shall be excused from doing the stipulated work on this account. The loss of time on this account, if any, shall have to be made by deploying additional resources to complete the work in time. Other restrictions are given as under

- (a) The movement of trucks and vehicles shall be regulated in accordance with rules and regulations as approved by competent authority;
- (b) The bidder/agency shall inform in advance, the truck registration numbers, ownerships of the trucks, names and address of the drivers;
- (c) Labour huts/ stay of workmen will not be allowed at project area and in GSCL area;
- (d) The BIDDER shall be responsible for behaviour and conduct of its staff. The BIDDER shall engage no staff with doubtful integrity or having a bad record;
- (e) The workers of the BIDDER should strictly observe code of conduct and manner befitting security. If any employee of the BIDDER fails to absolve proper conduct, the BIDDER shall be liable to remove him from deployment, immediately in receipt of the instructions of the GSCL;
- (f) The BIDDER shall be responsible for the conduct and behaviour of its workers employed for the work;
- (g) The GSCL shall have the right to have any person removed who is considered unacceptable due to the reasons of security, efficiency, etc. Similarly, BIDDER reserves the right to change the staff as per its requirement;
- (h) The GSCL shall not be responsible for any compensation, which may be required to be paid to the worker(s) of the BIDDER consequent upon any injury/ mishap.

**46.0      Annexure 1 – Template for Pre-Bid Queries**

BIDDER shall submit all Pre-Bid queries in excel in the following format.

| S.<br>No. | RFP Volume ,<br>Section | RFP Page No | Contents in RFP | Clarification Sought |
|-----------|-------------------------|-------------|-----------------|----------------------|
|           |                         |             |                 |                      |
|           |                         |             |                 |                      |
|           |                         |             |                 |                      |
|           |                         |             |                 |                      |
|           |                         |             |                 |                      |
|           |                         |             |                 |                      |
|           |                         |             |                 |                      |

**47.0      Annexure 2 – Formats for Submission of the Pre-Qualification Bid****Pre-qualification Bid checklist**

| Sl. no. | Checklist Items  | Compliance (Yes or No) | Page No. And Section No. in Bid |
|---------|--|------------------------|---------------------------------|
| 1       | RFP Document fees  |                        |                                 |
| 2       | Earnest Money Deposit  |                        |                                 |
| 3       | Pre Qualification Covering letter  |                        |                                 |
| 4       | Copy of entity Incorporation/Registration Certificate                      |                        |                                 |
| 5       | PAN card   |                        |                                 |
| 6       | GST Registration Certificate (Central and State) VAT registration, CST, ST |                        |                                 |
| 7       | Audited financial statements for the last three financial years            |                        |                                 |
| 6       | Declaration of non-blacklisting  |                        |                                 |
| 7       | Experience Certificate   |                        |                                 |
| 8       | No Deviation Certificate   |                        |                                 |
| 9       | Total Responsibility Certificate   |                        |                                 |
| 10      | Anti Collusion Certificate   |                        |                                 |

## 48.0 Bid Covering Letter

Date: dd / mm / yyy

To,

[            ]

Sub: Request for Proposal design, supply, installation, maintenance of light pole and luminaries with all fittings at .....area.....for .....1.....year. Ref: RFP No. <<.....>> dated << .....>>

Dear Sir,

With reference to your request for proposal for design, supply, installation, maintenance of light pole and luminaries with all fittings at .....area.....for .....1.....year on Design, Build, Operate Basis", we hereby submit our qualification Bid, Technical Bid and Price Bid for the same.

We hereby declare that:

We hereby acknowledge and unconditionally accept that the GSCL can at its absolute discretion apply whatever criteria it deems appropriate, not just limiting to those criteria set out in the RFP and related documents, in short listing of agency/BIDDER for providing services.

We have submitted EMD of INR [    ] in form of Bank Guarantee and Tender fee of INR [    ] in form of DD / Banker Cheque No \_\_\_\_\_ Dt \_\_\_\_\_

We hereby declare that all information and details furnished by us in the Bid are true and correct, and all documents accompanying such application are true copies of their respective originals.

We agree to abide by our offer for a period of 180 days from the date of opening of pre-qualification Bid prescribed by GSCL and that we shall remain bound by a communication of acceptance within that time.

We have carefully read and understood the terms and conditions of the RFP and the conditions of the contract applicable to the RFP. We do hereby undertake to provision as per these terms and conditions.

In the event of acceptance of our Bid, we do hereby undertake to complete the work in accordance with tender requirement and as per scope of work mentioned in Tender document

All other works and services ancillary or related to the full completion of the Works in accordance with the GSCL's requirements as stipulated in the RFP document

To undertake the Construction works for entire contract period from the date of signing of the contract as mentioned in the RFP document.

We affirm that the prices quoted are inclusive of design, build, operate basis and inclusive of all out of pocket expenses, taxes, levies discounts etc.

We do hereby undertake, that,

until a formal contract is prepared and executed, this Bid, together with your written acceptance thereof and notification of award of contract, shall constitute a binding contract between us.

We understand that the GSCL may cancel the bidding process at any time and that GSCL is not bound to accept any Bid that it may receive without incurring any liability towards the BIDDER.

We fully understand and agree to comply that on verification, if any of the information provided in our Bid is found to be misleading the selection process, we are liable to be dismissed from the selection process or termination of the contract during the project, if selected to do so.

In case of any clarifications please contact \_\_\_\_\_ email at  
\_\_\_\_\_

Thanking you,

Yours sincerely,

(Signature of the Lead BIDDER)

Printed Name

Designation:

Seal

Date:

Place:

Business Address:

## Company profile

Brief company profile (required for both BIDDER / Lead member)

| SL.NO. | PARTICULARS  | DESCRIPTION OR DETAILS |
|--------|--|------------------------|
| 1      | Name of BIDDER   |                        |
| 2      | Legal status of BIDDER (company, Pvt. Ltd., LLP, firm etc.)                      |                        |
| 3      | Main business of the BIDDER  |                        |
| 4      | Registered office address  |                        |
| 5      | Incorporation date and number  |                        |
| 6      | Service Tax number   |                        |
| 7      | GST Registration Certificate (Central and State) VAT registration, CST, ST       |                        |
| 8      | PAN details  |                        |
| 9      | Primary Contact Person (Name, Designation, address, mobile number, fax, email)   |                        |
| 10     | Secondary Contact Person (Name, Designation, address, mobile number, fax, email) |                        |
| 11     | EMD details  |                        |



Certificate of Incorporation

**Financial Turnover**

The financial turnover of the company is provided as follows:

|                    | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
|--------------------|---------|---------|---------|---------|---------|
| Annual<br>Turnover |         |         |         |         |         |

Copy of audited financial statements or declaration from the appointed statutory auditor to be provided as proof of the financial turnover

#### **49.0          Annexure 3: Declaration of Non-Blacklisting**

(To be provided on the Company letter head)

In case of Joint venture the above form shall be filled by The JV members separately

Declaration for Lead BIDDER:

Place

Date

To,

[       ]

Subject: Self Declaration of not been blacklisted in response to the Request for Proposal design, supply, installation, maintenance of light pole and luminaries with all fittings at .....area.....for .....years. Ref: RFP No. <<.....>> dated << .....>>

Ref: RFP No. <<.....>> dated << .....>>

Dear Sir,

We confirm that our company or firm / entity, \_\_\_\_\_, is currently not blacklisted in any manner whatsoever by any of the State or Union Territory and or Central Government in India on any ground including but not limited to indulgence in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.

(Signature of the Lead BIDDER)

Printed Name

Designation

Seal

Date:

Place:

Business Address:

**50.0**

**1.0        Annexure 4: No Deviation Certificate ( To be submitted by Sole Bidder / All members of Joint Venture)**

This is to certify that our offer is exactly in line with your tender enquiry/RFP (including amendments) no. \_\_\_\_\_ dated \_\_\_\_\_. This is to expressly certify that our offer contains no deviation either technical including but not limited to scope of work, business requirements specification, functional requirements specification and technical requirements specification) or financial in either direct or indirect form.

(Authorized Signatory)

Signature:

Name:

Designation:

Address:

Seal:

Date:

**2.0      Annexure 5: Total Responsibility Certificate ( To be submitted by Sole Bidder / All members of Joint Venture)**

This is to certify that we undertake the total responsibility for the defect free operation of the proposed construction works as per the requirement of the RFP for the duration mentioned in all the volumes of the RFP.

(Authorized Signatory)

Signature:

Name:

Designation:

Address:

Seal:

Date:

Business Address

**3.0 Annexure 6: – Formats for Experience Certificate (To be submitted by Sole BIDDER as well as all members of Joint venture)**

**Statement – A - Statement showing the similar works completed in the last Five years.**

| Sr. No. | Name of Department / Client with Address | Name of work | Estimated cost of work put to tender | Tendered Amount | Date of award of contract | Target date of completion of work as per contract and date of completion of work if completed |                 | Actual Amount of work completed/ Number of Poles installed | Time limit in year and months |              | Percentage rate and amount of Penalty | Reasons for delay in completion of work | Remarks |
|---------|--|--------------|--------------------------------------|-----------------|---------------------------|---|-----------------|--|-------------------------------|--------------|---------------------------------------|---|---------|
|         |  |              |                                      |                 |                           | Target Date   | Completion Date |  | Original Y M                  | Extended Y M |                                       |   |         |
| 1       | 2  | 3            | 4                                    | 5               | 6                         | 7a  | 7b              | 8  | 9a                            | 9b           | 10                                    | 11                                      | 12      |
|         |  |              |                                      |                 |                           |   |                 |  |                               |              |                                       |   |         |

Note: Attested Copies of Work Order and Completion Certificates from Competent GSCL (Engineer In charge, not below the rank of Executive Engineer) should be attached in respect of each work.

It is mandatory to furnish details in this format only. Sole BIDDER/member of JV also shall submit annual maintenance certificate duly signed by competent GSCL in support of his Maintenance experience meeting the eligibility criteria

Signature:

Name:

Designation:

Office Address with contact details:

Seal:

Date:

### 3.1 Statement - B

Statement showing the similar works on hand / work in progress

| Sr.No. | Name of Department / Client with Address | Name of work | Estimated cost of work put to tender | Tendered Amount | Date of award of contract | Target date of completion of work as per contract and date of completion of work if completed |                      | Actual Amount of work done | Time limit in year and months |                       | Reasons for delay in completion of work | Remarks |
|--------|--|--------------|--------------------------------------|-----------------|---------------------------|---|----------------------|----------------------------|-------------------------------|-----------------------|---|---------|
|        |  |              |                                      |                 |                           | Target Date   | % Progress till Date |                            | Original Y M                  | Extended (if any) Y M |   |         |
| 1      | 2  | 3            | 4                                    | 5               | 6                         | 7a  | 7b                   | 8                          | 9a                            | 9b                    | 10                                      | 11      |
|        |  |              |                                      |                 |                           |   |                      |                            |                               |                       |   |         |

Note:-Attested copies of work order from issuing GSCL have to be attached.

It is mandatory to furnish details in this format only.

In case of Joint venture the above form shall be filled by The JV members separately

Signature:

Name:

Designation:

Address:

Seal:

Date:

3.2

**Statement – C - Team Member employed by the firm on date.....**

| Sr.No. | Name | Photo | Designation          | Educational Qualification | Experience in the field | Duration of Service in the firm |
|--------|------|-------|----------------------|---------------------------|-------------------------|---------------------------------|
|        |      |       | Project Manager      |                           |                         |                                 |
|        |      |       | Senior Site Engineer |                           |                         |                                 |
|        |      |       | Electrical Engineer  |                           |                         |                                 |
|        |      |       | O&M Supervisor       |                           |                         |                                 |
|        |      |       | Service Technicians  |                           |                         |                                 |

Signature:

Name:

Designation:

Office Address with contact details:

Seal:

Date

Note: Attested Copies of Educational & experienced Certificates attached. It is mandatory to furnish details in this format only.

Enclosure: (a) Photograph, (b) Educational Certificates, (c) Experience Certificates

3.3

**Statement – D**

Details of other team member (technical and non technical) to be employed for the project

| Sr.<br>No | Designation | Total<br>number | Number<br>available<br>for this<br>work | Name | Qualificati<br>on. | Profession<br>al<br>experience<br>of details<br>of work<br>carried<br>out. | How<br>these<br>would<br>be<br>involved<br>in this<br>work. | Remarks. |
|-----------|-------------|-----------------|---|------|--------------------|--|---|----------|
| 1         | 2           | 3               | 4                                       | 5    | 6                  | 7  | 8   | 9        |
|           |             |                 |   |      |                    |  |   |          |
|           |             |                 |   |      |                    |  |   |          |
|           |             |                 |   |      |                    |  |   |          |
|           |             |                 |   |      |                    |  |   |          |
|           |             |                 |   |      |                    |  |   |          |

Signature:

Name:

Designation:

Office Address with contact details:

Seal:

Date:



**4.0 Annexure 7: Anti-Collusion Certificate ( To be submitted by Sole Bidder / All members of Joint Venture)**

We hereby certify and confirm that in the preparation and submission of our Bid for design, supply, installation, maintenance of light pole and luminaries with all fittings at .....area.....for .....years on design, build and operate mode in .....Assam against the RFP issued by GSCL, we have not acted in concert or in collusion with any other BIDDER or other person(s) and also not done any act, deed or thing, which is or could be regarded as anti-competitive. We further confirm that we have not offered nor will offer any illegal gratification in cash or kind to any person or organization in connection with the instant Bid.

(Signature of the BIDDER)

Printed Name

Designation

Seal:

Date:

Place:

Office Address with contact details:

## 5.0 Annexure 8: Performance Bank Guarantee

Ref: \_\_\_\_\_

Date \_\_\_\_\_

Bank Guarantee No. \_\_\_\_\_

<Name>

<Designation>

<Address>

<Phone Nos>

<Fax Nos.>

<Email id>

Whereas, <<name of the BIDDER and address>> (hereinafter called “the BIDDER”) has undertaken, in pursuance of contract no. <Insert Contract No.> dated. <Date> to provide construction works for <<name of the assignment>> to name of GSCL (hereinafter called “the GSCL”)

And whereas it has been stipulated by in the said contract that the BIDDER shall furnish you with a bank guarantee by a recognized bank for the sum specified therein as security for compliance with its obligations in accordance with the contract.

And whereas we, <Name of Bank> a banking company incorporated and having its head/registered office at <Address of Registered Office> and having one of its office at <Address of Local Office> have agreed to give the supplier such a bank guarantee.

Now, therefore, we hereby affirm that we are guarantors and responsible to you, on behalf of the BIDDER, up to a total of Rs.<Insert Value> (Rupees <Insert Value in Words> only) and we undertake to pay you, upon your first written demand declaring the BIDDER to be in default under the contract and without cavil or argument, any sum or sums within the limits of Rs. <Insert Value> (Rupees <Insert Value in Words> only) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the BIDDER before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the BIDDER shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This Guarantee shall be valid until <<Insert Date>>)

Notwithstanding anything contained herein:

Our liability under this bank guarantee shall not exceed Rs. <Insert Value> (Rupees <Insert Value in Words> only).

This bank guarantee shall be valid up to <Insert Expiry Date>)

It is condition of our liability for payment of the guaranteed amount or any part thereof arising under this bank guarantee that we receive a valid written claim or demand for payment under this bank guarantee on or before <Insert Expiry Date>) failing which our liability under the guarantee will automatically cease.

Date \_\_\_\_\_

Place \_\_\_\_\_

Signature \_\_\_\_\_

Witness \_\_\_\_\_

Printed Name \_\_\_\_\_

(Bank's common seal)

## 6.0 Annexure 9: Format for Power of Attorney to Authorize Signatory

### POWER OF ATTORNEY

[To be executed on non-judicial stamp paper of the appropriate value in accordance with relevant Stamp Act. The stamp paper to be in the name of the company who is issuing the power of attorney.]

We, M/s.\_\_\_\_\_ (name of the firm or company with address of the registered office) hereby constitute, appoint and authorize Mr. or Ms.\_\_\_\_\_ (Name and residential address) who is presently employed with us and holding the position of \_\_\_\_\_, as our Attorney to do in our name and our behalf all or any of the acts, deeds or things necessary or incidental to our RFP for the Project \_\_\_\_\_ (name of the Project), including signing and submission of the RFP response, participating in the meetings, responding to queries, submission of information or documents and generally to represent us in all the dealings with Client or any other Government Agency or any person, in connection with the works until culmination of the process of Bidding till the Project Agreement is entered into with \_\_\_\_\_ (Client) and thereafter till the expiry of the Project Agreement.

We hereby agree to ratify all acts, deeds and things lawfully done by our said Attorney pursuant to this power of attorney and that all acts, deeds and things done by our aforesaid Attorney shall and shall always be deemed to have been done by us.

(Add in the case of a Consortium)

Our firm is a Member or Lead BIDDER of the Consortium of \_\_\_\_\_, \_\_\_\_\_  
and \_\_\_\_\_. Dated this the \_\_\_\_\_ day of \_\_\_\_\_ 2017

(Signature and Name of authorized signatory)

\_\_\_\_\_

(Signature and Name in block letters of all the remaining partners of the firm Signatory for the Company)

Seal of firm Company

Witness 1:

Witness 2:

Notes:

To be executed by all the members individually.

The Mode of execution of the power of attorney should be in accordance with the procedure, if any laid down by the applicable law and the charter documents of the executants(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.

**7.0      Annexure 10: Format for financial bid / commercial bid**

BIDDER is requested to submit their financial quote on <https://assamtenders.gov.in>

## 9.0 Annexure 11 – Bank guarantee for earnest money deposit

To,

<Name>

<Designation>

<Address>

<Phone Nos.>

<Fax Nos.>

<Email id>

Whereas <<Name of the BIDDER>> (hereinafter called 'the BIDDER) has submitted the Bid for Submission of RFP <<RFP Number>> dated <<Date>> for <<Name of the assignment>> (hereinafter called "the Bid") to <<GSCL>>.

Know all men by these presents that we <<... >> having our office at <<Address>> (hereinafter called "the Bank") are bound unto the << GSCL >> (hereinafter called "the GSCL") in the sum of Rs. <<Amount in figures>> (Rupees <<Amount in words>> only) for which payment well and truly to be made to the said GSCL, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this <<Date>>.

The conditions of this obligation are:

If the BIDDER withdraws or amends, impairs or derogates its Bid during the period Bid validity specified in the RFP

If the BIDDER withdraws or amends, impairs or derogates its Bid during the period notification on acceptance of Bid by GSCL to BIDDER.

Withdraws his participation from the Bid during the period of validity of Bid/quote.

If BIDDER fails to submit performance bank guarantee to GSCL

We undertake to pay to the GSCL up to the above amount upon receipt of its first written demand, without the GSCL having to substantiate its demand, provided that in its demand to the GSCL will note that the amount claimed by it is due to it owing to the occurrence of one or all of the conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to <<insert date>> and including <<extra time over and above mandated in the RFP>> from the last date of submission and any demand in respect thereof should reach the Bank not later than the above date.

Notwithstanding anything contained herein:

Our liability under this Bank Guarantee shall not exceed Rs. <<Amount in figures>> (Rupees  
<<Amount in words>> only)

This Bank Guarantee shall be valid up to <<insert date>>)

It is condition of our liability for payment of the guaranteed amount or any part thereof arising under this bank guarantee that we receive a valid written claim or demand for payment under this bank guarantee on or before <<insert date>>) failing which our liability under the guarantee will automatically cease.

(Authorized Signatory of the Bank)

Seal:

Date:

## 10.0 Annexure 12 - Format for Line of Credit

Sample format for evidence of access to or availability of credit facilities

### BANK CERTIFICATE

This is to certify that M/S ----- is a reputed company with a good financial standing. If the contract for the work, namely, \_\_\_\_\_ is awarded to the above firm, we shall be able to provide overdraft / credit facilities to the extent of Rs. \_\_\_\_\_ to meet their working capital requirements for executing the above Contract.

Signature of Senior Bank Manager \_\_\_\_\_

Name of the senior Bank Manager \_\_\_\_\_

Address of the Bank -----

Stamp of the Bank Note: Certificate should be on the letter head of the bank.



## 11.0 Annexure 13 - Format for Joint Venture Agreement JOINT VENTURE AGREEMENT

(To be notarized on stamp paper of appropriate value)

The Joint Venture agreement made and entered into at \_\_\_\_\_ (place)  
on \_\_\_\_\_ day of \_\_\_\_\_ (YEAR) by and between.

Firm A ( Name with address of the registered office)

Firm B (Name with address of the registered office )

(2) Definitions: In this deed the following words and expressions shall have the meaning set out below.

"The Employer" shall mean MD, Guwahati Smart City Limited (GSCL)

"The \_\_\_\_\_ Works" shall \_\_\_\_\_ mean

\_\_\_\_\_(Name of work) which is more particularly described in the pre-qualification and tender documents issued thereof by the Employer.

"The Tender" shall mean the Tender to be submitted by Joint Venture to the Employer for the work /works.

"The Contract" shall mean the contract entered /to be entered into between the Joint Venture and the Employer for the works.

Joint Venture (J.V):

The Parties hereto declare that they have agreed to form a Joint Venture for the purpose of submitting the pre-qualification Application/ tender document initially and then tender and if successful for the execution of the works as an integrated Joint Venture. The parties are not under this agreement entering into any permanent partnership of Joint Venture to tender or undertake any contract other than the subject works. Nothing herein contained shall be considered to constitute the parties of partners to constitute either Party the agent of the other.

Witnesses: Where as Employer has invited tenders from intending bidders and has permitted a group of firms (not exceeding two) forming a Joint Venture to eligible to be a bidder. And whereas\_ MD, Guwahati Smart City Limited (MD, GSCL) \_\_\_\_\_party of the first part and \_\_\_\_\_party of the Second part (if applicable) are desirous to enter into a Joint Venture in the nature of partnership engaged in the joint undertaking for the specific purpose of execution of the work of constructing \_\_\_\_\_and whereas Parties of the first and Second part (if applicable) reached understanding to submit pre-qualified/ tender, if pre-qualification, and to execute the contract if awarded;

This agreement witness as follows.

The parties do not enter into an agreement of any permanent partnership of Joint Venture to tender or undertake any Contract other than the specified above;

That the operation of this Joint Venture firm concerns and is confined to the work of \_\_\_\_\_of Guwahati Smart City Limited (GSCL)

The name of the Joint Venture firm for convenience and continuity shall be: \_

\_\_\_\_\_The  
Address of Joint Venture for communication shall be as under.:

\_\_\_\_\_The Joint Venture shall jointly submit pre-qualification application on the above name according to all terms and conditions stated in the relevant instructions contained in the bid documents.

That this Joint Venture shall regulate the relations between the parties thereto and shall include without being limited to them the following conditions.

\_\_\_\_\_ firm shall be the lead company in charge of the Joint Venture for all intents and purpose.

In case the said work is awarded to the Joint Venture, the partners of the Joint Venture will nominate a person with duly notarized power of Attorney on stamp paper, who will represent the Joint Venture with the authority to incur liabilities, receive instructions and payments, sign and execute the contract for an on behalf of the Joint Venture,

All the (Maximum Two) parties agree to make financial participation and to place at disposal of Joint Venture the benefits of its individual experience, technical knowledge, skill and shall in all respect bear its share as regards planning and execution of the work and responsibilities including the provision of information, advice and other assistance required in the Joint Venture and participation shall be in proportion of, Firm –A.....% Firm - B.....%

All rights, interests, liabilities, obligations work experience and risks (and all net profits or net losses) arising out of the contract shall be borne by the parties in proportion to their shares. Each of the parties shall furnish its proportionate share in any bonds, guarantees, sureties required for the works as well as its proportionate share in connection with the works. The share and participation of the two partners in working capital and other financial requirements shall be in ratio as mentioned above.

Internal responsibilities and liabilities:

The division of individual scope of work may be worked out mutually by the parties but the party shall be jointly and severally liable to the employer for the whole work.

The parties specifically undertake to carry out their separate works in full compliance with the contract with the employer. Each party shall be responsible jointly and severally for consequences if any arising out of defective or delayed execution of works which falls within the individual's party's area of responsibility and/ or it has been caused due to acts and /or omission of the concerned party.

The parties jointly and severally agree to replace modify or repair any defect in their respective portions of works in accordance with the terms and condition of the contract with the employer.

The parties jointly and severally shall indemnify and hold harmless to each other against any claim made by the employer or any other third party for injury, damage, loss or expenses is attributed to the breach /non-performance of his responsibilities

by the indemnifying party in accordance with the agreements and /or contract with the employer.

None of parties have joined in any other Joint Venture for the said works.

Responsibilities and liabilities of Joint Venture towards the employer:

Parties hereto shall be jointly and severally liable and responsible for the acts, deeds and things done or omitted to be done in respect of the execution of the contract and for any financial liability arising there from.

Parties hereto shall be jointly and severally responsible to the Employer for the execution of the works in accordance with the contract conditions;

Parties hereto shall be jointly and severally indemnify to the Employer against any claim made against the employer or any other third party for any injury, damage or loss which may be attributed to the breach of the obligations under the contract pursuant to the contract.

Site management:

The execution of the work on the site will be managed by a Project Manager appointed by the Joint Venture and who will report to the \_\_\_\_\_(J.V.) the project manager shall be authorized to represent the Joint Venture on site in respect of matters arising under the contract.

The \_\_\_\_\_(Name of the J.V.) shall be jointly and severally liable to the employer for the execution of the contract commitment in respect of the works in accordance with contract conditions.

Termination of the Agreement:

This agreement shall be terminated in the following circumstances.

The employer awards the contract for the work to the other Bidder.

The employer cancels the work to award the contract.

On completion of the defect liability period as stipulated in the contract agreement of the works and all the liabilities thereof are liquidated.

No partner has right to assign any benefits, obligation of liability under the agreement to any third party without prior written consent of the other partner as well as MD, Guwahati Smart City Limited (GSCL).

Financial matter:

(a) Bank Account in the name of the Joint Venture will be opened with nationalized Bank having branch at Guwahati to be operated by an individual signatory as decided mutually by the Joint Venture partners.

(b) All the partners shall be responsible to maintain or cause to maintain proper Books of accounts balance sheet and profit and loss account as to the state of affairs of the firm as at the end of the financial year and as to the profit and loss made or incurred by the firm for the year ended on that date, respectively shall be prepared and the same shall subject to audit by a Chartered Accountant.

(c) None of the party shall be entitled to make any borrowing on behalf of the Joint Venture without express prior written consent of the other party.

(d) Bank guarantee for the application /execution of the work shall be provided jointly from a bank acceptable to the employer.

Negotiation : Any negotiation of agreement between the parties hereto and the employer subsequent to the submission of the tender and prior to award, shall take place only with consent of each of the parties who shall be represented at the such negotiation by one or more representative(s) duly empowered to make such negotiation or agreement.

Legal jurisdiction: All questions relating to validity interpretation of this agreement shall be governed by the law of India and shall be subject to jurisdiction of High court at Guwahati .

Insurance:

The Joint Venture through the parties individually shall take such insurance in connection with the work in accordance with the tender condition as acceptable to the employer.

The cost of the insurance premium paid by the Joint Venture shall be borne and paid by the parties in proportion to the respective shares of work. Other insurance taken individually by the parties shall be fully borne by the respective parties.

No change shall be made in this agreement without prior written consent of the employer and other party. However if the employer directs the parties to make changes in the agreement so as to fulfill tender conditions the parties discuss with employer and mutually agreed such changes required to be made in the agreement.

Default and withdrawals from the Joint Venture: In case that either party fails to observe the provision stipulated in this agreement withdrawal from the Joint Venture, Loss and/or expenses incurred by other party due to such default and /or withdrawals shall be fully compensated by the party who has defaulted.

All matter relating to or arising due to this agreement shall be treated as confidential and shall not be disclosed to any other party. In witness whereof the parties have caused their duly authorized representatives to sign below.

Witness:

Signed for and on behalf of firm-A

Date Seal

Witness:

Signed for and on behalf of firm-B

Date Seal

**12.0 Annexure 13 - Format for MEMORANDUM OF UNDERSTANDING (MOU) with OEM (LED Smart Street Lighting Luminaries - Street Light controllers)**

This MEMORANDUM OF UNDERSTANDING hereinafter referred to as MoU made on\_\_ Day \_\_\_\_\_ (month and year) at \_\_\_\_\_ by and between.

(Name of Original Equipment Manufacturer (OEM) with address) \_\_\_\_\_, represented by \_\_\_\_\_ Authorized Signatory, which expression shall unless repugnant to the subject or context include its administrators, Successors and assigns.

(Name of Bidder with Address) \_\_\_\_\_, represented by \_\_\_\_\_ (Authorized Signatory), which expression shall unless repugnant to the subject or context includes its administrator, successor and assigns

Hereinafter referred to as "Parties" in the collective sense and each of which is referred to as "\_\_\_\_\_" (Name of Original Equipment Manufacturer (OEM))" & "\_\_\_\_\_" (Name of Bidder)" in the individual sense.

WHEREAS Guwahati Smart City Limited (hereinafter referred to as Employer) has invited tender (hereinafter referred to as the ("project")) for the following work:

Name of Project: \_\_\_\_\_

WHEREAS if the said project is awarded to "\_\_\_\_\_" (Name of Bidder) to execute the said project and it would also need Electrical materials such as LED Smart Street Lighting Luminaries & Centralized Control Monitoring System- Street Light controllers and we the "\_\_\_\_\_" (Name of Bidder) hereby enter into this MoU with "\_\_\_\_\_" (Name of Original Equipment Manufacturer (OEM))" for timely execution of \_\_\_\_\_ (Name of Project) and as per the tender conditions and further we mutually agree to execute the said project jointly and both the parties would be jointly and severally responsible for execution of the said projects as per the Bidding Documents.

IN WITNESS WHEREOF all the parties mentioned herein above have signed this MOU on the day, month and year first above mentioned.

No change shall be made in this agreement without prior consent of Employer and other party. However, If the Employer direct the parties to make changes in MOU agreement so as to fulfill the tender condition / requirement, the parties shall discuss with the employer and shall mutually agree for such changes as may be required to be made in the agreement.

In the interest of timely completion of the project, after discussion and getting assurance from manufacture of Electrical materials such as LED Smart Street Lighting Luminaries & Centralized Control Monitoring System- Street Light controllers, the following schedule for \_\_\_\_\_ Supply of Electrical materials is proposed in order to meet the milestones and desired target of the projects .

Total number of days for supply of Electrical materials shall be \_\_\_\_\_ days from the date of work order. We hereby declare that the supply of Electrical materials for the Project will be ensured by us (within \_\_\_\_\_ days) as per the above mentioned schedule. We are aware that, in case the above schedule is not met with by us, we

shall be liable for paying the Liquidated damages as prescribed in the tender documents for non fulfillment of assured supply of Electrical materials.

For, (Name of Bidder)

For, (Name of Original Equipment  
Manufacturer (OEM))

Authorized Signatory

Authorized Signatory

Diagram of a square frame structure. The overall dimensions are 300 (width) by 300 (height). The frame is composed of four links, labeled "LINKS Y8 @200 C/C". The frame is supported by four points, labeled "4-12 Ø".

[illegible]

| SECTIONS | NOS                 | BAR SIZE | REMARKS                         |
|----------|---------------------|----------|---------------------------------|
|          | 7+7=14 NOS          | 10mm DIA | FOOTING REINFORCEMENT           |
|          | 4 NOS<br>(1100x150) | 12mm DIA | PEDESTAL VERTICAL REINFORCEMENT |
|          | 7 NOS<br>(240x240)  | 8mm DIA  | PEDESTAL STIRRUPS               |

[illegible]

**REQUEST FOR PROPOSAL FOR**  
**IMPLEMENTATION OF**  
**STREET LIGHT POLES**  
**UNDER**  
**“PROJECT JYOTI”**  
**SCHEME**  
**ON**  
**DESIGN, BUILD AND OPERATE BASIS**



*Guwahati Smart City Limited,  
Guwahati, Assam*

Tender Notice No. ....

Dated: ...../...../.....

**Volume II: Technical Specifications & Drawings**



## TABLE OF CONTENTS

|      |  |    |
|------|--|----|
| 1.0  | SCOPE OF WORK.....   | 3  |
| 2.0  | GENERAL INSTRUCTION TO CONTRACTORS .....   | 3  |
| 3.0  | APPLICABLE CODES AND STANDARDS .....   | 5  |
| 4.0  | DESIGN CRITERIA.....   | 6  |
| 5.0  | PROJECT WORK SYSTEM.....   | 6  |
| 6.0  | TECHNICAL SPECIFICATION ON LED LUMINAIRE .....   | 7  |
| 7.0  | TECHNICAL SPECIFICATION ON LED DRIVER.....   | 14 |
| 8.0  | TECHNICAL SPECIFICATION OF LIGHT POLE .....  | 14 |
| 9.0  | TECHNICAL SPECIFICATION ON CIVIL POLE FOUNDATION.....  | 15 |
| 10.0 | OPERATION & MAINTENANCE .....  | 16 |
| 11.0 | QUALITY CONTROL PLANS .....  | 19 |
| 12.0 | INSPECTION .....   | 20 |
| 13.0 | HAND-OVER OF THE SYSTEM AT THE END OF CONTRACTUAL PERIOD.....  | 21 |
| 14.0 | SYSTEM DOCUMENTS, USER DOCUMENTS .....   | 21 |
| 15.0 | ANNEXURE- 1 .....  | 22 |
|      | TABLE NO: 1 - LUMINAIRE DATA SHEET .....   | 22 |
| 16.0 | APPROVED MAKES .....   | 26 |
| 17.0 | TENDER DRAWINGS.....   | 26 |
| 17.1 | DRAWING NO: TCE.10477A-EL-4026-GL-40003-P0 – DESIGN OF STREET LIGHT<br>POLE FOR PROJECT JYOTI.....                           | 26 |
| 17.2 | DRAWING NO: TCE.10477A-EL-4026-GL-40004-P0 – REINFORCEMENT DETAILS OF<br>STREET LIGHT POLE FOUNDATION FOR PROJECT JYOTI..... | 26 |
| 17.3 | DRAWING NO: TCE.10477A-EL-4026-GL-40015-P0 – ELECTRICAL CONNECTION<br>DETAILS OF LIGHT POLE FOR PROJECT JYOTI .....          | 26 |

## **1.0 SCOPE OF WORK**

- 1.1 The scope of works is as defined in the Vol I of the RFP Instruction to the CONTRACTORS.
- 1.2 Refer following Drawings for technical scope and requirements for this project.
- (a) Drawing no. TCE. 10477A-EL-4026-GL-40003 – Design of Street Light Pole for Project Jyoti
  - (b) Drawing no. TCE. 10477A-EL-4026-GL-40004 – Reinforcement details of Street Light Pole Foundation for Project Jyoti
  - (c) Drawing no. TCE. 10477A-EL-4026-GL-40015 – Electrical Connection details of Light Pole for Project Jyoti

## **2.0 GENERAL INSTRUCTION TO CONTRACTORS**

- 2.1 This specification is the minimum requirement and should be read in conjunction with relevant latest specifications, requirements, rules and regulations of the Local Authority. Any additional requirements as per Local Authority shall be offered by CONTRACTOR as per specifications, requirements, rules and regulations of the Local Authority. The same shall be indicated in the Technical Proposal and a separate Bill of Quantities (BOQ) for additional or modified items shall be submitted.
- 2.2 All SAFETY considerations in design and manufacturing for safe operation & maintenance and safe practices during installation at site shall be in the scope of the CONTRACTOR. Cost towards accomplishing the same shall be included in the BID price and no extra claim shall be entertained later.
- 2.3 Equipments furnished/ supplied under this scope of works shall be complete in every respect with all mountings, fittings, fixtures, and standard accessories normally provided with such equipment and / or needed for erection, completion and safe operation of the equipment as required by applicable codes though they may not have been specifically detailed in the Technical Specification unless included in the list of exclusions. Materials and component not specifically stated in the specification but which are necessary for commissioning and satisfactory operation unless specifically excluded shall be deemed to be included in the scope of specification and shall be supplied without any extra cost. All similar standard components/ parts of similar standard equipment provided shall be inter-changeable with one another.
- 2.4 The CONTRACTOR shall be responsible for the selection and design of appropriate equipment to provide the best co-ordinated performance of the entire system. The design of various components, sub-assemblies and assemblies shall be so done that it facilitates easy field assembly and maintenance.
- 2.5 The Battery Limit of CONTRACTOR starts from the outgoing of Tariff meter till the Light Pole including civil foundation, dressing of power cable on wall/ column or lay it

buried in HDPE pipe from the Connection point to the pole as indicated in the enclosed drawing no. TCE.10477A- EL-4026-GL-40015. .

- 2.6 The CONTRACTOR shall plan and carry out all supply, installation, testing and commissioning of the lighting pole conforming to the approved drawing, technical specification and good engineering practices.
- 2.7 The material supplied by the CONTRACTOR shall be subject to approval of the designated Authorities of GSCL. Samples of the Supply material under the scope of works shall be inspected by GSCL or their representatives either at site or at Manufacturer's works and approve them for supply and execution. Notwithstanding any approval/ instruction given otherwise, if GSCL, during random check up, finds any non conformance with the quality of material supplied by the CONTRACTOR with respect to the technical specifications, GSCL shall have the Authority to reject the entire lot/ batch of that particular material and be replaced without any cost impact to GSCL.
- 2.8 During the construction at site, it shall be the CONTRACTOR'S responsibility to take care of the safety and security of its person and material at site. The CONTRACTOR shall be self reliant with all the requirements including tools and tackles for digging, filling, erecting, lifting, etc. and consumables required for construction like electricity and water at his own cost.
- 2.9 The CONTRACTOR shall make provision for adequate no of Self Supporting Ladders of minimum 3 m height with anti-skid rubber pads at the bottom or any other better tool for working at height, required tools and instruments, duly calibrated, for installation and maintenance to meet the deadlines and benchmarks specified.
- 2.10 The CONTRACTOR shall carryout the installations in a safe and responsible manner without any inconvenience or danger to public. The CONTRACTOR shall also take care not to damage any public/ private property by mistake or by intention during the course of work with its actions and shall be well insured to compensate the owner in case any such incidence happens.
- 2.11 The CONTRACTOR shall not be responsible for any Theft of component/ equipment from the Light Pole system within the Consumer premises after handover.
- 2.12 All the cost towards liaison with statutory Bodies for seeking all necessary statutory approvals and other activities involving Govt. Agencies viz., drawing approval, testing and commissioning etc, shall be borne by the CONTRACTOR.
- 2.13 All the statutory fees, if required to be paid, for any required approval shall be borne by GSCL. Such payments shall be reimbursed to the CONTRACTOR upon submission of stamped receipts to GSCL.
- 2.14 GSCL shall not be responsible for any untoward incidence arising out of faulty design or poor installations.. The CONTRACTOR would be responsible for any civil/criminal proceedings arising out of such incidence and for damage caused to life and property thereof.

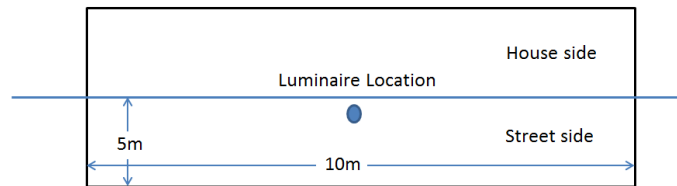
- 2.15 Upon completion of work in each plot, 15-days testing period will start to check the adequacy of the installed LED street lighting system. The issue of completion certificate to the CONTRACTOR is subject to successful testing and approval of GSCL.
- 2.16 GSCL is free to draw samples (not more than 0.5% per lot) after the start of supplies from the supplied quantity and ask the CONTRACTOR to subject the same to test in a NABL Accredited Lab. CONTRACTOR shall bear the cost of such tests from sampling to test and back to site. The decision of GSCL on the same shall be binding on the CONTRACTOR. In case of Failure of the sample, the whole lot shall be rejected. will. Repeated cases of such failure will cause termination of contract.
- 2.17 NIL
- 2.18 The Light pole drawing/ detail specification enclosed herewith are for reference only. CONTRACTOR can offer better optimised designs which shall conform to the requirements of the specifications.
- 2.19 Protection shall be provided against any type of mischief/ pilferage attempts on an component. It shall be responsibility of the CONTRACTOR to find solution to such attempts during the operation period.

### **3.0 APPLICABLE CODES AND STANDARDS**

- 3.1 All the equipment and systems shall conform to the latest applicable National and International standards.
- 3.2 The design, manufacture, installation, testing, commissioning and performance of all the equipment and system shall comply with all currently applicable statutes, regulations and safety codes in the locality where the equipment will be installed. Nothing in this specification shall be construed to relieve the CONTRACTOR of his responsibility.

#### **4.0 DESIGN CRITERIA**

- 4.1 For illumination the design should be considered for 10mX5m grid size as shown below;



- 4.2 Average LUX level should not be less than 4 LUX as per IS 1944 standard and NLC 2010.
- 4.3 Maintenance factor should be considered as 0.8 while doing design calculation
- 4.4 Lighting design shall be performed using latest version of DiaLux Software (Version 4.12)/ Original Equipment Manufacturer (OEM) validated software. The Validation Report validated from Accredited Authority shall be submitted along with the BID.
- 4.5 **POLE DESIGN**
- 4.5.1 The GI Swaged tubular Poles shall be designed to withstand the maximum wind speed of 180 kmph as per IS 875. The top loading i.e. area and the weight of fixtures are to be considered to calculate maximum deflection of the pole and the same shall meet the requirement of BS EN 40-3-3:2013.
- 4.6 **CIVIL DESIGN**
- 4.6.1 All the civil foundation design shall be suitable for the Seismic requirement of Guwahati as per latest IS as the city of Guwahati falls in the Seismic Zone-V.
- 4.6.2 The design shall also consider the maximum wind speed of 180 kmph as per IS 875.
- 4.6.3 Grade of concrete to be used shall be M20 (1:1.5:3) and grade of reinforcement steel shall be Fe 500 or Fe415.

#### **5.0 PROJECT WORK SYSTEM**

- 5.1 The Light Pole to be installed under Project Jyoti shall consist of a Civil Foundation, Galvanized Iron swaged Tubular Pole with Light mounting arm, LED Luminaire, Advertisement Kiosk, CRCA Junction Box with 24 hr time switch and ELMCB, Connecting flexible cable with dressing accessories/ Supports/ HDPE pipe laid buried, Earthing wire, hardware and other accessories as required.
- 5.2 The Steel tubular Pole with civil foundation and LED Luminaire shall be located at the plot premises of the Owner connected after the Consumer Tariff meter from DISCOM.

- 5.3 The connection for the street light shall be tapped directly from the outgoing of the DISCOM Tariff meter or from the main incomer to the Distribution Board (DB) after the meter at the Consumer's premise through a Junction Box with flexible cable of 1.1 kV grade, PVC insulated three core 2.5 sq.mm stranded copper conductor.
- 5.4 The CRCA Junction Box (JB) shall consist of a 6A, 30mA sensitivity, 10 kA Double Pole (DP) ELMCB along with a 24 Hr manual Time Switch having a contact rating of 5A. The door of the JB shall have locking and sealing arrangement to enable the CONTRACTOR to seal the JB after setting the time in the time switch. The junction box shall be located as close as to the Owner's DISCOM tariff meter/ Main Distribution Board.
- 5.5 The Pole and the junction box shall be earthed with 8 SWG GI Wire and connected to the earthing point at the tariff meter or the Incoming Distribution Board of the premises. The wire can be laid and dressed along with the power cable.
- 5.6 LED shall be earthed with the third core of the 3 Core power cable connected directly at the JB earthing.
- 5.7 The connecting cable between pole and the JB shall be routed either on the wall, ceiling, compound wall etc. duly dressed with GI saddle spacers/ PVC cable Clip at every 500mm or laid in the 20mm HDPE pipe buried 500mm below the ground level. Wherever the cable is laid buried, proper marker shall be provided to identify the route and to avoid accidental digging of the cable.
- 5.8 One DWC/ HDPE flexible pipe of suitable length ( min 1m) shall be provided through the foundation into a hollow pole for entry of power cable into the pole. The cable shall either be laid inside the pole or through a HDPE pipe laid and dressed along the whole length of the pole.
- 5.9 In case the cable is to be taken overhead up to the pole, proper supporting arrangement with minimum two numbers GI support shall be provided to prevent sagging of the cable and to support it in case of heavy wind.
- 5.10 Average length of the power cable and the earthing wires shall be 15m. The cables shall not hang overhead.
- 5.11 All the materials/ equipment/ accessories of the above components of the Project Jyoti shall conform to the relevant IS standard with its latest amendments.
- 5.12 The design, manufacture, installation, testing, commissioning and performance of all the equipment and system shall comply with all currently applicable statutes, regulations and safety codes in the locality where the equipment will be installed.
- 5.13 For all items or components, not covered by the present version of such Indian Standards, the CONTRACTOR shall produce sufficient technical information so as to enable GSCL to have a technical evaluation through competent agencies.

**6.0 TECHNICAL SPECIFICATION ON LED LUMINAIRE**

**TABLE NO: 1- List Of Standards**

| <b><u>S. No.</u></b> | <b><u>Brief Title</u></b>   | <b><u>IS/IEC Code</u></b>          |
|----------------------|---|------------------------------------|
| 1.                   | Testing procedure of photometric testing for LED Luminaires   | LM 79                              |
| 2.                   | Testing procedure on the lifespan of LED Luminaires   | LM 80                              |
| 3.                   | National Lighting Code  | SP72                               |
| 4.                   | Method of Measurement of Lumen Maintenance of Solid State Light (LED) Sources   | IS:16105 – based on IES-LM-80-2008 |
| 5.                   | Method of Electrical and Photometric Measurements of Solid-State Lighting (LED) Products                                | IS:16106 – based on IES-LM-79-2008 |
| 6.                   | Limits of Harmonic Current Emissions  | IS 14700-3-2                       |
| 7.                   | DC or AC supplied electronic control gear for LED modules - Performance requirements                                    | IEC 62384                          |
| 8.                   | Lamp control gear: Particular requirements for DC or AC supplied electronic control gear for LED modules                | IEC 61347-2-13                     |
| 9.                   | Environmental Testing: Tests – Test Db: Damp heat, Cyclic (12h+12h cycle)   | IEC 60068-2-38                     |
| 10.                  | Electro Magnetic compatibility (EMC)- Limits for Harmonic current emission-- (equipment input current ≤ 16 A per phase) | IEC 61000-3-2                      |
| 11.                  | Equipment for general lighting purposes - EMC Immunity requirements   | IEC 61547                          |
| 12.                  | LED Modules for General Lighting-Safety Specifications  | IEC 62031                          |

|     |  |                            |
|-----|--|----------------------------|
| 13. | Degrees of Protection provided by enclosures (IP Code)   | IEC 60529                  |
| 14. | Particular Requirements - Fixed general purpose Luminaires/ Specification for Luminaires   | IEC 60598-2-1/<br>IS10322  |
| 15. | General Lighting - LEDs and LED modules – Terms and Definitions/ General lighting – Light emitting diode (LED) products and related equipment –Terms and definitions | IS:16101 / IEC TS<br>62504 |
| 16. | LED Modules for General Lighting - Safety Requirements   | IS:16103(Part1)            |
| 17. | LED Modules for General Lighting - Performance Requirements  | IS:16103(Part2)            |
| 18. | Safety of Lamp Control Gear - Particular Requirements of D.C. or A.C. Supplied Electronic Control gear for LED Modules   | IS:15885(Part2/<br>Sec13)  |
| 19. | Luminaire Performance – Particular Requirements – LED Luminaire  | IS 16107-2-1               |

## 6.2 **Environmental Conditions**

The average atmospheric condition during the year is mentioned below. The equipment shall be designed to work in such environmental conditions:

- (a) Maximum ambient air temperature: 45° C
- (b) Minimum ambient air temperature: 5° C
- (c) Max. Relative humidity: 90%
- (d) Atmosphere: Dusty and Humid
- (e) Rainfall data:1600 mm
- (f) The equipment shall be suitable to sustain and work in the humid and dusty atmosphere.

6.3 The luminaire shall work on single phase three wire system (phase, neutral & earth).

6.4 The luminaire light output (lumen) shall be constant and shall be able to withstand allowable supply source voltage variations/ fluctuations, spikes and harmonics.



- 6.5 The Luminaire shall have a sturdy and corrosion resistant high pressure Die cast Aluminium alloy housing with weatherproof gasket for lamp and control gear accessories. The Housing shall be Epoxy coated, without any cracks or through holes, made in a single piece of die-cast LM6 aluminium alloy. The luminaire shall be totally enclosed, dust tight and water proof.
- 6.6 Heat sink used should be aluminium extrusion having high conductivity. The dimensions of luminaires shall be optimum and adequate to permit sufficient heat dissipation, through the body itself, so as to prevent abnormal temperature rise inside the lantern and consequential damage to the cover and gasket materials, LEDs, lenses and electronic drivers. Heat sink must be thermally connected to MCPCB/ LED light source.
- 6.7 The Luminaire housing shall have single entry suitable for termination of 3C X 2.5 sqmm copper conductor PVC insulated flexible Cable with Flexible Cable Glands
- 6.8 The optical system shall consists of individual poly carbonate lenses on high power LEDs designed & tested to achieve street lighting distribution from the LED lantern. These lenses provided for individual LEDs are to be fixed on lens plate in order to have consistent light distribution from luminaires. Luminaires should conform to the photometric Distribution / requirements of Cut-Off / Semi Cut – off light distribution and optics as classified in IS 1944.
- 6.9 Suitable number of LED shall be used in the luminaires. The manufacturer shall submit the proof of procurement of LEDs from OEMs at the time of testing along with lens test report
- 6.10 The Luminaires shall be provided with high tensile heat resistant toughened glass of minimum 0.8mm thickness or UV resistant polycarbonate cover fixed with stainless Steel screws.
- 6.11 An extruded silicon loop gasket shall be provided in the lantern body to ensure a weather proof seal between the cover and the metal housing to exclude the entry of dust, water, insects, etc. Luminaire should conform to degree of protection of IP 66 or above. Felt gasket will not be accepted. The test report from NABL accredited laboratory shall be submitted along with the technical proposal/ Bid.
- 6.12 Luminaire shall be enclosed in an **aesthetically designed** housing with corrosion resistant polyester powder Coating after phosphor-chromate treatment.
- 6.13 Project Jyoti, Name of the CLIENT, Year of Manufacture, Batch No., Serial Number or Identification No. Luminaire Manufacturer's Name / Logo, Wattage and Frequency should be embossed on the housing.
- 6.14 All Luminaires shall conform to RoHS/CE/ERTL/ERDI requirements.
- 6.15 LED luminaires, should conform to the various National / International standards for safety & performance. Manufacturer should provide test reports as per LM 79 & LM80. The test report from NABL accredited laboratory shall be submitted along with the technical proposal/ Bid for LED as well as Luminaires.

- 6.16 Luminaires should conform to the IS standards for Safety & Performance and test certificates as per IS 16107 should be provided by the manufacturer.
- 6.17 The electrical component of the LED and LED driver must be suitably enclosed in separate sealed unit to function in environment conditions mentioned above.
- 6.18 All the connecting wires inside the Luminaire shall be low smoke halogen free, fire retardant cable.
- 6.19 Adequate protection against Overloading, Short Circuit, Over Voltage, Over temperature, Under Voltage, String Open shall be provided within the Luminaires.
- 6.20 Design of the thermal management shall be done in such a way that it shall not affect the properties of the diffuser.
- 6.21 All the material used in the luminaries shall not contain any toxic material/ metal like mercury; shall be halogen free and fire retardant confirming to relevant standards.
- 6.22 The control gear shall comply with the provisions of IEC 61347-2-13, IEC 62031 and IEC 62384 as appropriate.
- 6.23 Surge protection: The CONTRACTOR shall provide surge protection arrangement to protect the luminaire from switching surges which are expected/ prevalent in supply networks. External arrangements in weather proof (IP66) enclosure shall be provided if the Luminaires donot have such protections inbuilt. No extra charge will be payable to the Contractor for this work. No claim for failure of Luminaires, on account of voltage surges will be considered.
- 6.24 The Luminaires shall be suitable for operation within the input supply voltage range specified. The driver of the Luminaires should be able to sense and cut-off power to the light in case of phase-to-phase/ 440 V fault. No claim in this regard shall be considered.
- 6.25 The lighting fixtures offered shall comply with the data sheet attached in Annexure 1.
- 6.26 The luminaire shall have a warranty period of 2 years and additional years of AMC period as decided.
- 6.27 **Testing Of Luminaire**
- 6.27.1 The Routine test on each of the offered Luminaries shall be carried out by the CONTRACTOR before dispatch. Following tests shall be carried out as Routine tests by the CONTRACTOR for the offered Luminaries;
- (a) Visual and Dimensional check
  - (b) Checking of documents of purchase of LED
  - (c) Insulation resistance test

- (d) HV test
- (e) Reverse polarity

6.27.2 The Acceptance test shall be carried out by GSCL or GSCL's Representative on a sample of the lot offered for Acceptance. The Lot shall be different from the lot from which the Type test samples have been drawn. The cost of the testing shall be borne by the CONTRACTOR. Following tests shall be carried out as Acceptance tests by the CONTRACTOR for the offered Luminaries;

- (a) Visual and Dimensional check
- (b) Checking of documents of purchase of LED
- (c) Insulation resistance test
- (d) HV test
- (e) Over voltage protection
- (f) Surge protection
- (g) Reverse polarity
- (h) Lux measurement
- (i) Test for IP 66 protection

6.27.3 Following Type tests reports shall be provided by the CONTRACTOR for the offered Luminaries along with the BID;

- (a) Resistance to humidity
- (b) Insulation resistance test
- (c) HV test
- (d) Over voltage protection
- (e) Surge protection
- (f) Reverse polarity
- (g) Temperature rise Test
- (h) Ra (Colour Rendering Index) measurement test
- (i) Lux measurement
- (j) Fire retardant Test

- (k) Test for IP 66 protection
- (l) Endurance Test,
- (m) Life Test
- (n) Photometric Measurements Test Report (IES LM 79)
- (o) LED Lumen Maintenance Test Report (IES LM 80)
- (p) Vibration test as per ANSI
- (q) Drop Test

## **7.0        TECHNICAL SPECIFICATION ON LED DRIVER**

- 7.1        IC (Integrated circuit) shall be of industrial grade or above.
- 7.2        Metallic film / Paper / Polyester Capacitor shall be rated for a sustained operating at temperature of 105 Degree C.
- 7.3        The resistors shall be preferably made of metal film of adequate rating. The actual rating versus loading shall be by a factor of 3.
- 7.4        The junction temperature of the Switching devices such as transistors and MOSFETs etc. shall not exceed as specified in the Data Sheet
- 7.5        The protective cum adhesive coating used on PCBs should be clear and transparent and should not affect colour code of electronic components or the product code of the company.

## **8.0        TECHNICAL SPECIFICATION OF LIGHT POLE**

- 8.1        The Product should be designed for the specific climatic and environmental conditions of the region to ensure full durability and safety throughout its designed life.
- 8.2        The GI lighting pole shall be swaged type tubular type as indicated in the enclosed drawing and IS 2713:1980. The lighting pole and brackets shall be of GI (medium gauge) material. The material should be of adequate thickness and durable.
- 8.3        The pole shall be of 5 m height above the ground with 1m tubular brackets for fixing the LED street lights
- 8.4        The poles shall be hot dip galvanized with seven tank process as per IS 2629:1985 / IS 2633:1986 / IS 4759:1996 standards with average coating thickness of 65 micron. The galvanizing shall be done in single dipping. The zinc Ingot raw material shall be 99.99% pure and procured from reliable sources with Quality Test Certificates.
- 8.5        The pole manufacturing & galvanizing unit shall be ISO 9001: 2000 & ISO 14001 certified to ensure consistent quality & environmental protection.
- 8.6        All the Poles shall be designed to withstand the maximum wind speed of 180 kmph as per IS 875. The top loading i.e. area and the weight of fixtures are to be considered to calculate maximum deflection of the pole and the same shall meet the requirement of BS EN 40-3-3:2013.
- 8.7        The pole shall be designed to withstand the earthquake as per the provisions of the relevant BIS/other standards related to the urban location in the State of Assam.
- 8.8        The pole shaft shall be provided with the rigid flange plate of suitable thickness as indicated in the drawing with provision for fixing foundation bolts. This base plate shall be fillet welded to the pole shaft at two locations .i.e. from inside and outside.
- 8.9        The welding shall be carried out conforming to approved procedures. The welding shall be done as per qualified process approved by Third Party Inspection agency.

- 8.10 The Poles shall be bolted on a pre-cast foundation with a set of foundation bolts for greater rigidity.
- 8.11 Earthing of each pole and electrical components shall be in accordance with the latest edition of IS 3043 and CEA Guidelines. Two nos. Earth Boss shall be provided at the bottom of the pole (diagonally opposite) suitable for connecting min 8 SWG GI earth wire for earthing of the poles.
- 8.12 All the material/equipment/accessories shall be supplied with manufacturer's test certificates.
- 8.13 Detailed pole structure will be as per drawing.

**9.0 TECHNICAL SPECIFICATION ON CIVIL POLE FOUNDATION**

- 9.1 The structure should be designed for the specific climatic and environmental conditions of the region to ensure full durability and safety throughout its designed life.
- 9.2 In the design of the structure, the relevant BIS/other standards relating to seismic forces must be followed as in the seismic zone-V.
- 9.3 The structural design should be considered all other loads including severe most expected wind load (Not less than 180kmph).
- 9.4 **Structural Certificate from structural engineer/ firm over the proposed design will be necessary before installation of the structure.**
- 9.5 Minimum requirement for Civil Foundations for the Lighting Pole are as follows;
- (a) Depth of the foundation considered is 1200 mm minimum.
  - (b) Plan dimensions of footing considered is 900mm x 900mm having depth D=200 mm Minimum.
  - (c) Steel in foundation base in both directions considered is T 10 @ 150 mm c/c.
  - (d) Size of base plate considered is 250 mm X 250 mm having thickness 12 mm.
  - (e) Four anchor bolts of 16mm dia and 700 mm total length.
  - (f) Grade of concrete to be used considered is M20 (1:1.5:3) and grade of reinforcement steel considered is Fe 500 or Fe415.
  - (g) Main vertical reinforcement in 300 mm x 300 mm size pedestal are considered with 4 nos. bars of 12mm dia bars and shear reinforcement (stirrups) shall be 8 mm dia bars at 200 mm c/c.
  - (h) 20NB Flexible HDPE Pipe of 1m length shall be embedded to draw the cable.
  - (i) This foundation design of pole will be applicable for all types of soils i.e. soft soil, medium soil and hard soil.

- (j) 20mm Flexible DWC/ HDPE Pipe of 1m length shall be embedded to draw the cable from the power cable.

## **10.0 OPERATION & MAINTENANCE**

- 10.1 The CONTRACTOR shall be responsible for maintaining/ repair/ replacement, **Comprehensively**, of all the Light Poles and its accessories installed by it in the allocated area during the tenure of the contract.
- 10.2 O&M shall be initiated for a set of Poles from the next day of the issue of the completion certificate by GSCL for that particular set of Poles after due inspection and testing.
- 10.3 The CONTRACTOR shall install a Help Desk minimum 30 days in advance before the first set of Poles is completed.
- 10.4 The payment for the O&M shall be as per agreed in the Contract for the entire tenure per pole.
- 10.5 The Manpower and accessories required for O&M shall be provided by the CONTRACTOR during relevant contract period.
- 10.6 Adequate number of teams consisting of One Electrical technician having minimum 6 years experience and one assistant shall be provided initially right at the beginning of the contract and the same shall be augmented during the course of the contract to maintain the service level benchmarks. Replacement for the teams shall be well planned during the scheduled offs and leaves.
- 10.7 Any complaint for failure of luminaire due to lack of earthing, SPD, connector and loose connections shall be to CONTRACTOR's Account.
- 10.8 The CONTRACTOR shall take adequate insurance to cover themselves for the cost of O&M during the tenure of the contract.
- 10.9 Any replacement required owing to case of theft shall be to Consumer's account.
- 10.10 The CONTRACTOR shall make provision for adequate number of minimum 3m high Self Supporting Ladder with anti skid pads at the footings along with sets of all the required tools and instruments, duly calibrated from NABL Accredited Laboratory, to meet the maintenance requirements as per service benchmark.
- 10.11 All the electrical parameters and illuminance level of the sample Light Poles shall be monitored with calibrated Power Analyzer and Lux meter and documented for records and analysis. Samples shall represent all the Lots appropriately.
- 10.11.1 All the necessary modifications that are required to be carried out for the efficient working of the system including network and Luminaires and minimise the breakdowns and issues shall be carried out by CONTRACTOR from time to time at its own cost.

10.12 The maintenance work shall be carried out without disturbing the Neighbors and surrounding area of the Consumer and with proper consent to work from Consumer.

10.13 **Helpdesk Setup**

The CONTRACTOR shall set up a centralized helpdesk to address the O&M for the project for entire Contract period with the following;

- (a) A web based **Complaint Management System (CMS)** shall be installed which should enable users to log complaints and monitor its status & closure. The CMS shall be updated regularly with new updates/ patches to improve the performance during the contract period.
- (b) A **Toll Free Complain Number, a Mobile no for receiving SMS and an E-mail ID** exclusively for the Project Jyoti shall be finalized in consultation with GSCL. Language Capabilities : Assamese, Hindi and English;
- (c) The help desk shall **operate from 8 am to 8 pm on all days of the week** to assist and guide the users.
- (d) The help desk shall handle user queries and issues relating to implemented solution
- (e) The helpdesk shall also ensure that users can log calls and complaints for any technical issues they face through web interface like email and on the portal of GSCL.
- (f) The helpdesk shall have Interactive Voice Response (IVR) system for first level of call segregation;
- (g) A Standard Operating Procedures (SOP) for O&M process shall be created by the CONTRACTOR from logging of request to closure of the request. The SOP shall address call prioritization guidelines, problem security codes and escalation procedures etc. in consultation with GSCL ;
- (h) All the complaints and work carried out by the CONTRACTOR shall be logged in the system with a unique service request.
- (i) The application shall be accessible to all users through GSCL portal for logging Service Requests;
- (j) The CONTRACTOR shall allocate Customer ID and Serial No to the Pole-Lamp combination and maintain records of each one of them during the Contract period.
- (k) A Report containing the operational Status of all the Light Poles, complaints received and resolved; Preventive maintenance schedule and status, Stock of spares, man power update, etc shall be submitted to GSCL on a weekly or monthly basis as decided by GSCL.



- (l) The call statistics will be analyzed every quarter after Go-Live and the number of Customer Care Executives may be ramped up or down accordingly on a week's notice

#### 10.14 **Service Level Benchmark**

A service Level Benchmark for evaluating the performance of the CONTRACTOR shall consist of the following;

- (f) **Resources** – The CONTRACTOR shall maintain O&M team, tools and calibrated measuring and verification instruments as specified above from the day one of the contract. In case the required resources are not deployed on time, a penalty of **Rs.5000/- per day** shall be imposed **for the first week** and the same shall be doubled in the subsequent weeks till adequate resources are deployed.
- (g) **System Uptime** – The CONTRACTOR shall maintain sufficient resources and **achieve minimum uptime of 95% on yearly basis** (year period to be decided by GSCL) for the entire system, excluding the period of non-availability of power supply. The Uptime percentage shall be calculated based on the following formula;

$$\text{Uptime \%} = (1 - \text{Downtime Hrs} / \text{Total Operational Hrs}) * 100$$

Total Operational Hrs is calculated based on lamp Burning Hrs per day - 12 Hrs.

Downtime Hrs = No of Operational Hrs. the Lamp is unavailable for operation from the time of Logging the Request by the consumer till the Request is closed in the system by the CONTRACTOR.

In Case the CONTRACTOR is not able to maintain the Uptime of the Light Poles for Two Consecutive years, GSCL may consider termination of the Contract and replacing the

- (h) **Energy Consumption** – The energy consumed by the lamp shall not exceed more than as committed in the design report. CONTRACTOR shall **guarantee the total energy consumption** of the system for all the poles with respect to its design offered. The same shall be monitored and reported on regular basis as decided by GSCL. **Any excess energy charges more than the guaranteed consumption shall be recovered from the CONTRACTOR.** Any action required for mitigating the excess energy consumption may be immediately be taken up by the CONTRACTOR with the information to GSCL.

**The Energy consumption of all the poles can be ascertained based on the energy measurements carried on the samples from each LOTs of LED Luminaires supplied on Half yearly basis**

- (i) **Lux Level** – CONTRACTOR shall **guarantee the Lux level based on Design output and offered Luminaire for each pole.** There shall not be any

reduction of the Lux level during the entire tenure of the contract period beyond the allowable depreciation curve. Illuminance of all pole shall be monitored regularly and reported to GSCL by measuring the Lux Levels of the Sample LED Luminaires from all the LOTs / Batches atleast once a year. Any reduction in the lux level shall be immediately investigated and corrective action shall be taken with information to GSCL.

- (j) In case a reduction in the Lux levels are established, all the Luminaires of the same LOT/ Batch offered in the project shall be investigated and rectified/ replaced if found faulty by the CONTRACTOR at its own cost within a period of time as may be agreed by GSCL.
- (k) **Complaint Resolution** - All the complaints shall be redressed within 24 working hrs. In case the service provider fails to comply with the same a penalty of Rs. 100/- per day per complaint shall be imposed for a period of 7 days after which the amount will be doubled for the next subsequent weeks till the complaint is resolved to the satisfaction of the owner.
- (l) At any given time the CONTRACTOR shall maintain spares equivalent to minimum 1% of the total number of lights installed. Failing to maintain spares and causing delay in resolution of the complaint shall be penalized as indicated above.
- (m) Cleaning of the luminaire cover shall be taken up once in every quarter and record shall be maintained and reported to GSCL.

## **11.0 QUALITY CONTROL PLANS**

- 11.1 The Quality Control Plan shall list and define in sequential order all process control activities, inspection and tests proposed to be performed on the equipment/ material starting from component procurement and from testing stages to product dispatch. The Quality Control Plan shall indicate and identify the applicable standards, detailed description with diagram the procedure, acceptance criteria, extent of check and record to be generated.
- 11.2 The CONTRACTOR shall within Fifteen (15) days of placement of order submit the following information to GSCL.
  - (n) Descriptive list of the raw material as well as bought out accessories and the names of sub suppliers selected from those furnished along with the Specification.
  - (o) Type test certificates of the raw material and bought out accessories.
  - (p) Quality Assurance Plan (QAP) with holds points for GSCL'S inspection. The QAP and hold points shall be discussed between GSCL and the CONTRACTOR before the QAP is finalized.

## **12.0      INSPECTION**

- 12.1      The inspection may be carried out by GSCL or his representative at any stage of manufacturing. The CONTRACTOR shall grant free access to GSCL/ its representative/s at a reasonable notice when the work is in progress. Inspection and acceptance of any equipment under this specification by GSCL shall not relieve the CONTRACTOR of his obligation of furnishing equipment in accordance with the specification and shall not prevent subsequent rejection if the equipment is found to be defective.
- 12.2      The CONTRACTOR shall keep GSCL informed in advance regarding the time of starting and progress of manufacture of all the equipment in its various stages so that arrangements could be made for stage inspection, if desired by GSCL.
- 12.3      No material shall be dispatched from its point of manufacture unless the material has been satisfactorily inspected and tested and approved by GSCL.
- 12.4      The CONTRACTOR shall, during inspection/ at any stage as sought by GSCL, will furnish test certificates for all equipment including bought out items as included in this BID. However, GSCL reserves the right to insist for witnessing the acceptance/routine testing of bought out items.
- 12.5      The CONTRACTOR shall communicate to GSCL the details of all testing programme at least Three (3) weeks in advance. GSCL reserves the right to waive the inspection at any stage.
- 12.6      The CONTRACTOR shall keep all his testing instruments duly calibrated against Standard Meters at designated Accredited Laboratory not earlier than 6 months from the date of test of the equipment, covered under this specification. Calibration certificates shall be made available during inspection. The calibrating instruments used as standard shall be traceable to National/ International standards.
- 12.7      For Lighting Pole installations, a joint inspection by GSCL Authorities; Technical Officer, Project Manager and team of the CONTRACTOR; along with the Consumer shall be carried out before certification and commencing for operation.
- 12.8      The completion certificate shall include minimum the following;
- (a)      Photograph of the complete installation from Foundation to LED; cable dressing and supports; JB with time switch and ELMCB.
  - (b)      Test Certificate of LED Luminaire
- 12.9      Following Field Test shall be carried out on the system
- (a)      Visual Inspection
  - (b)      Insulation resistance of the system

- (c) Power consumption of individual Luminaire and the System for a particular road.
- (d) The lux level in accordance with NLC.

### **13.0 HAND-OVER OF THE SYSTEM AT THE END OF CONTRACTUAL PERIOD**

13.1 The CONTRACTOR shall supply to the GSCL the following before the expiry of the contract:

- (a) Information relating to the current services rendered and data relating to the performance of the services; Entire documentation relating to various components of the Project, any other data and confidential information related to the Project;
- (b) All other information (including but not limited to documents, records and agreements) related to the products & services concerned with the project to enable GSCL and its nominated agencies, or it's replacing CONTRACTOR to carry out due diligence in order to have transition of the Project Services.
- (c) The CONTRACTOR shall not retain any data, security codes, and other confidential documents including any type of customer survey data with them.

### **14.0 SYSTEM DOCUMENTS, USER DOCUMENTS**

14.1 The Contractor will provide all project related documents. This documentation should be submitted as the Project undergoes at various stages of implementation. Indicative list of documents include:

- (a) Project Commencement Documentation: Project Plan in giving out micro level activities with milestones & deadlines.
- (b) Design calculations
- (c) Location drawings for poles
- (d) Equipment Manuals: Original Manuals from OEMs.
- (e) Training Material: Training Material will include the presentations used for trainings and also the required relevant documents for the topics being covered. Training registers should be submitted for same.
- (f) User Manuals: For all the application software modules, required for operationalization of the system.
- (g) Standard Operational Procedure (SOP) Manual: The CONTRACTOR shall be responsible for preparing SOP Manual relating to operation and maintenance of each and every service as mentioned in the RFP. The draft process (SOP) document shall be formally signed off by GSCL before completion of Final

Acceptance Test. This SOP manual will be finalized by the Contractor within 2 months of operationalization, in consultation with GSCL and formally signed off by GSCL.

- 14.2 The CONTRACTOR will ensure upkeep & update all documentation and manuals during the Contract period. The ownership of all documents, supplied by the CONTRACTOR, will be with GSCL. Documents shall be submitted in two copies each in printed (duly hard bound) & in softcopy formats.

**15.0 ANNEXURE- 1**

**TABLE NO: 1 - LUMINAIRE DATA SHEET**

| Sr. No. | Parameters                  | Requirements / Value  |
|---------|-----------------------------|---|
| 1.      | Type                        | LED Luminaries complete with all accessories including driver, internal wiring with LSHF wires, etc., for Street Lighting |
| 2.      | LED chip make               | Nichia, Philip lumiled, Osram, CREE   |
| 3.      | Rated Voltage               | 230V  |
| 4.      | Operating Voltage Range     | 140-280 volt AC. But luminaries shall be tested for 100V to 300 V AC  |
| 5.      | Frequency                   | 50Hz $\pm$ 3%   |
| 6.      | LED system wattage          | $\leq$ 16 watt (inclusive of all losses)  |
| 7.      | Driver Type                 | Constant Current based Electronic Driver  |
| 8.      | System Power Efficiency     | $\geq$ 90%  |
| 9.      | Operating Temperature Range | -20 Deg C to + 50 Deg C   |

|     |  |   |
|-----|--|---|
| 10. | Operating Humidity                                       | 10% to 90% RH   |
| 11. | LED Efficacy   | $\geq 130$ Lm/Watt  |
| 12. | System efficacy  | $\geq 100$ Lm/Watt  |
| 13. | Colour Temperature                                       | $\geq 5500$ K.  |
| 14. | LED Drive Current  | $\geq 350$ mA < 750 mA  |
| 15. | LED Wattage  | 1-3 W   |
| 16. | Total Lumen Output                                       | $\geq 1600$ lumens  |
| 17. | LED Beam Angle   | Fully Cut-Off   |
| 18. | Control Gear   | Prewired with low smoke halogen free, fire retardant e beam cable up to terminal block. Fuse protection shall be provided inside. |
| 19. | Operating Hours  | Dusk to Dawn (max 12 Hrs.)  |
| 20. | Power Factor   | >0.90   |
| 21. | Colour Rendering Index                                   | >70   |
| 22. | Rated Minimum LED Life                                   | 50,000 Burning Hours (With only 30% Lumen Degradation or 70% Lumen maintenance)   |
| 23. | Driver Life  | >20000 Burning Hours  |
| 24. | Luminaries body temperature after 12 hours of continuous | $\leq 30$ Deg C from ambient  |

|     |                                  |   |
|-----|----------------------------------|---|
|     | operation                        |   |
| 25. | Heat Sink Temperature            | ≤ 15 deg C from ambient   |
| 26. | Solder point temperature         | < 70 Deg C  |
| 27. | Total Harmonics Distortion (THD) | <10%  |
| 28. | Construction                     | High power SMD and LED must be mounted on Copper MCPCB for high thermal conductivity and fastest heat transfer from the LED junction  |
| 29. | IP Protection                    | IP66 or more; no water stagnation anywhere  |
| 30. | Luminary Housing                 | Pressure Die Cast Aluminum (grade 5000 or similar) housing with corrosion resistant polyester powder coating & safety as per IEC 60598 / IS 10322.<br><br>Mounting bracket with aiming & locking facilities.<br><br>Large surface area with fins to dissipate the heat to ambient air |
| 31. | Control Gear                     | Prewired with low smoke halogen free, fire retardant e beam cable up to terminal block. Fuse protection shall be provided inside.   |
| 32. | Wire                             | The connecting wires used inside the luminaries, shall be low smoke halogen free, fire retardant e-beam cable and fuse protection shall be provided in input side.  |
| 33. | Heat Sink                        | Well-designed thermal management system with defined heat sink - Aluminium extrusion  |
| 34. | Clip / Fastners                  | Corrosion free/ Stainless steel.  |

|     |                                      |   |
|-----|--------------------------------------|---|
| 35. | Materials                            | Halogen free and fire retardant confirming to UL94.   |
| 36. | Optics                               | Secondary lens array should be provided for optimized roadway photometric distribution. Lens material should be optical high grade PMMA with more than 90% light transmittance. |
| 37. | IK protection for Optic Cover        | IK07  |
| 38. | Photometric measurements             | LM-79/IS16105.  |
| 39. | Minimum Surge Protection             | >10 kV  |
| 40. | Protection Required in Driver Module |   |
| a.  | Short Circuit                        | Yes; Constant current limit mode.   |
| b.  | Over Voltage                         | Yes;  |
| c.  | Over Temperature                     | Yes; Auto Shut Off.   |
| d.  | Under Voltage                        | Yes;  |
| e.  | String Open Protection               | Yes;  |



**16.0      APPROVED MAKES****TABLE NO: 2 – APPROVED MAKES**

| Sr.No | Description                  | Approved Make  |
|-------|------------------------------|--|
| 1.    | Swaged Lighting Pole         | BAJAJ/ PHILIPS/ VALMONT/ JINDAL POWER/ ASTER/ TRANSRAIL LTD.       |
| 2.    | LED Chip                     | CREE, OSRAM, NICHIA, PHILIPS LUMILEDS                              |
| 3.    | Lighting Fixtures            | PHILIPS/ WIPRO/ BAJAJ/ HAVELLS/<br>APPROVED BY A.P.W.D             |
| 4.    | Cable                        | UNIVERSAL/RPG/CCI/POLYCAB/ FINOLEX                                 |
| 5.    | Gland/Lugs                   | Dowells, Commet, Connectwell                                       |
| 6.    | MCB, ELCB Distribution Board | Schneider, Siemens, ABB. L&T, MDS, Hager, Havells                  |
| 7.    | Time Switch                  | L&T GIC, Siemens, Theaben, Protime, Schneider, Legrand, Hager, ABB |
| 8.    | HDPE Pipe                    | Rex, Gemini, Duraline  |
| 9.    | Junction Box                 | Any Branded or local make duly Type tested                         |

**17.0      TENDER DRAWINGS**

- 17.1      DRAWING NO: TCE.10477A-EL-4026-GL-40003-P0 – DESIGN OF STREET LIGHT POLE FOR PROJECT JYOTI
- 17.2      DRAWING NO: TCE.10477A-EL-4026-GL-40004-P0 – REINFORCEMENT DETAILS OF STREET LIGHT POLE FOUNDATION FOR PROJECT JYOTI
- 17.3      DRAWING NO: TCE.10477A-EL-4026-GL-40015-P0 – ELECTRICAL CONNECTION DETAILS OF LIGHT POLE FOR PROJECT JYOTI