Document No.: MAH-NAS-060-RFP-02



Nashik Municipal Smart City Development Corporation Limited (NMSCDCL)

Name of work: Request for Proposal for selection of Concessionaire for Implementing Smart LED Street Lights for ABD area under Nashik Smart City, Nashik on Design, Build, Finance, Operate and Transfer (DBFOT) Basis.

EMD Amount: Rs. 2,30,000/-

Tender Fees: Rs. 2000+SGST (9%) +CGST (9%)

Address:

The Chief Executive Officer, NMSCDCL, Nashik Municipal Corporation, Rajiv Gandhi Bhavan, Sharanpur Road, Nashik - 422001

E-mail: pmc@nashiksmartcity.in

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- 1 Though adequate care has been taken while preparing the RFP Document, the Bidders should satisfy themselves that the document is complete in all respects. Intimation of any discrepancy shall be given to this office immediately. If no intimation is received from any Bidder within seven days from the date of notification of RFP Document/ Issue of the RFP Document, it shall be considered that the RFP Document is complete in all respects.
- 2 The information contained in this RFP and subsequently provided to the Bidders (henceforth referred to as Bidder/s) verbally or in documentary form by Nashik Municipal Smart City Development Corporation Limited (henceforth referred to as NMSCDCL in this document) shall form the integral part of this RFP.
- 3 NMSCDCL reserves the right to modify, amend or supplement this RFP Document.
- 4 While this RFP Document has been prepared in good faith, neither NMSCDCL nor its employees or advisors make any representation or warranty, express or implied, or accept any responsibility or liability, whatsoever, in respect of any statements or omissions herein, or the accuracy, completeness or reliability of information, and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of this RFP Document, even if any loss or damage is caused by any act or omission on their part.
- 5 The issue of this RFP document does not imply that NMSCDCL is bound to select a Bidder or to appoint the Selected Bidder (as defined hereinafter) and NMSCDCL reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever.
- The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, uploading delivery fees, expenses associated with any demonstrations or presentations which may be required by NMSCDCL or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and NMSCDCL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation for submission of the Bid, regardless of the conduct or outcome of the Selection process.
- 7 This RFP is not an agreement or an offer by the NMSCDCL to the prospective Bidders or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in the formulation & submission of their Proposals pursuant to this RFP.
- 8 This RFP may not be appropriate for all persons, and it is not possible for the NMSCDCL and its employees to consider the objectives, technical expertise and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in this RFP, may not be complete, accurate, adequate or correct. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments and information contained in this RFP and obtain independent advice from appropriate sources. Information provided in this RFP to the Applicants may be on a wide range

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- of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law.
- 9 The NMSCDCL accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on the law expressed herein.
- 10 The NMSCDCL may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumption contained in this RFP.

Place: Nashik

List of Abbreviations

ABD	Area Based Development		
CCMS	Centralized Control and Monitoring System		
CEO	Chief Executive Officer		
CFL	Compact Fluorescent Lamp		
CSR	Common Schedule of Rates		
DPR	Detailed Project Report		
EE	Energy Efficient		
EIC	Engineer-In-Charge		
EMD	Earnest Money Deposit		
FTL	Fluorescent Tube Lights		
GPRS	Global Packet Radio Service		
GSM	Global System for Mobile Communication		
HPSV	High Pressure Sodium Vapor		
INR	Indian Rupees		
JV	Joint Venture		
LED	Light Emitting Diodes		
NMC	NMC Nashik Municipal Corporation		
NMSCDCL Nashik Municipal Smart City Corporation Limited			
LOA	Letter of Award		
MH	Metal Halide		
MoHUA	Ministry of Housing and Urban Affairs		
MSEDCL	Maharashtra State Electricity Distribution Company Limited		
MOU	Memorandum of Understanding		
M&V	Measurement & Verification		
NLC	National Lighting Code		
OEM	OEM Original Equipment Manufacture		
O&M	Operation and Maintenance		
RFP	Request for Proposal		
SCP	Smart City Proposal		
SPV	Special Purpose Vehicle		
THD	Total Harmonics Distortion		
GST	Goods and Services Tax		

GLOSSARY

The words and expressions beginning with capital letters and defined in this document shall, unless repugnant to the context, have the meaning ascribed thereto herein:

Amplication Intonvity	Use of software, hardware, and procedural methods to
Application Integrity	protect applications from external threats.
Application Security	Securing technology and managing the cost of controls and
Application Security	compliance.
Associate	Means, in relation to the Bidder, a person who controls, is controlled by, or is under the common control with such Bidder. As used in this definition, the expression 'control'
	means, with respect to a person which is a company or a corporation, the ownership, directly or indirectly, of more than 50% (fifty percent) of the voting shares of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person by operation of law.
Bid	As defined in Disclaimer
Bid Validity	120 (One Hundred and Twenty) days from the date of opening of Financial Bid or as extended in terms of this RFP
	Means the RFP and other documents including the Contract
Bidding Document	Agreement and its annexures to be provided by NMSCDCL pursuant to this RFP, as modified, altered, amended and clarified from time to time by NMSCDCL
Bid Document Fee Means the non-transferable fee to be paid by the	
Bidders	Means a Company or a Consortium that has submitted the Bid in response to this RFP. For avoidance of doubt, any reference to the Bidder includes its Associate, Holding Company, successors, executors and permitted assigns as the context may require
Bid Due Date	Means the last date for submission of Bid
Company means organization(s) incorporated in India under Companies Act, 1956 or Companies Act, 2013 including amendment thereto	
Consortium	means association of either 2 (two) or 3 (three) Companies that have entered into an Joint Bidding Agreement as prescribed in Form 10 of this RFP
The Selected Bidder who is responsible for designation and maintenance of the Project	

Concession Agreement	Means the energy saving performance contract to be entered into between NMSCDCL & NMC and the Concessionaire	
Contract	Means the Concession Agreement	
Concession Period	Means the 7.5 (Seven and a half) years including installation period of 6 months (extendable by 3 months with prescribed penalty) and remaining for O&M and energy savings payment	
Financial Bid	Means the financial quote provided by the Bidder in format in Annexure III under Envelope C prescribed in clause 3.19	
Financial Proposal	Means the Financial Bid	
Holding Company	Means as provided in Companies Act, 2013	
Key Personnel	Means the Personnel prescribed in Form 4	
Joint Bidding Agreement	Means the agreement to be submitted in the Bid by the Bidder which is a consortium in the format prescribed in Form 10	
Lead Bidder/ Lead Consortium Member	Means the consortium member who has been designated as such in the Joint Bidding Document	
LoA	Means the Letter of Award issued to the Successful Bidder	
Material Adverse Effect	Technical team to incorporate	
Project	Means the provision, installation, commissioning and O&M of LED streetlights in the ABD area of approx. 600 acres in the city of Nashik	
Project Company	Means the new company to be floated by the Successful Bidder, in case such Successful Bidder is a Consortium	
Scope of Work	Means the services to be provided by Concessionaire as detailed in Section IV	
Successful Bidder	Means the Bidder who is eligible for signing the Concession Agreement in terms of the Bidding Process	
Site	The area provided by NMC for the Project	
Statement of Legal Capacity	Means the statement as prescribed in Form 20	
Technical Proposal	Means the documents to be submitted by the Bidder in its Bid under Envelope B as prescribed in Clause 3.18	

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Section: I - Invitation for Proposal

1. Invitation for Proposal

NMSCDCL hereby invites Proposals for Provision, Installation, Commissioning and O&M of LED streetlights in the ABD area of approx. 600 acres in Nashik City. Bidder/ Agencies are advised to study this RFP document carefully before submitting their proposals in response to the RFP Notice. Submission of a proposal in response to this notice shall be deemed to have been done after careful study and examination of this document with full understanding of its terms, conditions and implications.

The complete bidding document has been published on https://mahatenders.gov.in for the purpose of downloading. The downloaded bidding document shall be considered valid for participation in the electronic bidding process (e-Tendering) subject to the submission of required tender/bidding document fee and EMD. Bidders who wish to participate in this bidding process must register on https://mahatenders.gov.in. For any type of clarifications, bidders can visit www.mahatenders.gov.in or contact help desk contact no. 01204200462, 01204001002 Mobile no. +919881044457, 8826246593, 9987912844, Email id-support-eproc@nic.in.

To participate in online bidding process, Bidders must procure a Digital Signature Certificate (Class - II) as per Information Technology Act-2000 using which they can digitally sign and encrypt their electronic bids. Bidders can procure the same from any CCA approved certifying agency, i.e. TCS, Safe crypt, Ncode, etc. Bidders who already have a valid Digital Signature Certificate (DSC) need not procure a new DSC.

- 1. A three-envelope selection procedure shall be adopted as stipulated in Para no.3.19 of this RFP.
- 2. Bidder (authorized signatory) shall submit their offer online in electronic formats for preliminary qualification, technical and financial proposal. However, tender document fees, and Earnest Money Deposit (EMD) should be deposited in the account details provided in the bid document.
- 3. NMSCDCL will not be responsible for delay in online submission due to any reason. For this, bidders are requested to upload the complete bid proposal, pay online EMD, Tender fee well advance in time so as to avoid issues like slow speed, choking of web site due to heavy load or any other unforeseen problems.
- 4. Bidders are also advised to refer Bidders Manual Kit available at https://mahatenders.gov.in for further details about the e-tendering process.

Request for Proposal for Selection of Concessionaire for Implementing Smart LED Street Lights for ABD area in Nashik City

Section: II - Key Events and Dates

2. Key Events and Dates

2.1. Dates

#	Information	Details
1	Date of issue of Bidding Document	11/01/2018 03:00PM
2	Last date of receiving the queries	17/01/2018 03:00PM
3	Pre-bid meeting	18/01/2018 03:00PM
4	Last date (deadline) for submission of bids online (Bid Due Date)	28/01/2018 03:00PM
5	Last date for submission of hard copy	29/01/2018 02:00PM
6	Date Time and Place of opening of Technical proposals	29/01/2018 03:00PM
7	Date Time and Place of opening of Financial proposals	To be decide after short listing based on Technical Evaluation.

2.2. Other Valuable Information Related to Bid

#	ltem	Description
1.	Earnest Money Deposit (EMD) to be paid online	Rs. 2,30,000/-
2.	Tender fees to be paid online	Rs. 2000 + CGST (9%) + SGST (9%)
3.	Bid Validity Period	120 (One Hundred and Twenty)days from the date of opening of Financial Bid
4.	Last date for furnishing Performance Security to NMSCDCL (By successful bidder)	Within fifteen(15) working days of the date of notice of award of the contract or prior to signing of the contract whichever is earlier or as intimated in the LOA issued by NMSCDCL
5.	Performance Security (Performance Bank Guarantee)	5% of the Estimated cost*. PBG amount shall be furnished by the Successful Bidder after issue of LoA by Nashik Municipal Smart City.
5.	Performance Security/Performance Bank Guarantee (PBG) validity period	Valid till 180(One Hundred and Eighty) days beyond the contract period. *Estimated cost will be disclosed to the successful bidder.
6.	Last date for signing contract	As prescribed in the LOA.

Request for Proposal for	Selection of Concess	ionaire for Implementing	Smart LED Street Lights	for ARD area in Nashik City

Section: III - Instructions to Bidders

3. Instructions to Bidders

3.1. Background

Ministry of Housing and Urban Affairs (MoHUA), Government of India (GOI), launched Smart City Mission to develop 100 cities throughout the country as Smart Cities and the Nashik municipal Corporation (NMC) had been selected as one of the Smart Cities by the MoUD. Accordingly, a Special Purpose Vehicle (SPV) needs to be established by the selected Smart Cities under the Company's Act 2013, for implementation of Smart City Mission. The SPV will plan, apprise, approve, release funds, implement, manage, operate, monitor and evaluate the Smart City projects for the area under 'NMC in accordance with Smart City Mission of the GoI and State Govt.

NMC established an SPV (a public limited company equally owned by NMC and Government of Maharashtra under the Section 66(A) & 66 (41A) of Maharashtra Municipal Corporation Act of 1949, named as Nashik Municipal Smart City Development Corporation Ltd. The Company is registered with Registrar of Companies, M/o Corporate Affairs under the provisions of the Company Act 2013.

3.2. Purpose

As a part of the Smart City Project, NMSCDCL is desirous of replacing the existing streetlights/floodlights in ABD area of approx. 600 acres in Nashik with suitable wattage for guaranteed Lux Levels by dimmable LED streetlights/floodlights in line with the specifications as provided in the Bidding Document. This document provides information to enable the Bidders to understand the broad requirements to submit their bids.

3.3. Cost of RFP

Prior to submitting the Bids, the Bidders shall pay Bid Document Fee using available net banking option/ credit card/ debit card on e-procurement portal of Govt. of Maharashtra i.e. https://mahatender.gov.in. The Bidders are advised to make online payment at least three days prior to Bid Due Date to avoid any banking transfer delays. The receipt towards payment shall be uploaded during the online submission of Bid document. It is clarified that the Bid Document Fee is non-refundable.

3.4. Change in Ownership

By submitting the Bid, the Bidder shall be deemed to have acknowledged and agreed that in the event of a change in control of the Bidder itself or an Associate whose Technical Capacity or the Holding Company whose Financial Capacity was taken into consideration for the purposes of Short Listing and Qualification under and in accordance with this RFP, the Bidder shall be deemed to have knowledge of the same and shall be required to inform the NMSCDCL and NMSCDCL forthwith along with all relevant particulars about the same and the NMSCDCL may, in its sole discretion, approve the same or disqualify the Bidder or withdraw the LOA from the Selected Bidder, as the case may be. In the event such change in control occurs after signing of the Concession Agreement but prior to financial close of the Project, it would, notwithstanding anything to the contrary contained in the Concession Agreement, be deemed to be a breach of the Concession Agreement, and the same shall be liable to be terminated without the NMSCDCL being liable in any manner whatsoever to the Concessionaire. In such an event, notwithstanding anything to the contrary contained in the Concession Agreement, the NMSCDCL shall be entitled to forfeit and appropriate the Bid Security or Performance Security, as the case may be, as damages, without prejudice to any other right or remedy that may be available to the NMSCDCL under the Bid Documents and/ or the Concession Agreement or otherwise.

3.5. Transfer of RFP

The Bidding Document is not transferable to any other bidder. The bidder who purchases the document and submits the Bid shall be the same.

3.6. Consortium and Joint Ventures

In case the Bidder is a Consortium, then the Members of the Consortium shall submit a joint Bidding Agreement (the Jt. Bidding Agreement), in a format provided at Form 10 Jt. Bidding Agreement, shall, inter alia:

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- Clearly outline, with a brief description, about the roles and responsibilities
 of each of the members of Consortium mainly with respect to the financial,
 technical and O&M matters, and roles and responsibilities of their respective
 Key Personnel;
- 2. Commit the minimum shareholding to be held by each Consortium Member;
- 3. Commit that each Consortium Member shall hold the committed shareholding directly and not through any subsidiary or Associate company;
- 4. Commit that the Lead Consortium Member shall directly, and not through any subsidiary or Associate company, hold minimum 51% (fifty one percent) equity stake from a commencement of the Concession Period to 2 (two) years from the date of commencement till the end of Concession Period;
- Commit that the Consortium Members shall directly, and not through any subsidiary or Associate company, hold minimum 20% (Twenty percent) equity stake throughout Concession Period and the Lead Consortium Member shall be the largest shareholder throughout Concession Period; and
- 6. Include a statement to the effect that Consortium
- 7. Members shall be liable jointly and severally for all obligations of the Concessionaire in relation to the Project
- 8. If the Bidder is Consortium, it shall, comply with the following additional requirements:
 - a. Number of members in the Consortium shall not exceed 3 (Three);
 - b. The Members of the Consortium shall nominate one member as the lead Member, who shall have equity share holding of at least 51%(Fifty one percent) of the paid up and subscribed share capital.

3.7. Completeness of Response

- I. Bidders are advised to study all instructions, forms, terms, requirements and other information in the RFP documents carefully. Submission of bid shall be deemed to have been done after careful study and examination of the RFP document with full understanding of its implications.
- II. The response to this RFP should be full and complete in all respects. Failure to furnish all information required by the RFP document or submission of a proposal not substantially responsive to the RFP document in every respect will be at the Bidder's risk and may result in rejection of its Proposal and forfeiture of the Bid EMD.

3.8. Proposal Preparation Costs

- I. The bidder shall submit the bid at its cost and, NMSCDCL shall not be held responsible for any cost incurred by the bidder. Submission of a bid does not entitle the bidder to claim any cost and rights over NMSCDCL and NMSCDCL shall be at liberty to cancel any or all bids without giving any notice.
- II. All materials submitted by the bidder shall be the absolute property of NMSCDCL and no copyright /patent etc. shall be entertained by NMSCDCL.

3.9. Bidder Inquiries

Bidder shall send in their queries by email to pmc@nashiksmartcity.in. The response to the queries will be published https://mahatenders.gov.in. No telephonic queries will be entertained. This response of NMSCDCL shall become integral part of RFP document.

NMSCDCL shall endeavor to respond to the questions raised or clarifications sought by the Bidders. However, NMSCDCL reserves the right not to respond to any question or provide any clarification, in its sole discretion and is not under any obligation to entertain/ respond to suggestions made or to incorporate modifications sought for.

The response of NMSCDCL shall become integral part of RFP document.

3.10. Amendment of RFP Document

- I. All the amendments made in the document would be published at https://mahatenders.gov.in website and shall be integral part of RFP and the bidding document.
- II. The bidders are advised to visit the aforementioned website on regular basis for checking latest updates of this RFP document. The NMSCDCL also reserves the rights to amend the dates mentioned in this RFP for successful bid process.

3.11. Supplemental Information to the RFP

If NMSCDCL deems it appropriate to revise any part of this RFP or to issue additional data to clarify an interpretation of provisions of this RFP, it may issue supplements to this RFP. Any such corrigendum or Addendum issued shall be deemed to be incorporated by this reference into this RFP.

3.12. NMSCDCL's right to terminate the process

NMSCDCL may terminate the RFP process at any time and without assigning any reason. NMSCDCL reserves the right to amend/edit/add delete any clause of this Bid Document. However, any such amendment/editing/addition/deletion of any para/clause would be published at https://mahatenders/gov.in

3.13. Earnest Money Deposit (EMD)

The bidders are requested to deposit the EMD through using available net banking option/credit card/debit card on e-procurement portal of Govt. of Maharashtra i.e. https://mahatender.gov.inThe Bidders are advised to ensure that the payment of the EMD is made at-least three working days prior to Bid Due Date to avoid any banking transfer delays and the receipt of the same shall be uploaded during the online submission of Bid document.

- The EMD shall be denominated in Indian Rupees only. No interest will be payable to the Bidder on the amount of the EMD.
- II. Bids submitted without adequate EMD will be rejected.
- III. Unsuccessful bidder's EMD shall be returned within 60 days from the date of opening of the financial bid.
- IV. EMD of Successful bidder will be returned after the award of contract and submission of the performance Security within specified time and in accordance with the format given in the RFP.
- V. EMD shall be non-transferable.
- VI. The EMD may be forfeited:
 - a) If a Bidder withdraws its bid or revises/ increases its quoted prices during the period of bid validity or its extended period, if any.
 - b) If Successful Bidder fails to sign the Contract or to furnish Performance Security within specified time in accordance with the format given in the RFP.
 - c) If during the bid process, a bidder indulges in deliberate act that would jeopardise or unnecessarily delay the process of bid evaluation and finalisation. The decision of the NMSCDCL regarding forfeiture of the Bid Security shall be final and binding upon bidders.

3.14. Language of Bids

This Bid should be submitted in English language only. If any supporting documents submitted are in any language other than English/Hindi/Marathi, translation of the same in English language is to be duly attested by the bidder and summitted in the Bid, and English translation shall be validated at NMSCDCL's discretion.

3.15. Patent Claim

In the event of any claim asserted by a third party for infringement of copyright, patent, trademark or industrial design rights arising from the use of the goods or any part thereof, the successful bidder shall expeditiously extinguish such claim. If the bidder fails to comply and NMSCDCL is required to pay compensation to a third party resulting from such infringement, the Bidder shall be responsible for such compensation, including all expenses, court costs and lawyer fees. NMSCDCL shall give notice to the successful bidder of any such claim and recover it from the bidder.

3.16. Number of Bids

The Bidder is eligible to submit only one Bid for the Project. In case of multiple Bids by a Bidder either as sole Bidder or as a member of Consortium all such Bids shall be rejected and EMD shall stand forfeited.

3.17. Site visit and the verification of information

The Bidders are encouraged to submit their respective Bids after visiting the site, and ascertaining for themselves the Site conditions, the quality and quantity of light (lux level) requirement, site surroundings for compliance of environment protection, availability of power, and other utilities for construction, availability and access to site, handling and storage of materials, seismic data, soil testing, applicable laws and regulations, labor laws, local bye-laws and any other matter considered relevant by them which will affect the outcome of the Project.

It shall be deemed that by submitting the Bid, the Bidder has:

- a. made a complete and careful examination of the Bidding Document;
- b. received all relevant information requested from the NMSCDCL;
- c. acknowledged and accepted the risk of inadequacy, error or mistake in the information provided in the RFP or furnished by or on behalf of the NMSCDCL relating to any of the matters referred above; and
- d. Agreed to be bound by the undertakings provided by it under and in terms hereof.

The NMSCDCL shall not be liable for any omission, mistake or error on the part of the Bidder in respect of any of the above or on account of any matter or thing

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arising out of or concerning or relating to the Bidding Document or the Bidding Process, including any error or mistake therein or in any information or data given by the NMSCDCL. It is the sole responsibility of the Bidder to ascertain the accuracy of the data provided by NMSCDCL.

3.18. Bid Submission Format

The Bids shall be submitted strictly as per the format specified in this Request for Proposal. The Bids in deviation from the prescribed format are liable for rejection.

3.19. Submission of Bids

The Bids submitted by the Bidder shall comprise of the following 3(three) envelopes. A 3(Three) envelope/ cover system shall be followed for the bid –

- a) Tender Fee, EMD and Pre-qualification criteria
- b) Technical bid and Demonstration
- c) Financial bid

The Bid shall include the following documents: -

#	Documents Type	Document Format
	Tender Fee, EMD Deta	il & Pre-Qualification- Envelope –A
1.	Tender Fee	Scanned copy of Tender Fee payment receipt
2.	EMD	Scanned copy of EMD payment receipt
3.	Pre-qualification	As per the format mentioned against the respective eligibility criteria clause.
1	Technical Qualification Docu	ıments and Demonstration- Envelope –B
4.	Technical Bid and Demonstration	As per the format mentioned against the respective eligibility criteria clause
	Financi	al Bid – Envelope –C
5.	Financial Bid	As per the format mentioned

The bidder should ensure that all the required documents, as mentioned in this RFP/ bidding document, are submitted along with the bid and in the prescribed format only. Non- submission of the required documents or submission of the documents in a different format/ contents may lead to the rejection of the bid proposal submitted by the bidder.

The Bids shall be submitted in three Envelope.

Envelope -A: Tender Fee, EMD Detail and Pre-qualification criteria

The Envelope A shall be submitted in physical form in original in one copy and the scanned copy of the original in pdf format shall be uploaded on www.mahatenders.gov.in duly digitally signed. *The bids not received online will be rejected.* If there are any discrepancies, online bid will prevail. The physical signed Envelope A shall be marked as "ORIGINAL".

Envelope A will contain:

- a. Copy of EMD payment.
- b. Copy of Tender Fee receipt
- c. Signed copy of this RFP.
- d. The Bid will have to be signed and submitted by the proper authorized person as appointed by the Bidder.
- e. Bid in the prescribed format (Annexure-I) along with Annexes and supporting documents;
- f. Power of Attorney for signing the Bid as per the format at Form-3A;
- g. If applicable, the Power of Attorney for Lead Member of Consortium as per the format at Form-3B;
- h. Copy of the Jt. Bidding Agreement, in case of a Consortium, substantially in the format at Form 10;
- i. Copies of Bidder's duly audited balance sheet and profit and loss account for the preceding 3 (three) years.
- j. Duly certified CA Certificates for Average Annual Net worth and Net Cash Accrual for the last 3(three) Financial Years as per the format at Form 9.
- k. Declaration duly signed by signatory of the Bidder in the official letterhead stating that Bidder has understood the scope of work and site conditions and carried out necessary site visits and completely comprehended the geographical aspects, works, land use as pacts and all normal and specific quality, safety, health and environment requirement and have sufficient resources such as qualified and experienced man power, material land equipment's/instruments to carry out the scope of work.

Envelope –B: Technical Bid and Demonstration shall be superscripted as: Technical Bids for Design, Build, Finance, Operate, Maintain & Transfer the Project of Implementation of high impact street light by installing Energy Efficient Dimmable LED Street lights for NMSCDCL. The Technical Bid shall be submitted in physical form in original in one copy and the scanned copy of the original in pdf format shall be uploaded on www.mahatenders.gov.in duly digitally signed. The bids not received online will be

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rejected. If there are any discrepancies, online bid will prevail. The physical signed Technical Bid shall be marked as "ORIGINAL". Technical bid shall contain following documents:

- 1. Guaranteed technical particulars of LED street lights and accessories as per Section V of this document.
- 2. The Bidder shall submit the following documents/ technical details for our technical evaluation:
 - a. Technical Catalogue of Product.
 - b. LM79 Measurement Report for the luminaries tested in NABL & BIS certified laboratory for testing of Luminaries.
 - c. LM80 Report for the LEDs used (supplied by LED manufacturer).
- 3. Compliance Forms as per the format in Annexure II.

Note: Demonstration will be part of the technical evaluation. However, no documents need to be submitted in this envelope for the demonstration purpose. The evaluation sheet will be shared with the bidder during the testing time.

Envelope -C: FINANCIAL BID

The financial bid shall be superscripted as: Financial Bid for Design, Build, Finance, Operate, Maintain & Transfer the Project of Implementation of high impact street light by installing Energy Efficient Dimmable LED Street lights along with CCMS (Software) system for NMSCDCL.

The Financial Bid shall be submitted online only and shall be signed digitally.

- This envelope should be sealed and stamped. Financial bid shall contain only the duly filled in final financial bid format as in Annexure III duly signed and stamped by authorized signatory and covering letter duly signed by the authorized signatory and stamped on the letter head of the Bidder and it should be uploaded online only.
- 2. The Bidder has to quote the percentage share of saving in the energy bill to the NMSCDCL. The price shall be quoted in figure as well as in words.

The offer should be considering all taxes and duties till the completion of the Project.

a. The Bidder shall acquaint itself with the work and working conditions at site and locality. No claim shall be entertained on this issue after the offer has been submitted.

- b. The cost of preparing the Bid including a visit to the site or office etc. will not be reimbursed as a direct cost of the assignment and NMSCDCL is not bound to accept any of the Bids submitted.
- c. Any accessories/items which may not have been mentioned in the specification but are required for satisfactory commissioning of the work shall be deemed to be included in the Contract and shall be provided by the Bidder without extra charges later on.
- d. The Bidders may visit the target street light segment to estimate the work before submitting their bids at their own cost.
- e. NMSCDCL reserves the right to order the final quantity.

The pages of documents, technical specifications, bids, supporting documents etc. shall be duly signed by the authorized signatory and company seal should be affixed or each page. All pages should be properly numbered and tagged or bound to avoid loss of information during processing of documents. Any part of which is not specifically signed by the authorized signatory and not affixed with company seal shall not be considered for the purpose of evaluation.

3.20. Disqualification

The Proposal is liable to be disqualified in the following cases or in case the Bidder fails to meet the bidding requirements as indicated in this RFP:

- i. Proposal not submitted in accordance with the procedure and formats prescribed in this document or treated as non-conforming Proposal.
- ii. During validity of the Proposal, or its extended period, if any, the Bidder increases his quoted prices.
- iii. The Bidder qualifies the Proposal with his own conditions.
- iv. Proposal is received incomplete.
- v. Proposal is received after due date and time.
- vi. Proposal is not accompanied by the EMD.
- vii. If the Bidder provides quotation only for a part of the Project.
- viii. Information submitted in Technical Proposal 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)
- ix. Financial Proposal is enclosed with the Technical Proposal.
- x. Bidder tries to influence the Proposal evaluation process by unlawful/corrupt/fraudulent means at any point of time during the Bid process.
- xi. In case any one Bidder submits multiple Proposals or if common interests are found in two or more Bidders, the Bidders are likely to be disqualified, unless additional Proposals/Bidders are withdrawn upon notice immediately.
- xii. Bidder fails to deposit the Performance Bank Guarantee (PBG) or fails to enter into a Contract within 15 Days of the date of issue of Letter of Intent or within such extended period, as may be specified by the NMSCDCL.
- xiii. The validity of the bids submitted before deadline shall be till 120 days from the date of opening of the Bids.
- xiv. While evaluating the Proposals, if it comes to the NMSCDCL's knowledge expressly or implied, that some Bidders may have colluded in any manner whatsoever or otherwise joined to form an alliance resulting in delaying the processing of Proposal then the Bidders so involved are liable to be disqualified for this Contract as well as for a further period of three years from participation in any of the RFPs floated by the NMSCDCL.
- xv. If the Bid Security Pre-Qualification Proposal, Technical Proposal contain any information on price, pricing policy, pricing mechanism or any information indicative of the Financial aspects of the Bid
- xvi. Bidder doesn't agree to the Terms and Conditions

In case of any of the above conditions, NMSCDCL reserves the right to negotiate with L2 bidder after informing the disqualification to L1 bidder appropriately

3.21. **Bid Opening**

- I. Envelope A containing EMD, Tender Fee and Pre-Qualification shall be opened initially in the presence of bidders.
- Envelope B containing the Technical Proposal shall be opened of only II. those bidders who qualify in the Envelope A.
- III. Envelope C containing the Financial Proposal will remain unopened until the time of opening of the Financial Proposals.
- IV. At the end of the evaluation of the Pre-qualification and Technical Proposals, NMSCDCL shall invite bidders who have qualified for the opening of the Financial Proposals. The date, time, and location of the opening of Financial Proposals will be informed by NMSCDCL separately and individually to qualified bidders.

3.22. **Evaluation Process**

Bid Evaluation Committee 3.22.1.

- The Bid Evaluation Committee constituted by the NMSCDCL shall evaluate the bids.
- II. The Bid Evaluation Committee shall evaluate the EMD & Tender Fee (Envelope A), Pre-qualification and Technical bid (Envelope B) and Financial bids (Envelope C) and submit its recommendation to Competent Authority whose decision shall be final and binding upon the bidders.

3.22.2. **Pre-Qualification Criteria**

Incorporation:

- i. This Bid is open to manufacturers/ authorized dealers of Street light fixtures which are operating in the market in India since last 5 (Five) years. Bidder may be a natural person, private entity, government-owned entity or any combination of them with a formal intent to enter into an agreement or under an existing agreement to form a Consortium
- The Bidder or the Consortium Members, as the case may be, must be a ii. corporate entity incorporated under Companies Act, 1956 or Companies Act, 2013, as the case may be or the relevant and equitable laws in the respective foreign country of their incorporation.
- iii. Certificate of incorporation or registration of the organization to be provided.

Consortium:

The Bidder may be a single entity or a group of maximum 3 (three) entities (the Consortium), coming together to implement the Project.

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- However, no bidder applying individually or as a member of a Consortium, as the case may be, can be member of another Bid. The term Bidder used herein would apply to both a single entity and a Consortium.
- v. The Bidder should submit a Power of Attorney as per the format at Form-3A, authorizing the signatory of the Bid to commit the Bidder. In the case of a Consortium, the Members should submit a Power of Attorney in favor of the Lead Member as per format at Form 3B of Section VIII of Annexure I.

Technical Capacity:

The Bidder shall demonstrate in past 5 financial years as on Bid Due Date the following of technical capacity:

- vi. Minimum experience of two consecutive years in operating and maintaining a street light network system in an urban area with a minimum street lights fixtures of 900 having software based control.

 AND
- vii. Successfully commissioned at least one software based street light project on public private partnership or engineering procurement & construction basis, having total project cost above Rs 2 Crore (Rupees two crores only)

In case of a Consortium of a maximum 3 (three) partners, at least one of them should meet the technical capacity

Copies of work orders or completion certificate received from the client(s) to be provided.

Financial Capacity:

viii. The Bidder shall have a minimum average net worth (the Financial Capacity) of Rs. 1.5 Crore (Rupees One Crore Fifty Lakhs) from the last 3(three) FY 2016-17, 2015-16 and 2014-15.

The net worth will be calculated as:

Net Worth = (Paid up & Subscribed Equity Capital + Reserves) LESS (Revaluation reserves + miscellaneous expenditure not written off + reserves not available for the distribution to the equity shareholders + accumulated losses) and;

ix. The Bidder shall have a minimum average Net Cash Accruals (the Financial Capacity) of Rs. 70 Lakh (Rupees Seventy Lakhs) from the last 3(three) FY 20116-17, 2015-16 and 2014-15.

The Net Cash Accruals will be calculated as:

Net Cash Accrual = Profit after tax + Depreciation + Amortization
In case of a Consortium of a maximum 3 (three) partners, at least one of them should meet financial capacity.

- Audited annual balance sheet for the last 3 (three) financial years, FY 2016-17, 2015-16 and 2014-15 to be submitted by the Bidder and CA certified certificates for Average net worth and net cash accrual to be provided.
- x. The Bidder or any member of consortium must have a valid electrical license issued by the Electrical Licensing Board, Maharashtra in the Bidder's name or in the name of the person hired by the Bidder.
- xi. The Bidder or all members of consortium should not have been debarred from any of the Central/State Government Department/Board/Corporation/ PSUs/Municipal Corporations.

Demonstration and Technical Bid:

- xii. The Bidder has to demonstrate successful operation of the offered LED street light product as indicated below, failing which the Bidder shall be rejected. (Conditions to be defined for rejection like Lux levels, watt loss or non—operation of lights within one week, or dimming criteria not working)
- xiii. The Bidders are required to demonstrate their products for site testing and verification by a committee of NMSCDCL to demonstrate physically that the offered product meets the technical specification.
- xiv. 5(Five) consecutive existing street light poles of the street light segment at locations as directed by the NMSCDCL Committee shall be replaced with the Dimmable LED Street light fixtures proposed to be on the basis of the demonstration, Lux Level measurements and watt loss of the installed fixtures will be checked and verified which will be documented by NMSCDCL Committee. No repeat observations /demos will be required to be done after the joint demonstration (with Bidder, NMSCDCL and NMC). The Lux Level measurements will be done as per the standards.
- xv. The venue and time of testing shall be communicated after opening of Technical Bid.
- xvi. The Bidder has to report to the Engineer-in-Charge for testing along with the required products and instruments at least one 1 (day) before the commencement of the testing so that necessary arrangements for replacement of existing fixtures and installations for the testing and demonstration can be taken up.
- xvii. NMSCDCL or third party (appointed by NMSCDCL) will provide required measurement devices for the measurement of different parameters like total consumption including watt loss and Lux Levels.
- xviii. The Bidders who fail to report for the testing with their products and instruments as specified shall be rejected.

- xix. The offers of the Bidder whose product fail to work satisfactorily during the testing shall also be rejected.
- xx. The offers of Bidders whose products do not conform to the specifications during the onsite testing shall be out rightly rejected.
- xxi. No cost for the demonstration shall be borne by NMSCDCL or NMC. NMSCDCL shall also not be held responsible for accident or for any damage or failure of the products or instruments during the demonstration. Adequate safety arrangements need to be made by the Bidder for safety of human being and equipments.

3.22.3. Process of Evaluation

- I. Bidders who qualify in Envelope 'A' shall be considered for further Technical evaluation and demonstration.
- II. Bidder shall be evaluated for Envelope A as per EMD, Tender Fee and prequalification criteria mentioned above at 3.22.2. The bidders who fulfil all the prequalification criteria in Envelope A, would be evaluated as per Technical Bid scrutiny and demonstration as mentioned in Envelope B.
- III. Bidders who qualify in Envelope B will be eligible for opening of Envelope C. Amongst the bidders who are considered for financial evaluation, the bidder quoting the highest offer for revenue sharing as per the financial format in Annexure II with the NMC will preferably be awarded the work at the discretion of NMSCDCL.
- IV. The Competent Authority reserves the right to accept or reject any or all bids without giving any reasons thereof.

3.22.4. Envelope A: Criteria For Evaluation

- a. The Bidder must provide the necessary information relating to Pre-Qualification as per formats Form 1-10 of Annexure I.
- b. The Bid must be accompanied by the audited annual reports of the Bidder (Audited Annual Reports) (of each Member in case of a Consortium) for the last 3 (three) financial years, preceding the year in which the Bid is made.
- c. In case the annual accounts for the latest financial year are not audited and therefore the Bidder cannot make it available, the Bidder shall give an

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undertaking to this effect and the statutory auditor shall certify the same. In such a case, the Bidder shall provide the Audited Annual Reports for 3 (three) years preceding the year for which the Audited Annual Report is not being provided.

d. The Bidder must establish the minimum net worth and minimum Net Cash Accruals specified in above, and provide details as per format at Form 9 of Annexure-I

3.22.5. Evaluation B:Technical Evaluation and Demonstration

Each Proposal which qualifies in Envelope A shall be scrutinized further technically for checking whether the offered Hardware meets the RFP requirements along with technical specification of the product. In case, the bid is found technically responsive then the bidder, will be called for demonstration and the bidders successful in the demonstration will qualify for further evaluation of Envelope C (Financial Bid). In case in NMSCDCL's opinion if there is a material deviation from the RFP requirement, it will treat the bid as non-responsive and may disqualify the bidder. The Envelope C of such disqualified bidder shall not be opened. NMSCDCL reserves the right to decide whether the deviation is material or not.

3.22.6. Envelope C: Financial Bid Evaluation

NMSCDCL will evaluate Financial Proposals of all the qualified bidders of Envelope B. If there is a discrepancy between words and figures, the amount in words shall prevail. For any other calculation/ summation error etc. the bid may be rejected.

3.22.7. Signing of Contract

The successful bidder shall enter into Concession agreement with NMSCDCL within the time frame mentioned in the LoA.

3.23. Fraud and Corrupt Practice

1 The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bidding Process. Notwithstanding anything to the contrary contained herein, the NMSCDCL 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 in the Bidding Process.

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- Without prejudice to the rights of the NMSCDCL, if an Bidder is found by the NMSCDCL 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 Bidding Process, such Bidder shall not be eligible to participate in any tender or RFP issued by the NMSCDCL during a period of 2 (two) years from the date such Bidder is found by the NMSCDCL 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, as the case may be.
- 3 For the purposes, the following terms shall have the meaning hereinafter respectively assigned to them:

a) corrupt practice means

- the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the Bidding Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the NMSCDCL who is or has been associated in any manner, directly or indirectly with the Bidding Process or the LOA or has dealt with matters concerning the Concession 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 the NMSCDCL, shall be deemed to constitute influencing the actions of a person connected with the Bidding Process); or
- ii. engaging in any manner whatsoever, whether during the Bidding Process or after the issue of the LOA or after the execution of the Concession Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Concession Agreement, who at any time has been or is a legal, financial or technical adviser of the NMSCDCL in relation to any matter concerning the Project;
- b) fraudulent practice means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Bidding Process;
- c) coercive practice means impairing or harming or threatening to impair or harm, directly or indirectly, any person or property to influence any person's participation or action in the Bidding Process;

d) undesirable practice means

 establishing contact with any person connected with or employed or engaged by the NMSCDCL with the objective of canvassing, lobbying

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- or in any manner influencing or attempting to influence the Bidding Process; or
- ii. having a Conflict of Interest;
- e) **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 Bidding Process.

3.24. Miscellaneous

- 1 The Bidding Process shall be governed by, and construed in accordance with, the laws of India and the Courts at Nashik, India shall have exclusive jurisdiction over all disputes arising under, pursuant to and/ or in connection with the Bidding Process.
- 2 The NMSCDCL, 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) Qualify or disqualify any Bidder and/ or to consult with any Bidder in order to receive clarification or further information;
 - d) retain any information and/ or evidence submitted to the NMSCDCL by, on behalf of, and/ or in relation to any Bidder; and/ or
 - e) 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.
- 3 It shall be deemed that by submitting the Bid, the Bidder agrees and releases the NMSCDCL, their 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 herewith and waives any and all rights and/ or claims it may have in this respect, whether actual or contingent, whether present or future.

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Section: IV – Scope of Work

4. Scope of Work

Background

Electric streetlights are essential elements of a Smart city environment and services. They affect residents' sense of safety while influencing a city's ability to create an inviting environment for business and tourism. Unfortunately, these existing outdoor lights consume good amount of energy. Therefore, following are desired in designing and implementation of street lightings:

- Reduce energy consumption, cost, and its maintenance;
- Enhance situational awareness, real-time collaboration, and decision making across city;
- ➤ Add intelligent IT innovations to transportation, civic utilities, public safety without adding significantly more physical infrastructure;
- > Real-time data communications with low latency to improve safety and security.

4.1. Scope of work

Design, Finance, Supply, Installation, Testing, Commissioning, Maintenance of below systems and services for 7.5 Years with minimum guarantee energy savings of 45%.

The Area Based Development (ABD) of approx. 600 acres of area under Smart City Plan of Nashik, has approximately 2580 street light poles and about 3500 fixtures on these existing street light poles. The bidder is required to dismantle the light fixtures, handover to Electrical Department, Nashik Municipal Corporation & replace with automatic dimmable and on-off features LED lights. The Led lighting replacement shall be Controlled and Managed LED Lights for selected Areas.

Survey:

- 1 The bidder to carry out survey of all the roads in ABD area where the Dimmable LED Light Fixtures are to be installed.
- 2 Based on IRC standards for road classification bidder has to undertake survey and define the Power requirement for replacement.

#	Group	Description
1	A1	For very important routes with rapid and dense traffic where the only considerations are the safety and speed of the traffic and the comfort of drivers
2	A2	For main roads with considerable mixed traffic like main city streets, arterial roads, and thorough fares
3	B1	For secondary roads with considerable traffic such as local traffic routes, and shopping streets
4	B2	For secondary roads with light traffic
5	С	For residential and unclassified roads not included in the previous groups
6	D	For bridges and flyovers
7	Е	For towns and city centers
8	F	For roads with special requirements such as roads near airports, and railways

Replacement:

- 3 The Bidder has to replace the all the existing conventional and nonconventional light fittings with the below mentioned type of LED luminaries.
- 4 Bidder needs to submit a detailed report of survey to NMSCDCL. The replacement policy is as follows:
 - For 6m and 9m road bidder should provide 25 Lux level
 - For 12m and above road 30 lux level should be provided by bidder

#	Existing high power vapor based fittings with bulb	To be converted into LED luminaries	Places/ road classifications
1	400W	210W +_5%	Category A1
2	250W	110W +_5%	Category A2
3	150W	90W +_5%	Category A3 and service roads and slip roads.
4	70W or lower	45W +_5%	Colonies & Parks

- 5 The LED luminaries shall have the maximum coverage area on ground. The Bidder shall get approved the sample of the LED luminaries from NMSCDCL before procurement/ implementation of the project work in this regard. Implementation:
- 6 The total comprehensive warranty for replacement of these new LED luminaries is for throughout the Project duration of 7.5 years from the date of GO-Live. During this period, the Bidder has to provide the replacement of all defective LED luminaries and other equipment's related to LED fittings of all types installed.
- 7 The NMSCDCL will inform the bidder to replace the defective LED luminaries throughout the project duration.

- 8 For maintenance of the LED nodes, the Bidder will depute his technical staff /engineers their will not be any dispute or mishandling of any item by NMSCDCL staff. The complete responsibility of making it operational will be of the Bidder.
- 9 The communication connectivity (GPRS/RFID/Wi-Fi/wired) of all LED lights for managing and monitoring shall be borne and maintained by the Bidder throughout the Project duration.
- 10 Bidder will have to install following minimum wattages of LED luminaires after replacement of existing luminaires:

#	Wattage	Count
1	Sodium Vapor 70 W	1129
2	Sodium Vapor 150 W	1156
3	Sodium Vapor 250 W	356
4	Sodium Vapor 400 W	73
5	T5 96W	322
	Total	3036

#	LED Fixtures(Wattage)	Count
1	45 W	45
2	60 W	340
3	90 W	25
4	120 W	39
	Total	449

- 11 The total number of luminaires to be replaced under the project may vary by ±15% before the completion of implementation.
- 12 The bidder shall also operate and maintain all Switch points/ feeder panels.

Procure, supply Install, commission, integrate and maintain CCMS solution for 7.5 years:

- 13 The Bidder has to supply CCMS and Integrate CCMS with Nashik Smart City Operation Centre.
- 14 The bidder shall host the CCMS software on cloud environment. NMSCDCL is floating a RFP for setting up of Smart City Operation Centre (SCOC) along with Data Centre. In future, the bidder shall be responsible to migrate, integrate the CCMS software to the Smart City Operations Centre (SCOC).

4.2. Guaranteed savings:

The minimum guaranteed energy savings, with the installation of LED street lights, should be 45% of monthly baseline energy consumption under concessionaire for the next 7.5 years.

4.3. **CONCESSIONAIRE** Project Structure

Particular	Structure for CONCESSIONAIRE Project
Model	ESCO – Design, Build, Finance, Operate & Transfer (DBFOT) Model
Parameters for Evaluation of Financial bids	Overall Quoted Guaranteed Energy Savings (%) from retrofitting of street light fixtures on each feeder panel selected under CONCESSIONAIRE project Percentage share of overall savings offered to NMSCDCL from the guaranteed savings proposed by CONCESSIONAIRE;
Project Coverage	Retrofitting and O&M of identified switching points and respective street light fixtures that are installed on Street light Infrastructure provided by NMSCDCL. Successful bidder will deploy LED streetlight smart networking solution consisting of (i) Group Controller based LED streetlight (ii) A sub-Ghz (free band 865Mhz - 867Mhz) (rf mesh network solution) and (iii) a multi-application Control and Monitoring System. Feeder controllers will be connected to the rf mesh network Successful bidder will replace existing brackets along with energy efficient street lights(to improve the lighting levels) as per the new specifications and designs, They will also replace all the terminal box, junction box, flexible wires from Fixture to terminal box/Junction box

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Particular	Structure for CONCESSIONAIRE Project
	wherever required; O&M of street light conductors and underground cables will be in the scope of CONCESSIONAIRE.
Energy Conservation Measures (ECMs)	Technical Specifications for LED street lights and LED streetlight smart networking solution is a part of Tender document;
Project Duration	7.5 Years
Savings	Minimum/ Reserve value of Guaranteed monthly Energy Savings at 45% of monthly baseline energy consumption at each switching point covered under CONCESSIONAIRE project for next 7.5 years;
Monitoring of energy savings post implementation; whether an independent agency / engineer is contemplated	Yes. An independent agency will be appointed by NMSCDCL for implementation monitoring and subsequent O&M monitoring, supervision for energy saving achieved and inspection of optimized use of the Smart City Platform. The monitoring and verification process is detailed out in Energy Performance Contract
Minimum standards of Operation and Maintenance	The minimum standards for maintenance of the lux level on roads and operation and maintenance of street light system should be adhered as per the conditions in this RFP and National Lighting codes
Penalties & Liabilities	Penalties levied for non-achievement of savings shall be equivalent to at least the difference between actual and quoted guaranteed savings; Penalties levied for non-compliance of lux level standard Penalty for Non-Compliance to Minimum Up-Time Penalty for non-compliance with electrical safety related matters Penalties levied for non-implementation or non-operation of the streetlight networking solution
Payment security	Trust and Retention Account (TRA) or ESCROW Mechanism to enhance bankability of the project;
Provisions relating to escrow account, if any	Appointment Nashik Municipal Corporation(NMC) and the Contractor/CONCESSIONAIRE shall appoint the a reputable Bank to serve as the escrow agent for the purposes of this Agreement and subject to the terms of this Agreement and the Escrow Agent hereby accepts this appointment. Escrow Account Within five (5) Business Days of the date hereof, Nashik Municipal Corporation (NMC) and the Escrow Agent shall establish an escrow bank account denominated in Indian Rupees for the benefit of the CONCESSIONAIRE (the CONCESSIONAIRE PROJECT ACCOUNT). Deposit and Replenishment Request Within fifteen (15) days of signing of this Agreement (CONCESSIONAIRE Project Account Agreement), NMC shall deposit an amount equal to One (1) months of energy

Particular	Structure for CONCESSIONAIRE Project
	bills. In the event that the amount in CONCESSIONAIRE Project Account falls below 30% of the previous deposited amount or on payment of monthly energy saving fee for subsequent two months, whichever is earlier, the Escrow Agent shall send a written request (Replenishment Request) to NMC to replenish the CONCESSIONAIRE Project Account and with a copy to the CONCESSIONAIRE for the same. Identification and Separation: The Escrow Agent shall clearly identify in its records the Escrow Account as an escrow account and shall keep the funds standing to the credit of the Escrow Account segregated from and not commingled with the Escrow Agent's own funds or the funds of any of its other customers or third parties. Fees Fees to be paid to the Escrow Agent for the establishment and management of the Escrow Account shall be borne equally by NMC and the CONCESSIONAIRE.

4.4. Proposed responsibility of CONCESSIONAIRE under the project

Area	Responsibility Assigned to CONCESSIONAIRE under this project
Meet Desired	 Design and Installation of smart streetlight network and platform based on individual streetlights and feeder panels control with Remote Measurement, monitoring& Switching Capability; Meeting timelines specified in contract for replacements/ repair of non-functional Street light fixtures and feeder panel;
Key responsibilities	 Capital investments required for retrofitting of street light fixtures in ABD Area; Design and Installation of Feeder Panels with Remote Measurement, monitoring & Switching Capability; O&M (only for Street light fixtures and smart streetlight control system (CMS, Network, Individual controller and feeder controller) which have been installed by the CONCESSIONAIRE) including replacement requirements during tenure of project;
Citizen Service	 Setting up of call center for citizens to record and address complaints in Nashik city;
Reporting/ Monitoring & verification (M&V)	 Remote metering and monitoring from centralized location; Measure of daily/billing period consumption; Setting up of call center for citizens to report complaints; Daily reporting of fused/ non-functional fittings/ fixtures etc. as well as citizen complaint resolution status;

4.5. Project Phase

The implementation timelines is given below:

#	Phases	Timelines
1	Date of Issuance of Work Order	To
2	Phase I: validation of status of street light systems, physical installations of Led street lights and light fixtures, existing street light cables or conductors, meters in street light infrastructure maintained by NMSCDCL, prepare the asset register (Numbering the poles and respective fixtures on poles) and liaison with respective government departments for necessary approvals related to implementation of the project. The technical specifications and quantities required is provided as part of this RFP.	T₀+15 days
3	Phase II: Design, procurement, installation, testing and Commissioning of smart city platform (CMS and networking solution) and LED streetlight as per the specifications provided in this RFP on priority basis on Smart Road (Ashok Stambh to Trimbak Naka) and then in remaining part of the ABD Area.	T ₁ = T ₀ +0.5 years
4	Phase III: Operation and maintenance of street light system and Smart City Platform from the date of issue of Commencement Certificate.	T ₁₊ 7 years
5	Total Concession Period	7.5 years

4.6. Lux Level Measurements

Upon commencement of Phase II, NMSCDCL shall conduct, with the assistance of the Independent Energy Auditor, lux level measurements on five per cent (5%) of the street lighting fixtures, randomly selected by NMSCDCL, on a rotational basis. Such lux level measurements will be carried out twice in a year. The CONCESSIONAIRE shall participate in the lux level measurements along with NMSCDCL and the Independent Energy Auditor. If the lux levels are found to be below the applicable standards specified in clause 4.1(3), the CONCESSIONAIRE shall make payments to NMC for the amounts as determined under service level agreement.

Such semi-annual measurements must be completed by 30th June and 31st December of each Financial Year for the Term of the Project.

4.7. Operating hours and dimming

The Successful Bidder has to maintain average operating hours per day for street lights after the completion of the project, across 7.5 years, equivalent to existing levels of 11 hours per day. If NMSCDCL wants to increase operating hours, for newly installed LED lights, then baseline will also be changed correspondingly to estimate energy savings. Although the bidder is required to provide dimming option in the new system (minimum up to 50%) but he will not be allowed to use it for additional energy saving, unless explicitly advised by NMSCDCL through written communication. Also the additional saving on account of dimming will not be shared with the bidder and all the energy saving benefit will remain with NMSCDCL.

4.8. Energy Baseline Determination

With immediate effect from the work order Date, the CONCESSIONAIRE shall undertake field surveys of the street lighting fixtures covered in the Project Area(ABD Area) to accomplish the following (together, the Energy Baseline):

4.8.1. Baseline Energy Consumption and Energy Savings for Nashik City

Following Section provide details for the Baseline Energy Consumption determination methodology, and Baseline Energy Consumption and likely Energy Savings for Nashik:

4.8.1.1. Baseline Energy Consumption

Baseline Energy Consumption is the deemed theoretical energy consumption of entire existing population street light fixtures installed in Nashik city are in working condition, taking into account losses in fixture control gear and cables/lines.

To arrive at baseline for the Annual Energy Consumption in the Nashik city following methodology has been adopted:

The rated wattage of each wattage type of street light fixture is multiplied by installed quantity of that type of fixture in the ABD area of Nashik smart city. This in turn multiplied by the theoretical losses in control gear and cables/overhead lines. This is further multiplied by the theoretical working hours of street lights in a year. The cumulative total of thus arrived energy consumption all type of street light fixtures will amount to the Baseline Energy Consumption of the Nashik city.

- 1. Cumulative wattage wt= 431572w
- 2. Assuming theoretical total watt losses in control gear of conventional street light fixtures and power lines is 15%. In case of existing LED type street light fixture losses these losses considered are 5%
 - a. Deemed Cumulative Power Wc1= 461773.3w (For conventional Fixtures.)
 - b. Deemed Cumulative Power Wc1= 31531.5w (For Non-conventional Fixtures.)
 - c. Total cumulative power consumption shall be Wc= 493304.8w
- 3. If total average uptime of lighting fixtures is 11 Hrs per day, total time annually, T= 11x365 hrs.=4015
- 4. Total baseline energy consumption in ABD area of Nashik City is

Eb= 1980619 Kwhrs

4.8.1.2. Energy Savings

The Energy Savings Amount in any year shall be arrived as follows:

After replacement of conventional street lighting with LED type lighting fixtures if actual cumulative street light energy consumption billed by Discom in a year in Nashik city is = Rs. 7219450

Unit cost as per Discom tariff in the year = Rs. 5.45

Baseline Energy Cost shall be = Rs. 13111696

Energy Savings Amount in the year shall be =Rs. 5892247

4.9. Operations of Bidder

- 1 The Successful Bidder has to ensure that all the available street lighting feeder panels (new) in the ABD area are connected to the Smart city Operation center (SCOC) system.
- 2 The Successful Bidder has to adhere to the technical specifications as specified in Technical Specifications section for different type of street lighting equipment.
- 3 The Successful Bidder has to arrange all the equipment, machineries and instruments required for the implementation of the project at its own expense.
- 4 Also the Successful Bidder shall procure at his sole expenses all permits and licenses and pay all charges and fees for lawful execution of the work.
- 5 Before starting the installations, it is the responsibility of the Successful Bidder to ensure that ONLY relevant poles or lamps are taken up for installations which are under ABD area of Nashik Smart City.
- 6 The CONCESSIONAIRE shall undertake marking of poles (pole numbering) for each LED luminaire installed in ABD area of NMSCDCL and switching point details. However, this should be done without damaging the infrastructure of NMC, NMSCDCL or any other parties.
- 7 The Concessionaire has to prepare switching point based inventory post replacement and the concessionaire shall conduct GIS/ GPS mapping of street lighting switching points/feeder panels and rationalize the coverage area under the switching points.
- 8 **Service Wire:** The CONCESSIONAIRE has to install cable/wires (each for phase and neutral) of required length for connection of luminaire to overhead conductor/ power supply cable. No extra charge will be payable to the concessionaire for this work. The Cables/ Wires should have following features
 - i. Diameter of 10 sqmm,
 - ii. PVC insulated
 - iii. 4-core Aluminum wire.
- 9 The ABD area comprises of poles that are under jurisdiction of NMC. There are a total of 3500 luminaires in place being operated by approximately 70 switching points/ feeder panels.

- 10 **Bracket/Arm/Clamps**: In case these items are not available at existing locations or existing Bracket/Arm/Clamps are defective, then the same are to be supplied and installed by the CONCESSIONAIRE and for this no extra charges will be payable.
- 11 The Successful Bidder must take adequate care, by using black cotton tape or better quality tape for connection of wires, to avoid short circuiting of connections especially during monsoon season between luminaire wires. No extra charge will be payable to the concessionaire for this work.
- 12 Surge protection: The CONCESSIONAIRE will provide surge protection arrangement to protect the luminaire from switching surges which are expected/prevalent in Street Light supply networks. No extra charge will be payable to the concessionaire for this work. No claim for failure of Luminaires, on account of voltage surges other than Lightning surges, will be considered.
- 13 In case of voltage surges due to lightning, it is expected that lights, in the affected circuit, will fail in a group and not in an isolated manner. Hence, any such failure of lights in a group on account of Lightning surges, may be reported to the NMC and NMSCDCL, along with circumstantial evidence preferably within 48 hours of such occurrence, for the purpose of damage claim. The responsibility for submission of supporting documentation rests with the successful Bidder.
- 14 Earthing: The provisions of IS-3043, may be referred to in general and the said IS Specifications in particular. Successful Bidder may carry out, at his own cost, earth resistance measurement of neutral conductor of supply network during the initial commissioning phase and subsequently on yearly basis or as may be felt necessary for reliable operation of the Light Luminaires. No claim for failure of Luminaires will be entertained on account of earthing issues.
- 15 The Concessionaire shall be responsible for identifying existing asset deficiency like power cables (overhead/ underground cables from feeder panels to various poles) for street lighting or conductors, required JBs/MCBs on poles and existing damaged poles in street light infrastructure maintained by NMSCDCL. In such instances, the Concessionaire will provide the asset deficiency report and related anticipated expenditure for replacement. The replacement of such infrastructure will be done by the successful bidder after getting approval of NMSCDCL. The Concessionaire will be paid, for this infrastructure improvement @ 15% discount, on approved Common Schedule of Rates (CSR) as approved by Government of Maharashtra for replacing/ installing the poles, power cables, JBs/MCBs on poles for street lighting.
- 16 The Concessionaire shall be responsible for identifying existing asset deficiency like power cables (overhead/ underground cables from feeder panels to various poles) for street lighting or conductors, required JBs/MCBs on poles and existing damaged poles in street light infrastructure maintained by NMSCDCL. In such instances, the Concessionaire will provide the asset deficiency report and related anticipated expenditure for replacement. The replacement of such infrastructure will be done by the successful bidder after getting approval of NMSCDCL. The Concessionaire will be paid, for this infrastructure improvement @ 15% discount, on approved Common Schedule of Rates (CSR) as approved by State of Maharashtra for replacing/ installing the poles, power cables, JBs/MCBs on poles for street lighting. In addition

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- to this, NMSCDCL may ask for painting of some poles across the city. After approval on the number of poles and locations for painting from NMSCDCL, the Concessionaire can start the painting work and payment will be made, considering 15% discount, on approved Common Schedule of Rates (CSR) as approved by State of Maharashtra. If rate is not available in CSR, then NMSCDCL will discover the market price through minimum three bids. In such situation the Concessionaire will be paid on discovered market price.
- 17 In view of the continuous development of the city expected during the contract tenure and after the commissioning date, NMSCDCL might need to install more street lights in the new or existing areas. In those cases, the CONCESSIONAIRE may be asked to install additional street lights and CCMS panels and connect the same to overall CCMS system. In case of such additions after commissioning of the project, NMSCDCL will reimburse the Concessionaire, the cost of the luminaire, at the fixed rate of INR 100/watt for each of the luminaire, throughout the concession period. No payment towards energy savings would be made by NMSCDCL to the Concessionaire for all such additional street lights but the CONCESSIOAIRE will be paid O&M for those Luminaires at the rate, which is being paid for other luminaires, till the contract end date.
- 18 Also, in such cases as defined in clause 17, the CONCESSIONAIRE has to carry out the O&M of these additional luminaires and CCMS panels. The CONCESSIONAIRE will be paid as per their quoted rates, of that respective year, in the price bid document of this tender. The Operation and Maintenance Fee associated with these addition/deletion will be done starting following month of addition/deletion.
- 19 The Successful Bidder might be required to:
 - I. Change existing CCMS panels to higher capacity in view of inclusion of additional street lights resulting in insufficient rating of CCMS panels at its own cost.
 - II. Shift the CCMS panels from one place to other place due to obstacle in traffic, line shifting or for the purpose of load distribution at its own cost.
- 20 The Successful Bidder has to intimate NMC and NMSCDCL about any cases of power theft or unauthorized connection of load during festivals from the street lighting network on priority basis. NMC and NMSCDCL will be responsible for taking all the corrective measures required and not penalize the Successful Bidder for such theft.
- 21 The Successful Bidder shall ensure proper recording of the dismantled conventional Luminaires and report that to NMSCDCL on weekly basis.
- 22 With regard to asset ownership, following need to be adhered to:
 - I. NMSCDCL and NMC shall at all times during the contract period remain the owner of the land and the existing lighting infrastructure under its jurisdiction.
 - II. The Successful Bidder will not be held liable for lighting infrastructure existing prior to the date of commissioning of LED luminaires and CCMS panels or arising from any event or circumstance that occurred prior to the date of commissioning.
- III. The Successful Bidder shall remain the owner of the LED luminaires and CCMS panels installed by it during the contract period. The Successful Bidder shall

- undertake all the procurement of equipment and services necessary for the Project. This LED luminaires and CCMS panels shall be free of any lien.
- IV. At the expiry of the contract period, all rights and titles to, and interests in, all improvements and equipment constructed or systems installed are vested in NMSCDCL and NMC, free and clear of all and any liens and encumbrances created or caused by the Successful Bidder. The Successful Bidder shall surrender possession of the LED luminaires and CCMS panels, along with CCMS bill of material, to NMSCDCL and NMC with 98% of them in working condition.
- 23 NMSCDCL will conduct monthly or annual reconciliation of readings provided by CCMS and MSEDCL energy meters. If deviation between CCMS energy meter readings and MSEDCL energy meter is more than 2%, then NMSCDCL or NMC or a third party appointed by NMSCDCL or NMC, will carry out on site measurement for verification. This deviation of 2% is allowed only if the overall committed energy savings for the system is achieved.

4.10. Special Conditions of Tender to undertake comprehensive operation and maintenance of street lighting network for ABD area.

During the contract period, following operation & maintenance activities will be required to be carried out by the Successful Bidder:

- 1. The Authority shall remain the principal employer of the municipal employees working for the street lighting department. Such employees may or may not, at the Successful Bidder's sole discretion, be seconded to the Successful Bidder for a specific duration and under terms and conditions to be agreed upon between the Parties. The Successful Bidder has no obligation to employ directly or indirectly any municipal employees.
- 2. The CONCESSIONAIRE will open an office in Nashik City with basic infrastructure where the CONCESSIONAIRE will make available a person with amenities like computer, printer, phone, complaint register, etc. during working shift timings. These complaint handling centers will be connected to NMSCDCL's SCOC and such centers should become fully operational within 30 days of allocation of such space by NMSCDCL.
- 3. The Successful Bidder has to store inventory (minimum 1% of total light points in the ABD area) of LED luminaires for maintenance requirements.
- 4. The CONCESSIONAIRE has to be proactive in monitoring street lighting system regularly and performing preventive maintenance and not relying solely on Complaint Management System.
- 5. In case of theft of the material or electricity, the CONCESSIONAIRE will inform the NMSCDCL and NMSCDCL will file the FIR. Further, after FIR, the Concessionaire will address the theft by replacement of material or removing illegal electricity connection as the case may be, in presence of NMSCDCL officials. The Concessionaire will have to bear the cost for the losses in material. In case of theft of electricity, the feeder panel specific consumption would be adjusted for the theft.

- 6. The Successful Bidder will manage the operation of all the control panels installed by him and also provide maintenance, web-based portal & communication services etc. of these control panels during the contract period.
- 7. All complaints lodged in the system have to be resolved within 48 hours of lodging of complaint. For example, if the complaint is lodged on 16th May at 10 PM then the complaint has to be resolved by 18th May 10 PM. In certain cases, CONCESSIONAIRE has to resolve the complaints immediately as per the instruction of EIC.
- 8. The Successful Bidder shall ensure the availability of sufficient ladder vehicle, Hydraulic Vehicle (suitable to reach up to 12m height) and other relevant vehicle & equipment for O&M. The vehicle used for O&M should have valid registration documents.
- The Successful Bidder to ensure that no work is held up due to non-availability of ladders, etc., otherwise the Successful Bidder will be held responsible for such delays
- 10. In case normal vehicle is unable to access the light point, the CONCESSIONAIRE will be required to make necessary arrangements for facilitating street lighting installation and maintenance at such locations.
- 11. The CONCESSIONAIRE has to ensure that drivers of ladder vehicles must possess valid driving license, vehicle registration documents, insurance, etc. at all times during the contract period.
- 12. The CONCESSIONAIRE has to carryout O&M of street lighting network including following specific conditions:

	following specific conditions.				
Sr. No.	Conditions	Responsibility of CONCESSIONAIRE			
1	Maintenance of central lighting	Apart from regular O&M activities; the CONCESSIONAIRE will be responsible for Maintenance/replacement of junction box, related switchgears and related connecting wires/ cables.			
2	Some poles, street light span or street light control may be shifted due to obstacle to traffic, line shifting or for the purpose of load distribution	In such a situation, the CONCESSIONAIRE has to bring in labor for dismantling Luminaire and again putting up Luminaire after shifting has been completed by NMSCDCL.			
3	Due to overhead mix network, snapping of conductors, phase-to-phase phenomenon is very frequent and leading to damages of street light luminary and its components	The CONCESSIONAIRE, under such a condition, will register a complaint with the MSEDCL and also undertake required O&M. The Authority will coordinate with MSEDCL, if required.			
4	All street lights are installed on bracket suitable to its entry diameter; however, it may be possible to change some of the	All the associated cost would be borne by the Concessionaire.			

brackets at site for LED	
installation	

- 13. The Successful Bidder will be penalized for non-achievement of following O&M performance parameters. (please refer SLA for more details)
- 14. The CONCESSIONAIRE will organize half-day training program at NMSCDCL office wherein the CONCESSIONAIRE will train the employees of NMSCDCL on any day within one month of the date of commissioning and on any day within last quarter of end of contract period on the operation, maintenance and repair of the equipment and systems installed by the CONCESSIONAIRE.
- 15. Successful Bidder should address the queries or issues raised by employees of NMSCDCL on O&M practices from time to time.
- 16. The Concessionaire shall assign an overall in charge for coordination and monitoring of day to day activities of entire city network. Additionally CONCESSIONAIRE should deploy the team as proposed, in their technical bid, from their organization who are regular employees and provide the contact details of the same, who shall be accountable for delivering on the said commitments during the Contract Period, coordinate for daily O&M exercise and update NMSCDCL as per agreed format. In case, the assigned personnel leaves the organization or is reassigned, the CONCESSIONAIRE has to intimate the same in writing to NMSCDCL and advice names of the new officers assigned for the role.
- 17. **Insurance**: The Goods supplied under the Contract shall be fully insured in Indian Rupees against loss or damage incidental to manufacture or acquisition, transportation, storage, delivery, completion of installation and commissioning as brought out at Clause Conditions of Tender. For delivery of goods at site, the insurance shall be obtained by the Successful Bidder, for an amount not less than the Price of the goods from warehouse to warehouse (final destinations) on All Risks basis including War risks and strikes.
- 18. The Concessionaire shall assign an overall in charge for coordination and monitoring of day to day activities of entire city network. Additionally CONCESSIONAIRE should deploy the team as proposed, in their technical bid, from their organization who are regular employees and provide the contact details of the same, who shall be accountable for delivering on the said commitments during the Contract Period, coordinate for daily O&M exercise and update NMSCDCL as per agreed format. In case, the assigned personnel leaves the organization or is reassigned, the CONCESSIONAIRE has to intimate the same in writing to NMSCDCL and advice names of the new officers assigned for the role.
- 19. Safety: During the period of installation and O&M, the Successful Bidder should ensure implementation of measures to ensure SAFETY of working personnel, as per all applicable laws in general and with special focus in the following.
 - a. Working at heights
 - b. Working on/in the vicinity of power supply lines.

Suitable work instructions/procedures shall be prepared for each type of work location (Height or type of pole / supply network configuration) and the working personnel shall be trained at regular intervals by a competent person possessing valid certificate w.r.t SAFETY issues.

All the working personnel shall be provided with appropriate Personnel Protection Equipment such as Safety harness for working at heights, safety helmets, Earthing rods, etc. The Successful Bidder shall arrange to carryout safety Audit at regular intervals by a competent person possessing valid certificate w.r.t SAFETY issues and suitable remedial measures shall be taken based on the findings/recommendation of the Safety Audit.

4.11. Assessment of lighting load

It is acknowledged that MSEDCL charges NMC for electricity consumption in street lighting based on the connected load with any feeder / energy meter. For every feeder/ energy meter, a separate bill is raised on monthly basis. Therefore, in order to realize the benefit of reduced energy consumption after the installation of LED lights, NMC will have to get reduce the sanctioned load of each of the street lighting feeder proportionately. NMSCDCL will take-up this with MSEDCL so that sanctioned load of each of the feeder is reduced based on the new load on the feeder after the installation of LED lights.

During implementation stage, the Concessionaire must first install control panels with each of the feeders/ switch points before the installation of LED lights so that these panel can measure the existing lighting load also on each of the energy meters for a specified period of time (1-2 days). After recording these measurements the Concessionaire will replace the old lights with LED lights and will again record the changed load. Other parameters such as no. of lights and their corresponding wattage shall also be recorded for any switching point before and after replacement with LED lights. NMSCDCL will also provide Concessionaire, the previous year bills for each switching point. At the end of every month, from the start of installation phase, the concessionaire shall for the completed switch points 3, must prepare and submit a consolidated report to NMSCDCL/NMC in the format as provided below:

Sr. No.	Division	Switch Point Description	Existing load as per utility bill (kW)	New load as per new meter installed in CCMS panel (kW)	New load after replacement of all lights connected to switching point (kW)
1					
2					
3					
4					
5					
6					

The Concessionaire shall also submit a consolidated report in the above format to NMSCDCL/NMC separately for each division, immediately after the work is completed for that division.

4.12. Assessment of energy savings through Measurement & Verification (M&V)

The energy savings by virtue of its nature is to be calculated through difference of baseline energy consumption and actual energy consumption. The replacement of existing street light with energy efficiency LED street light is expected to give minimum 45% of energy saving. So the successful bidder will have to ensure minimum energy saving of 45% from all the measures taken in this project.

The M&V of energy savings will be started after replacement work of smart road has been completed. The Concessionaire will be eligible to raise the reports for the energy savings realized after complete installation on the smart road.

The CONCESSIONAIRE will be required to submit, at start of every month, detailed CCMS report capturing energy consumption at each CCMS panel, hours of operation, details of events like phase failure, non-operational light points, etc. to NMSCDCL. NMSCDCL will direct the ESCROW bank to process the payment to concessionaire after adjusting for penalties, if any. NMSCDCL or the third party consultant hired by NMSCDCL will conduct reconciliation of CCMS report and MSEDCL bills semiannually and any discrepancies observed in the savings of CCMS report would be adjusted in the subsequent invoice of the Concessionaire.

4.13. System Documents, User Documents

The CONCESSIONARE 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:

- 1. Project Commencement Documentation: Project Plan in giving out micro level activities with milestones & deadlines.
- 2. Equipment Manuals: Original Manuals from OEMs.
- 3. Installation Manual: For all the application systems.
- 4. 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.
- 5. User Manuals: For all the application software modules, required for operationalization of the system.
- 6. System Manual: For all the application software modules, covering detail information required for its administration.
- 7. Standard Operational Procedure (SOP) Manual: The Bidder 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 NMSCDCL before completion of Final Acceptance Test. This SOP manual will be finalized by the

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Concessionaire within 2 months of operationalization, in consultation with the NMSCDCL and formally signed off by the NMSCDCL.

Note: The CONCESSIONAIRE will ensure upkeep & update all documentation and manuals during the concession period. The ownership of all documents, supplied by the Concessionaire, will be with NMSCDCL. Documents shall be submitted in two copies each in printed (duly hard bound) & in softcopy formats.

4.14. Helpdesk Setup

- 1. The CONCESSIONAIRE will set up a 24X7 centralized helpdesk for the project for entire concession period;
- 2. The help desk will handle user queries and issues relating to implemented solution
- 3. The helpdesk is required to ensure that users can log calls and complaints for any technical issues they face while accessing the system. The following is included in the scope of work of the Concessionaire:
 - The helpdesk to have Interactive Voice Response (IVR) system for first level of call segregation;
 - Accordingly Standard Operating Procedures (SOPs) shall be created by the Concessionaire;
 - c. In addition to the telephone call, the Concessionaire shall also provide other channels for call logging like email and web interface;
 - d. Following is also part of scope of work of Concessionaire:
 - i. Development of training material for NMSCDCL employees
 - ii. Training to be imparted to NMSCDCL
 - iii. provision of Call center application
 - iv. Development of standard operating procedures with call prioritization guidelines, problem security codes and escalation procedures etc. in consultation with NMSCDCL
 - v. Helpdesk related infrastructure;
 - e. Language Capabilities: Marathi, Hindi and English;
 - f. The service window for Help Desk is 365X24X7 (Monday to Sunday);
 - g. 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;
 - h. The Concessionaire shall deploy helpdesk application accessible to all users through the Smart City portal for logging issues; and The Concessionaire to provision for inbound calls.

4.15. Training

The Concessionaire need to provide training to NMSCDCL/NMC employees and other stakeholders as directed by NMSCDCL. The following is a broad level scope;

- 1. The Concessionaire will prepare all the requisite audio/visual training aids that are required for successful completion of the training for all stakeholders. These include the following for all the stakeholders:
 - a. Training manuals for NMSCDCL employees / stakeholder departments;
 - b. Computer based training modules;
 - c. Presentations;
 - d. User manuals;
 - e. Operational and maintenance manuals for Smart Components implemented;
 - f. Regular updates to the training aids prepared under this project.
- 2. The Concessionaire will maintain a copy of all the training material on the portal and access will be provided to relevant stakeholders depending on their need and role. The access to training on the portal would be finalized with NMSCDCL. Concessionaire has to ensure the following points:
 - a. For each training session, the Concessionaire has to provide the relevant training material copies to all the attendees.
 - b. The contents developed shall be the property of NMSCDCL with all rights.
- 3. The Concessionaire has to ensure that the training sessions held are effective and that the attendees would be able to carry on with their work efficiently. For this purpose, it is necessary that the effectiveness of training sessions is measured. The Concessionaire will prepare a comprehensive feedback form that will capture necessary parameters on measuring effectiveness of the training sessions. This form will be discussed and finalized with NMSCDCL.
- 4. After each training session, feedback will be sought from each of the attendees on either printed feedback forms or through a link available on the web portal. One member of the stakeholder group would be involved in the feedback process and he/she has to vet the feedback process. The feedback received would be reported to NMSCDCL for each training session.

4.16. Hand-over of the system at the end of contractual period The Concessionaire will supply to the NMSCDCL the following before the expiry of the contract:

- 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;
- 2. All other information (including but not limited to documents, records and agreements) relating to the products & services related to the project to enable NMSCDCL and its nominated agencies, or its replacing Concessionaire to carry out due diligence in order to transition the provision of the Project Services to NMSCDCL or its nominated agencies, or its replacing Concessionaire (as the case may be).

4.17. Independent Energy Auditor

NMSCDCL/NMC shall appoint an independent energy auditor (the Independent Energy Auditor) selected following a transparent and competitive tender procedure launched by NMSCDCL. All the Independent Energy Auditor's expenses shall be borne by the NMSCDCL

4.18. Reporting

During the Term, the CONCESSIONAIRE shall provide monthly reports to NMSCDCL about the following matters:

- 1. Update on the assets;
- 2. Operation and maintenance services;
- 3. Energy saving report;
- 4. Lamp failure report;
- 5. Panel Door Open Alert Report,
- 6. Monitoring and verification report.
- 7. The CONCESSIONAIRE shall also submit Annual Electrical Safety report

Paguage for Propogal for S	Calaction of Concass	ionaire for Implement	ing Smart I ED Stre	ant Liabte for ARD ar	as in Nachik City

Section: V – Technical Specification

5. Technical Specification

The scope includes design, development, manufacturing, testing and supply of energy efficient luminaire complete with all accessories, LED lamps with suitable current control driver circuit including mounting bracket for street light and High mast light. The luminaire shall be suitable for rugged service under the operational and environmental conditions encountered during service. The detailed technical specification for each component of the project i.e. LED Luminaire and CCMS is provided in subsequent section.

5.1. LED technical specification

Sr. No.	Typical specificati	Supporting document	
i.	High bright white luminaries and the	LED Technical Data sheet	
ii.	•	used in the Luminaire shall be more at 70% light output	LM-80/IS16105,L70 & TM 21 Test Report
iii.		dex (CRI) of the LEDs used in the data luminaire shall be greater than 75	test report including technical Data Sheet
iv.	LED chip make- Cl	REE/OSRAM/	of LED Chip
V.	LED chip efficacy s at Tj 25° C	shall be more than 135 Lumens/watt	LED Technical Data Sheet
vi.	Junction Tempera	ture (Tj) should be <105°C	Manufacturer self- certify
vii.	Photo Biological S 62471 and assess – Ed. 1.0	Photo Biological Safety Report	
viii.	Color temperature of nominal 3,000 k HPSV at main roa LED's (CCT as per	LM-79 report for both type of LED's to be submitted by the Bidder	
ix.	Power factor	> 0.95	LM-79 report
X.	System Efficacy (lumen/watt)	Shall be >100 lumen/watt	LM-79 report
xi.	CRI of Luminaries	LM-79 report	
xii.	Lumen depreciation	LM 80 Report to be submitted and Manufacturer has to self-certify	
xiii.	The luminaire light. The voltage variat voltage range sha produces. Maximuthe input operatin	LM-79 report	

Sr. No.	Typical specificati	Supporting document			
xiv.	Operating voltage driver with international (Applicability IS 19	NABL accredited lab report			
xv.	Overvoltage cutof	NABL accredited lab report			
xvi.	Total Harmonic Di IEC:610003-2	NABL accredited lab report			
xvii.	LED Drive current	>=350 mA<1200 mA	LM-79 report		
xviii.	LED driver efficiency	LM-79 report			
xix.	Heat dissipation / Well-designed the defined heat sink	heat sink: rmal management system with	NABL accredited lab report		
xx.	The luminaire hou free High Pressure Alu luminaire to minir as per IEC 60598/I Luminaire allowed	NABL accredited lab report			
xxi.	The luminaire shall be equipped with distortion free, clear, heat resistant, toughened, UV stabilized glass / Polycarbonate cover in the front fixed to the die cast Aluminum frame which shall be fixed to the housing by means of Corrosion resistant or Brass screws for areas not inside IP66 rated chamber. Zinc plated steel or equivalent screws can be applied inside sealed chambers.				
xxii.		ll be built in such a way that it can beed of 150 kmph. (Impact	NABL accredited lab report		
xxiii.	Frequency	50Hz +/- 3%			
xxiv.	Operating temperature	Range: -20C to +60C	NABL accredited lab report		
xxv.	Protections IP66 for all type of lamps to be installed Surge protection 4 kV, IEC61000-4-5		NABL accredited lab report		
xxvi.	Working humidity	10% to 90% RH			
xvii.	Conformation standards of luminaire (Test reports of luminaire)	From NABL Certified TPL Test report TEST REPORT as per IS:10322 part 5 Sec- 3 /IEC:60598-2-3			

Sr. No.	Typical specificati	Supporting document	
	Resistance Test, Endurance Test, Humidity Test , Photometry Test (LM79 report), Vibration Test		
xviii.	Finish	Aesthetically designed housing with corrosion resistant polyester powder coating	Self-Declaration
кхіх.	Luminaire configuration / technical requirement	Side entry type. Shall consist of separate optical and control gear compartments. It should be easy replaceable in the field condition.	Self-Declaration
XXX.	Compliance	RoHS/CE/ERTL/ERDI	Confirmation
хххі.	Surge Protection	External Surge protection of minimum 4 kV/ 10 kV to be separately installed with the each Luminaire, if required.	As per IEC 61000-4-5

NOTE:

- 1 All Tests have to be confirmed and appropriate TEST REPORT has to be submitted at the time of bid submission.
- 2 NMSCDCL is free to draw samples after start of supplies from the supplied quantity and subject the same to test in a NABL Accredited Lab. NMSCDCL will bear the cost of testing of such sample. The decision of NMSCDCL on the same shall be binding on the Concessionaire. Failure of the sample will invite strict penalty and disqualify the Bidder from future tenders also.

5.2. **CCMS**

CCMS having following features needs to be installed by the CONCESSIONAIRE.

#	Features	Description	
1	Operational Features	 The CCMS unit should be capable of switching Of and OFF the lights of a particular switching point and/or networked switching points from Central Control Station instantaneously or automatically throughout the year on basis of Sunrise and sunse time depending on the geographical location of the switching point. The CCMS unit should be a GPRS and/or GSM (with IMEI number) proven technology based remote streetlight monitoring system with capacity for self protection from short-circuit, over voltage and antitheft alert. The CCMS unit should have a battery backup of a least 12 hours. The CCMS shall have optically isolated communication port to fetch data (this is required for safe data transfer and to protect unauthorized access. The rating of the CCMS units should be at least twice that of the lighting load 	nt al y et e h e f- i- nt d or s)
2	Energy measurement and communication features	 The control panel at each of the switch point/ feeder should have a 3- phase energy meter. The detailed specifications of these meters are: ISI Marked, LT At 3-Phase, 4-Wire CT operated, Static, DLMS Compliant Energy Meters (Category-C1) of ratio 100/5A & 200/5/of Accuracy Class-0.5S (for both active and reactive energy) with 'Optical port' & 'RS- 232 port' along with Compatible Software, to be installed in CCMS panels. The control panel at each of switch point/feedershould have following but not limited to: MCB, Contactor, transformer, controller, relay etc. The CCMS unit Should be able to capture (record) and provide following parameters at variable time intervals (Individual switching point wise and/onetworked switching points): Voltages Current Power Factor Active Power (kW) Apparent Power (kVA) Metering kWh cumulative Metering kVAh cumulative Number of hours of a group of LED luminaire connected with each switch controller was glowing Number of hours the power supply was unavailable 	d C C t, Q e h S. er c s d e-or

#	Features	Description			
		 Special emergency on/off facility with wireless control. Benchmarking capacity so as to generate alert SMS 			
		for:			
		 Phase-wise currents on crossing threshold values* 			
		 Phase-wise voltages on crossing threshold values* MCB trips Theft alerts Group failure of lights No output supply Alert SMS shall be forwarded to Officials phone numbers. Class 1.0 accuracy Energy Meter with ISI marking/IS- 			
		13779 is to be used for power measurement. Type testing report from NABL Accredited Lab to be			
		provided. It is to be calibrated annually. Note: Please refer the technical specifications for designing the threshold values for voltage and current			
3	Web based Application (Central Control and Monitoring System functionalities)	 CCMS shall have a web-server to receive and record all data with time stamping from the streetlight controllers. It should be able to communicate with any individual switching points or collectively amongst networked switching points for control and monitoring. It should able to record LED luminaires glowing and non-glowing hours of a particular switching point. It should be able to display the power failure details of a particular switching point and the relevant luminaires. It should register all fault conditions like excess voltage/current drawn, no-power supply, etc. through the instantaneous alert messages sent by the CCMS unit. Reports such as energy saving report, lamp failure report, actual hours of operation, uptime (%), etc. should be generated on a daily basis from the data/readings received from the CCMS units. Different user authorization levels should be settable and the central server should be capable of handling heavy traffic, i.e. the number of LED street lights installed in wards under this program. GIS Mapping should be done covering all switching points and the details of each switch point shall be viewable in the web application software through a Google-map interface or web based digital map. All the CCMS units should be remotely configured from the Central Control Unit: 			

# Features	Description
	 Setting new ON/OFF timings
	 Setting the Response Time Count (RTC) time
	of Automation unit
	 Knowing the current status of any particular
	switching point.
	 Reset the unit.
	 The minimum interval for the update of data
	should be 15 minute but programmable up to
	1 minute.
	 Auto synchronization of controller with server
	timing to be further synchronized with
	standard GPS clock timing.
	The system monitors all the following from the CCMS
	unit
	 Voltages each phase
	 Current each phase
	 PF each phase
	 Metering kWh cumulative
	 Metering kVAh
	 Further system is able to indicate various faults
	 Failure of contactor
	 Status of the incoming supply (power failure)
	 High /low voltage
	 Overload on the phases
	The central CCMS unit is capable of handling
	minimum 2500 number switching point units.
	CCMS shall have server preferably dedicated server
	set-up or cloud based arrangement to ensure 100%
	guarantee of the data transmission and real time data
	storage for last 2 years (24 Months) and archived data
	for the contract period.
	Data authenticity and validation has to be ensured.
	Reports to be submitted in a common CVS format.
	Cyber security, safe database management, data
	retrieval and trouble free operation of software and
	allied systems (24*7) to be ensured.
	CCMS system should have a self-healing mechanism
	and in case of failure, Bidder to ensure resumption of
	service within 24 hours. Till resumption of full
	services, the default settings of the CCMS should
	ensure timely ON/ OFF operation of the street lights.
	System to report Jamming/ hacking attempts and spintage status are in second for largering / hacking attempts.
	maintain status-quo in case of Jamming/ hacking
	attempts i.e. if lights are ON, they should remain ON
	till the default OFF time recorded in the system. In
	case lights are OFF at the time of Jamming attempt/
	hacking, lights should remain OFF till default ON time
	recorded in the system.

5.3. LED control nodes

These lights will be capable of the following:

- 1. Central ON/OFF/Dimming control
- 2. Policy Based Control and operation
- 3. Energy Dashboard
- 4. Analytics

5.4. Power Conditioning Feeder Panels

The design and operation of feeder panels shall comply with SP 72 Part 8 of National Lighting Code 2010.

The typical specifications for the power conditioning panels shall be as follows:

- 1 Principle equipment should be designed on the basis of `Lossless Series Reactance with
 - Secondary Compensation' technology (Auto-transformer)
- 2 The efficiency of such principle equipment should not be less than 99.4% between 50%
 - 110% of loading
- 3 Other than basic switching components, no other moving parts are allowed to be installed in the feeder panel
- 4 240 VAC 50 Hz Single Phase Two Wire / 415 VAC 50 Hz Three Phase Four Wire Input
- 5 Three Taps of Single / Three Phase Four Wire Outputs
- 6 Standard Output Taps in each Phase at 200/205/210 VAC @ 240 VAC Nominal Input
- 7 Feeder panels should have GPRS/GSM based remote streetlight monitoring system with capacity for self-protection from short-circuit, over voltage and anti-theft alert
- 8 The rating of the Streetlight controller should be at least 1.3 times the lighting load as measured during the initial studies

- 9 Energy Meters to be installed in separately sealable and open able compartment within the Feeder Panels as per the following specifications:
 - Energy Meters should have Accuracy class of Class 1 or better;
 - II. Meters could be either three phase whole current or CT operated for LT as may be required based on the load connected to the feeder panel. The space to be created in the feeder panel for housing the meters should consider the same.
- 10 Energy Meters should be capable of logging parameters for each 15 minute time block with stamping of date and time. Such data logs should be retained in the energy meters for a period of 60 days or more.

Such Energy Meters should record the following minimum parameters:

- I. Phase to neutral voltages
- II. Phase-wise current
- III. Phase-wise power factor and frequency
- IV. Total active power
- V. Total reactive power
- VI. Total active energy
- VII. Total reactive energy
- VIII. Total KVAH energy
- 11 Meters should have requisite port (Serial port communication RS232 or RS485) for enabling remote reading and for connection of Modem for the same;
 - I. Energy Meter specifications should meet the minimum specifications specified by DISCOM and a sign-off on the same shall be obtained from DISCOM prior to finalizing the specifications;
 - II. Energy Meters shall be tested, installed and sealed in accordance with procedures specified by DISCOM;
 - III. A signoff from DISCOM on the design and specifications of the compartment in the Feeder Panel where the meters are to be housed is also recommended;
- 12 Bidder has to install appropriate power conditioning devices to protect the new EE technologies and components of feeder panels from damage. Poor power quality is not allowed as an excuse for non-functioning of the new technologies installed under the project
- 13 Fixed capacitor with appropriate capacity shall be introduced in each feeder panel to always maintain a power factor above 0.90
- 14 In case of Single phase controller unit, 1 pole contactor or multiple parallel pole contactors should be used and in case of 3 phases, appropriate duty 3 pole contactor should be used. The number of contactors used should be suitable for ON/OFF and for changeover between full voltages to various voltage taps and interchanging between taps. The panels should be equipped with a microprocessor based Dual Channel Almanac Timer controller which should be user programmable to enable setting of ON/OFF times and also switching over to savings mode/bypass mode when required

- 15 All the principle equipment's along with input output switchgears, metering, switches (bye pass and tap changers), contactors, fuses, auto transformer coils etc. should be of reputed manufacturers and should meet best engineering practices and norms as applicable in relevant standards
 - I. Auto transformer coil should have full current operating efficiency of better than 99%
 - II. The total heat dissipation from single coil should not exceed 6 wattssec/kVA under fully loaded condition
 - III. The rated current of the auto transformer should be for continuous 120% that of input rated current
 - IV. The switched fuse units should be of 32 Amp continuous AC current capacities. Fuses used should be of 20 Amp. Rating of high rupturing capacity (S/c current at least 50 kA)
- 16 The bidders should always ensure that the System is capable to capture live data and record it at variable time-intervals. Following parameters should be recorded for every 60-120 minutes time interval:
 - Voltages
 - II. Current
 - III. Power Factor
 - IV. Active Power (kW)
 - V. Apparent Power (kVA)
 - VI. Metering kWh cumulative
 - VII. Metering kVAh cumulative
 - VIII. Number of hours the lamps were glowing
 - IX. Special emergency on/off facility with wireless control.
- 17 Benchmarking capacity so as to generate alert SMS for:
- 18 Phase-wise currents on crossing threshold values Phase-wise voltages on crossing threshold values
 - I. Theft alerts
 - II. Group failure of lights
 - III. Contactor failure
 - IV. No output supply
 - V. Alert SMS shall be forwarded to five (5) phone numbers.
 - VI. GPRS/GSM modem should be used
- 19 Enclosure Box of feeder panels shall be IP-56 compliant and should be fabricated out of MS sheet SWG 16 / 14 duly powder coated for corrosion resistance and long life.
 - I. It should have Single Phase power socket for connecting utility tools like drill machine etc. (capacity 1phase 240Vac / 5Amp socket)
 - II. Utility Service Lamp inside Panel for use during maintenance work o Gland Plates for Cable Entry at Incomer and Outgoing
 - III. Auto Bypass / Tap Changing in lieu of Manual. The tap changing should be automatic between the full voltage and lower voltage for minimum two numbers selected taps.

- 20 The bidder shall have to get the control panels fabricated from the vendor having type test certificate from CPRI for 31 MVA short-circuit rating up to 400 amp for cubical panels. The copy of the type test certificate shall also have to be produced failing which feeder panels shall not be accepted
- 21 Design life of the control panel should be mentioned in form of MTBF (mean time between failures) and it should be minimum 10 years.

5.5. Remotely Controlled Power conditioning requirement for Feeder Panels

5.5.1. Voltage Control:

- 1 240 VAC 50 Hz Single Phase Two Wire / 415 VAC 50 Hz Three Phase Four Wire Input
- 2 Three Taps of Single / Three Phase Four Wire Outputs
- 3 Standard Output Taps In Each Phase at 200/205/210 VAC @ 240 VAC Nominal Input
- 4 Real time clock
- 5 Three independent channels / output relays (desirable up to 4) with independent ON and OFF programming possibility remotely (User settable)
- 6 System losses should be less than 1% so as to achieve high efficiency.
- 7 Should not introduce any harmonics into the system but should reduce it.
- 8 Other than basic switching components, no other moving parts should be there.
- 9 During voltage tap changing, lights should not be momentarily disconnected which will lead to re-ignition of lights. It is mandatory for supplier to make gapless changeover arrangement when changing from by-pass mode to & from lower voltage energy saving mode and interchanging between the taps. This should be achieved by supplier by any specialized arrangements. The user is expected to produce the Performance assessment certificate for minimum continuous 100 such changeover operations without any lamps going off in any of the three phases at minimum and Maximum supply voltage conditions. This certificate should be received from reputed Laboratory organizations like CPRI, ETDC, ERTL, IDEMI, SAMEER etc.
- 10 Voltage Rating: 170V to 290V.
- 11 Over-ride for local operation time settings from the central PC on every individual device for user definable time frame with a specific display on the particular device where such override is implemented
- 12 Almanac sunrise and sunset table operation (User selectable option)
- 13 User settable selection between GSM / GPRS operation and manual local operation
- 14 Control of operation times settings from the central PC (in case of GSM)
- 15 Specific data request whenever user desires from control PC
- 16 Fault reporting to central PC and user definable Cell Phone number
- 17 3 No's Auxiliary Output NO/NC contacts with 5 Amp rating at 240 VAC and 2 no's Auxiliary input terminals (12Vdc or 240Vac) should be provided

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5.5.2. Data monitoring

- 1 Class I (Minimum) accuracy of measurement of data
- 2 All load parameters like Individual phase voltage, current, power factor, VA, Watts. In addition, WH (energy) also should be logged on a continual basis
- 3 Data monitoring interval One hour (desirable programmable from 1 min to 120 min)
- 4 Serial port communication (RS232) AND (RS485- Desirable)
- 5 Minimum data storage for 12 months (if data logged at 1 hour intervals)
- 6 All data stored in the device regardless of whether the data has been transmitted to the central PC via GSM or not. Such data can then be later downloaded by the user on to a HHU

5.5.3. Other

- 1 Individual device ID user settable
- 2 Password protected access to control functions
- 3 Operating temperatures up to 55 deg. centigrade continuous
- 4 Humidity up to 98% (Non condensing)
- 5 Software for data monitoring, control, communication and analysis
- 6 GPRS software for live viewing & controlling of functions of every individual unit on a static IP address
- 7 Providing automatic controller compatible with GPRS / GSM or suitable protocol at individual panel level. Controller would perform meter reading, switching, data logging, communication and control.
- 8 Individual meters / controllers operating in given protocol to communicate with individual unaccounted lamps in a given area
- 9 Control cabinet fault monitoring

5.5.4. Central Control Unit should provide additional features and daily user defined report. These features should include

- Support to export reports on website to other application formats like MS Access, DB, SQL, Oracle etc.
- 2 Printout facility available on web pages
- 3 Inbuilt scalability to support large lighting network. Upto 250 no's of RTUs should be possible to be controlled from one Central Control Unit
- 4 High up-time and immediate fault rectification through SMS intimation to maintenance team.
- 5 Simplified maintenance
- 6 Real-time control

5.5.5. **Faults Monitoring:**

- 1 Under/over voltage detection
- 2 Main breaker error
- 3 Contactor fault
- 4 Circuit breaker off
- 5 Circuit phase errors (fuse, breaker, etc.)
- 6 Main power failure
- 7 Leakage to ground
- 8 Manual switch activated
- 9 Phase current out of range
- 10 Control cabinet door open
- 11 Lamp failures

Complete monitoring on image of the entire geographic area at the screen and with projector attachment - on back wall, where the operators monitor the streetlight and dispatch maintenance teams. Any alarms and their exact location should be shown on the map for easy and fast overview. System should incorporate hardware modules in the control cabinets and enable communication from the central server location to the control cabinets via wireless (e.g. GSM/GPRS).

Power conditioning and Energy Management Panels 5.6.

The Power conditioning and Energy Management Panels to be installed for the Street lighting system of city shall adhere to the following technical specifications **General Operating Features:**

- The panel should have provision for 'Auto-Switching' of the street light feeder pillar based on ALMANAC timer which shall ensure that the lights switch on and off at the desired time according to the variations in sunrise and sunset timings throughout the year.
- 2. The panel shall comprise of fixed capacitor banks of suitable ratings as required to maintain the power factor of the street light feeder between 0.99 lagging and unity
- 3. The panel shall have a provision of voltage based dimming for energy saving at user selectable time intervals. Selectable choice of Energy Saving mode /Bypass Mode shall be provided.
- 4. A 3 phase programmable multifunction meter (energy meter) conforming to relevant standards with accuracy of class 1 installed in a separate lockable compartment with window shall be provided which shall display relevant electrical parameters like Voltage, Current, Power, Power Factor and Energy consumption for all 3 phases.

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- 5. 3 no's separate R , Y and B indicating lamps for corresponding phases shall be provided
- 6. The incoming switchgear shall be Molded Case Circuit Breaker of suitable rating. Rating of switchgear, cables, bus-bars etc. shall be selected based on detailed analysis of load on respective feeder pillar.
- 7. The panel shall have provision of bypassing the complete power and control circuit of the feeder pillar in case of failure or for maintenance. The indicating lamps and the energy meter shall not be bypassed and shall remain in circuit under all conditions.
- 8. Suitable Earth leakage protection shall be provided in the panel.

(Note: It is usually observed that there is always some leakage currents in street lights circuits. If Earth Leakage Circuit Breaker (ELCB) is provided, this leakage current will keep on tripping the ELCB thus operating the panel continuously in bypass mode. NMCs shall confirm in this regard.)

9. The panel shall be designed in such a way that the load shifting from one phase to the other phase on outgoing shall not be possible, as in such case the entire load of other phase will get shifted to one phase causing overloading of switchgear, bus bars and cables and reactor coil. Therefore on the outgoing side only switching mechanism shall be accessible to the operators.

<u>OR</u>

In case single phasing is common in some areas then the switchgear, cable and bus bar rating inside the panel must be rated 3 times of rated capacity however this load shifting shall bypass reactor coil and timer circuit to prevent overloading.

ALMANAC TIMER

Detailed specification:

- Supply voltage: 110V to 240 V AC
- 2. Supply Variation: -20% to 10%
- 3. Frequency: 50 Hz
- 4. Operating temperature: -10 deg to 55 deg C.
- 5. The timer shall conform to relevant IS standards.
- 6. The timer shall have programmable latitude/longitude precise to the minute along with time zone.
- 7. The timer shall have sunrise/sunset or twilight rise/set trigger modes
- 8. 12/24 hour display format shall be available
- 9. The timer shall have at least 6 years of battery reserve
- 10. Manual override and keypad lock feature shall be provided

11. The timer shall be easy to program and navigate

5.7. Components of the Smart LED lighting System

The Smart LED system will have the following components essentially:

- 1. The LED luminaire
- 2. Control nodes based on Wireless Technologies like Wi-Fi / Zig Bee / Lora / 802.15.4 / GPRS etc.
- 3. Central Control and Management Software platform

Note: The light fitting needs to be install depending on the importance and category of roads and to achieve the LUX Level.

5.8. Smart Street Lighting technical Specifications

Control node features & Specification: The Bidder has to provide the Control Nodes confirming to the following specifications:

Sr. No.	Specification Specification	Compliance (Yes/No)
1	Ability to control individual lights based on commands and policies	
2	The smart light should be using technologies like 0-10V or DALI or any variant of these for providing controlling of LEDs	
3	It is preferred that the smart light control nodes use industry standard RF technologies like Wi-Fi, 802.15.4, Zig Bee, Lora or GPRS as connectivity options	
4	The system should support reading, monitoring of various electrical parameters like Voltage, Current, Power Consumption etc. at each light.	
5	The system should have the ability to detect faults in individual lights and sent alerts and notifications to the management system	
6	The system should have ability to control the ON/OFF operation of the Luminaire centrally.	
7	The smart street lighting system should be able to operate at any weather Conditions	
8	The smart street lighting system should preferably be communicating using WIFI technology. Other allowed technologies can be Zig Bee, Lora and IEEE 802.15.4/Ethernet/Wi-Fi/Fiber/GPRS/RF or equivalent networks.	
9	The smart street lighting system should be able to communicate to the CCMS hosted on the cloud (Preferably)	

Sr. No.	Specification	Compliance (Yes/No)
10	The smart street lighting system should have the capability to receive the instruction from the Lighting Operations Management software and act accordingly	
11	The smart street lighting system should be able to operate the lights switch on/off, increase/decrease luminosity (Dimming) as per the command received from the Lighting Operations Management software	
12	The Lighting Operations Management software should have the capability to apply policies to the smart lighting system. Example: set up policies like light up alternate lights during low traffic density, increase the luminosity of the lights as per the dullness of the day lights	
13	The city administration should be able to see the real time status of the Smart Lighting System on a city map view of the Lighting Operations Management software	
14	The city administration should be able to operate the Smart Lighting System manually too.	
15	The smart lighting system should be able to communicate the system issue or failure to the Lighting Operations Management software.	
16	The smart lighting system are preferably a combination of LED lights and sensors	
17	The individual lights are to be monitored by electronic controller using a long range radio frequency communication technology	
18	The controller should be able to operate autonomously as per the defined schedules and light level sensors	
19	Should enable Over the Air (OTA) firmware update	
20	The sensors on the smart street lighting system should be able for remote operating capabilities.	
21	The rule engine set up on the Lighting Operations Management software should run on the real time data and apply the policies automatically	
22	At any time, these policies can be overridden by human intervention with the system	

Sr. No.	Specification	Compliance (Yes/No)
23	At any point in time, the map view should give the details of the status, luminosity of the lights in city map view	
24	The data transmitted by and received from the sensors should be encrypted and tamper proof end to end (from sensor to application)	
25	The sensor firmware should be upgradable from the central location.	
26	The system should allow to automatically or manually assign a GPS location to each sensor for placing on a GIS map.	
27	THE Lighting Operations Management software should be able to send commands to the smart street lighting system based on the data analytics to increase/decrease the luminosity as per the Day light and weather conditions.	

5.9. LED Driver

- 1. Type Test report as per IS: 15885- Part 5 sec-13, IS: 16104.
- 2. Test report as per tender specification (drive efficiency, THD, Surge protection 6kv)
- 3. NMSCDCL is at liberty to verify genuineness of LM79/NABL test report and other supporting documents from the LAB/LED manufacture.
- 4. NABL certificate should be submitted within 90 days of bid submission.

Request for Proposal for Selecti	on of Concessionaire for Imr	Namonting Smart I ED Stra	at Lights for ARD area in Nas	hik City

Section: VI – Pre- Bid Meeting

6. Pre-Bid conference

- 1 Pre-Bid conference of the Bidders shall be convened at the designated date, time and place. A maximum of two representatives of each Bidder shall be allowed to participate on Production of authority letter from the Bidder. However, attendance is not mandatory.
- 2 The Bidders need to submit the pre-bid queries at least 2 working days before the scheduled Pre-bid meeting, in the following format as per the deadline mentioned in section 2.1 of the RFP.

Sr. No.	RFP Document Reference (Section No.)	RFP Document Reference (Clause No.)	RFP Document Reference (Page No.)	Content of the RFP requiring clarification	Clarification Sought	Reason for Clarification/ Change

Note: Queries without proper reasoning will not be entertained. Reasons like 'company policy' and 'industry standard' will not be considered as proper reasons.

3 During the course of Pre-Bid conference(s), The Authority-1 shall endeavor to provide clarifications and such further information as it may, in its sole discretion, consider appropriate for facilitating a fair, transparent and competitive Bidding Process

Request for Proposal for Selection	of Concessionaire for Imp	Namontina Smart I ED	Stroot Lights for ARD	area in Nachik City

Section: VII – Service Level Agreements

7. Service Level Agreement

7.1. Implementation SLAs:

These SLAs shall be used to evaluate the timelines for completion of deliverables that are listed in the deliverable. These SLAs will be applicable for commissioning of the project (up to GO-LIVE). For delay of every week in completion & submission of the deliverable mentioned in the proposal, the bidder would be charged with penalty as follows:

#	Duration	Penalty
1	Per Week	1% of the Performance Security (Maximum 12% of Performance Security)

In case, the Bidder reaches maximum of penalty at any point of time, NMSCDCL reserves the right to invoke the termination clause.

In case of implementation phase, the penalty will be levied from the Performance security.

It is clarified that in case of encashment of performance bank guarantee on account of penalty, the Concessionaire shall provide a fresh Bank Guarantee for such encashed amount within 15 days of notice of encashment served by NMC to it so that the overall amount of Performance Bank Guarantee(s) shall remain for the original complete amount at all times.

7.2. Post-Implementation SLAs:

- 1 These SLAs shall be used to evaluate the performance of the services on weekly basis but penalties would be levied for cumulative performance for the quarter basis.
- 2 Penalty levied for non-performance as per SLA requirements shall be deducted through subsequent payments due from Corporation or through the Performance Bank Guarantee.
- 3 The SLA parameters shall be measured for each of the sub systems' SLA parameter requirements and measurement methods, through appropriate SLA Measurement tools. NMSCDCL will have the authority to audit through tools for accuracy and reliability.
- 4 The upper limit of penalty would be capped at 1% of the Performance Security for each quarter. In case the calculated penalty crosses 10% penalty of the Performance Security. NMSCDCL reserves the right to invoke the termination clause.

#	Uptime SLA (Monthly)	Penalty Clause
1	Uptime >= 99.5%	No Deduction
2	Uptime < 99.5%	(99.5%- Uptime %) of Quarterly Payment. For example if uptime of component is 95%, then penalty imposed will be 99%-95% i.e. 4% of Quarterly Payment.

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Note:

1. For LED luminaries:

- a. Downtime means non-working/ non-availability of LED luminaries at all locations. Uptime shall be calculated as [1- (no. of LED luminaries hours not available)/ (Total no of LED luminaries* Half of the total hours in one quarter)]. For ex, if 600 nos. of LED luminaries are deployed at various locations, and 20 LED luminaries do not work for 1 hour, the total non-working LED luminaries hours will be 20 and the uptime would be {1-(20/(600*90*12)}, 600 being the number of LED luminaries, for 90 days on 12 hours basis. This down time will be used for penalty calculations on quarterly basis.
- b. Downtime for single LED luminary at any location should not be greater than 72 hours. For every day beyond this, penalty of Rs.200/- per LED luminary per location would be applicable in addition to penalty specify as per downtime SLA as mentioned above.

2. For Smart Street Lights and other systems:

a. All devices have to be working and deliver the desired results. The no. of hours that the particular device/ equipment does not work will be treated as down time. Uptime shall be calculated as [1- (no. of hours the unit was not working) / (Total no of units available * Total hours in one quarter)]. For example, if 10 nos. of Smart LED are deployed at various locations, and 2 device/ units does not work for 5 Hrs., the total non-working device hours will be 10 unit hours, and the uptime would be {1-10/(10*90*24)}, 10 being the number of units, for 90 days on 24 hours basis. This down time will be used for penalty calculations on quarterly basis. The penalties would be levied for every unit down time hour— be it for non-availability of network, theft, damage etc.

3. Other Penalties

- a. It is expected that the bidder should comply with all the Policy /Procedural / Regulatory Guidelines enforced by Government of India, Government of Maharashtra, and other statutory and related bodies, as amended from time to time. The bidder should also safeguard the Application Security and Application Integrity. Penalty would be applicable for non-compliance of relevant security certifications. There would be Zero Tolerance policy against such breaches. The penalties across various breaches could be categorized as follows (this includes but not limited to the following):
 - i. Information Security Breach: Any data leakage, information sharing, reports sharing without the consent of NMSCDCL.
 - Network & System Security Breach: Any instance of hacking, information / data compromise, unauthorized access to public Wi-Fi.
 - iii. Guidelines Breach: Non-compliance to guidelines shared by various government agencies such as complying with standards for website/mobile app development etc.
 - iv. For any of the breach for above-mentioned category, a penalty would be levied on the Bidder for every instance of occurrence if not responded as per the timelines mentioned in the table below:

Sr. No.	Type of Breach	Measurement (Unit)	Response Time (in unit)	Penalty on response w.r.t. delay /Unit
1	Information Security	Hours	1	0.2% of the Quarterly payment
2	Network & System Security	Hours	1	0.2% of the Quarterly payment
3	Guidelines	Days	7	0.2% of the Quarterly payment

- b. The response time refers to immediate remedial action taken and preventive measures updated by the bidder on occurrence of the event. In case the breaches are not responded to in the time frame as specified, penalties would be levied as per the table above and failing to address the breach in desired timeline, recurring penalties would be levied w.r.t. to delay in units as mentioned. For example, in case of an Information Security Breach, the bidder has to respond within one (1) hour of the event occurrence. If the bidder responds in 02 hours 15 minutes, a penalty on pro-rata basis equivalent to (0.2% of first hour + 0.2% of Second Hour + 0.05% for 15 minutes) =0.45% would be imposed on the bidder.
- c. In case of more than three (3) instances of breach within a single calendar year, NMSCDCL reserves the right to invoke the termination clause along with legal action would be initiated for serious offence as decided by NMSCDCL.
- d. Guidelines Breach includes non-compliance to certain guidelines as set by various agencies like Ministry of Communications and Information Technology, Department of Science and Technology, or other statutory Authorities etc. In such cases, resolution of the issue is mandatory. The bidder would be required to respond with the action plan / change request, as applicable, in order to resolve the guidelines breach within the specified response time.

Performance Parameter	Particulars	Penalty for non-achievement
Complaint	The complaint needs to be	Rs.100/lamp/day
Resolution	solved within 48 hours of	
	lodging of complaint	
Addressing	The phase failure should be	Rs.500/phase/day
phase failure	resolved within same day	Rs.500/visit if Authority staff is
issue		engaged for resolving phase issue

Performance	Particulars	Penalty for non-achievement
Parameter		
Hours of	As per normal operating	Increased bill amount +100% as a
operation of	hours	penalty on this increased bill if
street lights		average hours of operation per
		annum is more than 11 hours/day
		without approval of Authority.
Guaranteed	Concessionaire has to	Rs. 50,000 per month for every 1%
savings	maintain the minimum	reduction in minimum guaranteed
	guaranteed savings	energy saving. In case the savings
		fall below 50%, concessionaire
		will not be made any payments
		towards energy savings.

4. Penalty for non-compliance with electrical safety related matters

In case the Concessionaire is found to be negligent in matters pertaining to electrical safety as per the requirement specified in Clause 4.10 of RFP, he shall be penalized by Authority to the extent of five times the value of actual damage caused to the street lighting infrastructure/other assets which will be ascertained by proper investigation to be undertaken by Authority.

In case the Concessionaire does not undertake electrical safety audit as per the requirement specified in Clause 4.10 of RFP, the Concessionaire shall be penalized by Authority to the extent of three times the cost of undertaking electrical safety audit as determined by Authority.

5. Penalties assessment

The Concessionaire will be required to submit, at start of every month, detailed CCMS report capturing energy consumption at each CCMS panel, hours of operation, details of events like phase failure, non-operational light points, etc. to Authority

Office of Authority or the third party consultant hired by Authority will conduct reconciliation of CCMS report and DISCOM bills semi-annually and any discrepancies observed in the savings of CCMS report would be adjusted in the subsequent invoice of the Concessionaire.

6. Theft of Electricity and Material

In case of theft of the material or electricity, the Concessionaire will inform the Authority immediately and NMSCDCL will facilitate filing of FIR. Further, after FIR, the Concessionaire will address the theft by replacement of material or removing illegal electricity connection as the case may be, in presence of Authority representative officials. The Concessionaire will have to bear the cost for the losses in material. However, in case of theft of electricity, the feeder panel specific consumption would be adjusted for the theft after inspection and subsequent proof.

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8. Annexures

8.1. Annexure I: Templates

- 1. The Concessionaire is expected to respond to the RFP using the forms given in this section and all documents supporting Technical Evaluation Criteria.
- 2. Envelope A shall comprise following forms:
 - a. Form 1: Technical Proposal Covering Letter
 - b. Form 2: Details of Bidder
 - c. Form 3: Power of Attorney
 - d. Form 4: Curriculum Vitae of Key Personnel
 - e. Form 5: Proposed Implementation Work plan
 - f. Form 6: Declaration for opening of office in Nashik
 - g. Form 7: Declaration that the Concessionaire has not been blacklisted
 - h. Form 8: Technical Capacity of the Bidder
 - i. Form 9: Financial Capacity of the Bidder
 - j. Form 10: Joint Bidding Agreement
- 3. Envelope B: Annexure II: Compliance Forms
- 4. Envelope C: Annexure III: Financial Proposal Templates
- 5. Annexure IV: Draft Agreement
- 6. Annexure V: Format for Report
- 7. Annexure VI: Format of Bank Guarantee for Performance Security

8.1.1. Form 1: Technical Proposal Covering Letter Place: Date: To. Chief Executive Officer Nashik Municipal Smart City Development Corporation Ltd. Rajiv Gandhi Bhavan, Nashik Municipal Corporation, Sharanpur Road, Nashik-422001 Ref: dated for selection of Concessionaire for implementing Smart LED Street Lights for ABD area under Nashik Smart City, Nashik on Design, Build, Finance, Operate and Transfer (DBFOT) Basis. Bid Reference No: Sub: Technical Proposal covering Letter Dear Sir, We, the undersigned, offer to provide the services for implementing Smart LED Street Lights for ABD area in Nashik on Design, Build, Finance, Operate and Transfer (DBFOT) Basis in accordance with your Request for Proposal dated [Insert Date]. Our attached Technical Proposal is based on our full understanding of scope of work, requirements, terms and conditions and we unequivocally accept the same and shall be binding as mentioned in the RFP. We agree to undertake the project for a period of 7.5 years including implementation phase of 6 months and 7 years of O&M in accordance with the terms of the Bidding Document. Yours sincerely, Signature: Name: Designation: Address: Date: Company Seal:

8.1.2. Form 2: Details of Bidder

Bidder's Details

	Details
Bidder Name:	
state of incorporation:	
Address of the corporate headquarters and its branch office(s), if any, in India:	
Date of incorporation and/ or commencement of business:	
Corporate Identity Number:	

Brief description of the Bidder including details of its main lines of business and proposed role and responsibilities in this Project(s):

Details of individual(s) who will serve as the point of contact/ communication:

	Details
Name	
Designation	
Company	
Address	
Telephone Number	
E-Mail Address:	
Fax Number:	

Particulars of the Authorized Signatory of the Bidder:

	Details
Name	
Designation	
Address	
Telephone Number	
E-Mail Address:	
Fax Number:	

In case of a Consortium

The information above (1-4) should be provided for all the Members of the Consortium. Jt. Bidding Agreement, should be attached to the Proposal.

Information regarding role of each Consortium Member should be provided as per table below:

Sr. No.	Name of Consortium Member	Role of Consortium Member	Percentage of equity in the Consortium

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8.1.3. Form 3: Power of Attorney

8.1.3.1. Form 3A: Power of Attorney for signing of bid

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.)

Know all men by these presents, we
The aforesaid Attorney is further authorized for making representations to NMSCDCL and providing information/ responses to NMSCDCL representing us in all matters before NMSCDCL and generally dealing with NMSCDCL in all matters in connection with Bid till the completion of the Bidding Process.
We hereby agree to ratify all acts, deeds and things done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall be binding on us and shall always be deemed to have been done by us.
All the terms used herein but not defined shall have the meaning ascribed to such terms under the TD.
Signed by the within named
Through the hand of
Mr. / Ms
Duly authorized by the Board to issue such Power of Attorney

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Dated this day of
Accepted
Signature of Attorney
(Name, designation and address of the Attorney)
Attested
(Signature of the executants)
(Name, designation and address of the executants)
Signature and stamp of Notary of the place of execution
Common seal of has been affixed in my/our presence pursuant to
Board of Director's Resolution dated
WITNESS
(Signature)
Name
Designation
(Signature)
Name
Designation
Notes:

The mode of execution of the power of attorney should be in accordance with the

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procedure, if any, laid down by the applicable law and the charter documents of the

executants(s) and the same should be under common seal of the executants affixed in accordance with the applicable procedure. Further, the person whose signatures are to be provided on the power of attorney shall be duly authorized by the executants(s) in this regard.

Also, wherever required, the executants(s) should submit for verification the extract
of the chartered documents and documents such as a Board resolution/ power of
attorney, in favor of the person executing this power of attorney for delegation of
power hereunder on behalf of the executants(s).

8.1.3.2. Form 3B: Power of Attorney for Lead Member by other members of the Consortium

(On Non- Judicial Stamp paper of appropriate value to be purchased in the name of Consortium)

Know All Men By These Presents That We, the Members whose details are given hereunder have formed a
Consortium and having our Registered Office(s)/ Head Office(s) at
unless repugnant to the context or meaning thereof, include its successors,
administrators and assigns) do hereby constitute, nominate and appoint
M/s having its
Registered/ Head Office at
Attorney (hereinafter called "Lead Bidder") to exercise all or any of the powers for and
on behalf of the CONSORTIUM to participate in Bid for, as per the
scope of work stipulated therein for which Bids have been invited by the Nashik
Municipal Smart City Development Corporation Limited (NMSCDCL), to undertake the
following acts:
Tollowing acts.
(i) To submit Bid, participate and correspond in respect of the aforesaid Bid on behalf of the "Consortium".
(ii)To negotiate with NMSCDCL the terms and conditions for award of the contract
pursuant to the aforesaid bid and to sign the contract with the NMSCDCL ("Contract")
for and on behalf of the "CONSORTIUM".
Tor and on Benan or the Contontrion.
(iii) To do any other act or submit any document related to the above.
(iv) To receive, accept and execute the Contract for and on behalf of the "Consortium".
(v)To submit the performance security or additional performance security in the prescribed format and as per terms of the Contract.
It is already understood that the Load Didder shall ansure newformance of the Contract
It is clearly understood that the Lead Bidder shall ensure performance of the Contract
and if either of the members fail to perform their respective portion of the Contract, the same shall be deemed to be a default by all the members.
same shall be deemed to be a deladit by all the members.
It is expressly understood that this power of attorney shall remain valid, binding and
irrevocable till completion of the Contract period i.e., from the date of
execution of the Contract.
The consortium hereby agrees and undertakes to ratify and confirm all the whatsoever

NMSCDCL and/or proposes to act on behalf of the Consortium by virtue of this Power of Attorney and the same shall bind the Consortium members as if done by itself.

In Witness Thereof, the members constituting the Consortium as aforesaid have executed these present on thistwo
For and on behalf of the member of the Consortium
1
2
Accept
Ассері
(Signature)
(Niemas Title and Adduses of the Attenney)
(Name, Title and Address of the Attorney)

- 1. The mode of execution of Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.
- 2. Also, wherever required, the executant(s) should submit for verification the extract of the charter documents and documents such as a resolution / Power of attorney in favor of the Person executing this power of attorney for the delegation of power hereunder on behalf of the executant(s).

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Notes:

8.1.4. Form 4: Curriculum Vitae of Key Personnel

The Bidder shall provide a team of professional comprising following Key Personnel, dedicated for the Project. :

#	Key Personnel	Required Experience
1	Project	More than 10 years of experience in the energy/ street light
	Manager(1)	management sector, and having worked for at least one street light network system project in a town or an area of the town covering street lights of 9,000, managing operation & maintenance and management of the project for at least 2 year
2	Site Engineer (6)	More than 3 years of experience in the energy/ street light management sector, and having worked for at least one street light network system project in a town or an area of the town covering street lights of 1,000, managing operation & maintenance and management of the project for at least 1 year
3	Call Centre Executive – Complaint Redressal (1)	More than 5 years of experience in the customer services for a utility projects.

Over and above adequate number of technicians and gangs of Street Light Workers would be provided as approved by Independent Engineer. The Bidder shall provide curriculum vitae of these key personnel in the format provided below

Curriculum vitae (CV) format to be submitted with application for qualification

1	Proposed Position				
2	Name Of Staff				
3	Date Of Birth				
4	Nationality				
5	Personal Address				
6	Telephone No				
7	Fax No				
8	E-Mail Address				
9	Educational				
	Qualification				
10	Other Training :				
11	Languages And Degree	Languages	Speak	Read	Write
	Of Proficiency				
12	Membership In				
	Professional				
	Associations				
13	Professional				
	Experience				
14	Work Experience In				
	The Relevant Field For				
	The Project				

EMPLOYMENT RECORD: STARTING FROM THE MOST RECENT									
Period	Employing organization and title / position	Country	Summary of activities performed						

DETAILED TASK ASSIGNED						
TASK	PROJECTS HANDLED					

Experience on relevant	projects/assignments
Name of Project: Year	
Year	
Location	
Client	
Main Project features	
Position held	
Activities performed	
Documentary evidence	attach separately for each relevant project/ assignment

- I, the undersigned, confirm that
 - 1. To the best of my knowledge, this CV correctly describes myself, my qualifications, and my experience; and
 - 2. I am not employed by the NMSCDCL

I understand that any willful mis-statement in this CV may lead to my disqualification or dismissal, if engaged.

[Date]

(Name of Key Personnel)

Countersigned by-

(Signature of the Authorized Signatory)
(Name and designation of the Authorized Signatory)
(Name and seal of the Bidder)

8.1.5. Form 5: Proposed Implementation Work plan

Sr. No.	Activity	Months*												
		1	2	3	4	5	6	7	8	9	10	11	12	
1														
2														
3														
4														
5														
6														
7														
8														
9														
•														
•														
•														
•														
•														
•														
•														
							•							

Indicate all main activities and drill down to sub-activities of the assignment, including delivery of reports and other benchmarks.

^{* --} Duration of activities shall be indicated in the form of a bar chart.

8.1.6. Form 6: Declaration for setting-up of office in Nashik, Maharashtra

8.1.7. Form 7: Format for Declaration by the Bidder for not being blacklisted/Debarred

(In case of Consortium, to be provided by all the members of the Consortium)

(On the non-judicial stamp paper of appropriate value)

Place:
Date:
To, Chief Executive Officer Nashik Municipal Smart City Development Corporation Limited (NMSCDCL) Rajiv Gandhi Bhavan, Nashik Municipal Corporation, Nashik-422001
Ref: RFP No dated for selection of Concessionaire for implementing Smart LED Street Lights for ABD area under Nashik Smart City, Nashik on Design, Build, Finance, Operate and Transfer (DBFOT) Basis. Subject: Declaration for not being debarred/ black-listed by Central/ any State Government department in India as on the date of submission of the Bid.
Dear Sir,
authorized representative of, hereby solemnly confirm that the Company is not debarred / black-listed by any Central/State Government/ PSU entity in India for unsatisfactory past performance, corrupt, frauduler or any other unethical business practices or for any other reason as on date of submission of the Bid.
n the event of any deviation from the factual information/ declaration, NMSCDCL reserve he right to reject the Bid or terminate the Contract without any compensation.
hanking you.
ours faithfully,
Gignature of Authorized Signatory (with official seal) Date: Name: Designation: Address: Telephone &Fax: E-mail id:
CEO, NMSCDCL Concessionaire

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8.1.8. Form 8: Technical Capacity of the Bidder

#	Particulars Particulars	Details of the project
1	Name of the project	
2	Name of the project Corporation	
3	Entity claiming for the Technical Capacity – Bidder/ Associate	
4	If in case of Associate, then the relationship with the Bidder and details (Attach extra sheets, if necessary)	
5	Client name	
6	Period of the project construction and commencement	Construction period – from dd/mm/yyyy to dd/mm/yyyy Project commencement date – dd/mm/yyyy
7	Location	1
8	Project cost (Rs. crore)	
9	Project scope Role played by the Bidder / Associate	
10	Equity holding of the Bidder/ Associate in the project executing company/ consortium	
11	Certificate provided by the Bidder/ Associate	

Instructions:

- 1 The Bidder is expected to provide information in a format provided above for a project, matching Qualification criteria as stipulated in Clause 2.4, of this RFP Document.
- 2 Certificates from the Bidder's statutory auditor or the client concerned must be furnished for the project. In jurisdictions, that do not have the statutory auditors, the auditors who audit the annual accounts of the Bidder should provide the requisite certification.
 - It may be noted that, in case of an absence of the proper certificate, as mentioned hereinabove, the information would be considered an inadequate and would lead to the exclusion of the project, in determining the Technical Capacity of the Bidder.

8.1.9. Form 9: Financial Capacity of the Bidder

Average Annual Turnover

Annual Turnover of the Firm for the last three financial years 2014-15, 2015-16, 2016-17 along with balance sheet for last three years.

#	FY	Turnover in INR Lakhs
1.	2014-15	
2.	2015-16	
3.	2016-17	
	Average Turnover	INR Lakhs

Average Net Cash Accrual

Net Cash Accrual of the Firm for the last three financial years 2014-15, 2015-16, 2016-17

#	FY		FY Turnover in INR Lak		Turnover in INR Lakhs
1.	2014-15				
2.	2015-16				
3.	2016-17				
	Average Accrual	Net	Cash	INRLakhs	

(Signature of Authorized Person with Seal) (With Member ship Number) Date:

Signature of Chartered Accountant Date:

8.1.10. Form 10: Joint Bidding Agreement

(To be executed on stamp paper of appropriate value)

AMONGST

1. ,...... Limited, a company incorporated under the (Indian) Companies Act, 1956and having its registered office at (hereinafter referred to as the First Part which expression shall, unless repugnant to the context include its successors and permitted assigns);

And

2. Limited, a limited liability company incorporated under the (Indian) Companies Act, 1956} and having its registered office at (hereinafter referred to as the Second Part which expression shall, unless repugnant to the context include its successors and permitted assigns)

The above-mentioned parties of the FIRST and SECOND PART are collectively referred to as the Par ties and each is individually referred to as a Party.

WHEREAS,

- A. The Nashik Municipal Smart City Development Corporation Limited hereinafter referred to as NMSCDCL has invited Bids by its Request for Proposal Tender No. (the RFP) for Appointment of the Concessionaire for Implementation of NMSCDCL Street Light Project on DBFOT basis (the Project);
- B. The Parties are interested in jointly bidding for the Project as Consortium Members (as defined below) and in accordance with the terms and conditions of the Bidding Documents including the RFP; and
- C. It is a necessary condition under the RFP that the members of the Consortium shall enter into a Jt. Bidding Agreement and furnish a copy thereof with the Bid.

NOW IT IS HEREBY AGREED as follows:

1. Definitions and Interpretations

In this Agreement, the capitalized terms shall, unless the context otherwise requires, have the meaning ascribed thereto under the RFP.

2. Consortium

The Parties do hereby irrevocably constitute a consortium (the Consortium) for the purposes of jointly participating in the Bidding Process for the Project. The Parties hereby undertake to participate in the Bidding Process only through this Consortium and not individually and/or through any other consortium constituted for the Project, either directly or indirectly.

3. Covenants

The Parties hereby undertake that in the event the Consortium is declared the Preferred Bidder and awarded the Project, for performing all its obligations as the Concessionaire in terms of the Concession Agreement for the Project.

4. Role of the Parties

The Parties hereby undertake to perform the roles and responsibilities as described below:

- a. Party of the First Part shall be the Lead Consortium Member of the Consortium and shall have the power of attorney from Second Part for conducting all business for and on behalf of the Consortium during the Bidding Process and until the Effective Date under the Concession Agreement when all the obligations shall become effective;
- b. {Party of the Second Part shall be ______.}
- 5. **Joint and Several Liability** The Parties do hereby undertake to be jointly and severally responsible for all obligations and liabilities relating to the Project in accordance with the terms of the RFP, the Concession Agreement and for the performance of the Concessionaire's obligations under the Concession Agreement.

6. Representation of the Parties

Each Party represents to the other Parties as of the date of this Agreement that:

- such Party is duly organized, validly existing and in good standing under the laws of its incorporation and has all requisite power and NMSCDCL to enter into this Agreement;
- b. the execution, delivery and performance by such Party of this Agreement has been authorized by all necessary and appropriate corporate or governmental action and a copy of the extract of the charter documents and board resolution/power of attorney in favor of the person executing this Jt. Bidding Agreement for the delegation of power and NMSCDCL to execute this Jt. Bidding Agreement on behalf of the Consortium Member is annexed to this Agreement, and will not, to the best of its knowledge:
 - i. require any consent or approval not already obtained;
 - ii. violate any applicable law presently in effect and having applicability to it;
 - iii. violate the memorandum of association and articles of association, bylaws or other applicable organizational documents thereof;
 - iv. violate any clearance, permit, concession, grant, license or other governmental authorization, approval, judgment, order or decree or any mortgage agreement, indenture or any other instrument to which such Party is a party or by which such Party or any of its properties or assets are bound or that is otherwise applicable to such Party; and
 - v. create or impose any liens, mortgages, pledges, claims, security interests, charges or any other encumbrances or obligations to create a lien, charge, pledge, security interest, encumbrances or mortgage in or on the property of such Party, except for encumbrances that would not, individually or in the aggregate, have a material adverse effect on the financial condition or prospects or business of such Party so as to prevent such Party from fulfilling its obligations under this Agreement;
- c. This Agreement is the legal and binding obligation of such Party, enforceable in accordance with its terms against it; and

d. There is no litigation pending or, to the best of such Party's knowledge, threatened to which it or any of its affiliates is a party that presently affects or which would have a material adverse effect on the financial condition or prospects or business of such Party in the fulfillment of its obligations under this Agreement.

7. Termination

This Agreement shall be effective from the date hereof and shall continue in full force and effect till the full and final satisfaction of all obligations under the Concession Agreement in accordance with the terms thereof, in case the Project is awarded to the Consortium. However, in case the Consortium is either not qualified for the Project or does not get selected for award of the Project as the Selected Bidder, the Agreement will stand terminated, in accordance with the mutual agreement of the Parties.

8. Miscellaneous

This Joint Bidding Agreement shall be governed by laws of India.

The Parties acknowledge and accept that this Agreement shall not be amended by the Parties without the prior written consent of the NMSCDCL.

IN WITNESS WHEREOF THE PARTIES ABOVE NAMED HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

SIGNED, SEALED AND DELIVERED For and on behalf of

LEAD CONSORTIUM MEMBER by:

(Signature) (Name) (Designation) (Address)

SIGNED, SEALED AND DELIVERED

For and on behalf of

SECOND PART

(Signature) (Name) (Designation)

(Address)

In the presence of:

1.

2.

Notes:

- The mode of execution of the Joint Bidding Agreement should be in accordance with the
 procedure, if any, laid down by the applicable law and the charter documents of the
 executant(s) and when it is so required, the same should be under common seal affixed
 in accordance with the required procedure.
- 2. Each Joint Bidding Agreement should attach a copy of the extract of the charter documents and documents such as resolution/power of attorney in favor of the person executing this Agreement for the delegation of power and NMSCDCL to execute this Agreement on behalf of the Consortium Member.

3. For a Joint Bidding Agreement executed and issued overseas, the document shall be legalized by the Indian Embassy and notarized in the jurisdiction where the Power of Attorney has been executed

8.2. Annexure II: Compliance Forms

Sr. No.	CCMS Validation for 3-phase and single phase	Avail	able
INO.		Yes	No
1	Access to monitoring and control screen developed for the live demonstration (User ID and Password).		
2	Dashboard: Monitoring and central controlling screen shall have following screens/icons		
	a. Display live status of the switching pointsb. Live readings of energy consumption details (meter packets) with current time stamps.		
	c. Configure or reset the timings etc.		
	d. Page/screen with GIS mapping		
	e. Page/screen with power failure information		
	f. Page/screen with lamp failure details		
	g. Page/screen for reports		
3	Operation Features		
	a. GPRS /GSM		
4	Timer Operation — Refer Test Methodology		
	a. On/off operation of switching point		
	b. Time setting operation — Set the RTC		
	c. Scheduling the ON and OFF timings		
	d. Check the real time or present status of the switching point.		
	e. Reset the unit — Time		
	f. Auto Recovery after power failure		
5	Meter Operations		
	a. Meter readings are reflected in the server		
	b. Periodicity of Meter Packet should be configurable from server		
	c. Meter Parameters - KWH, KVAH, V, Ah, Power Factor, Active power and Apparent Power		
6	Reports Downloading		
	a. Energy saving report - yearly, monthly, weekly or daily basis		
	b. Error reports — No of lights off and Panel Door Opened with		
	Timing etc.		
	c. Power failure report etc.		
7	Time Sync/Auto synchronization in case of time skip		
	a. If the server time is 5:00 pm, we have set the time to 5:30 pm. However, the sync should revert back to 5:00 pm		
8	Fault Detections in terms of failures for the followings with inclusive SMS alerts		
	a. Number of lights in glowing and non- glowing		
	b. High/low voltage		
	c. Overload on the phases		
	AIMACODOL	1	

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Sr.	CCMS Validation for 3-phase and single phase	Avail	able
No.		Yes	No
	d. Theft alerts		
	e. Group failure of lights		
	f. No output supply		
	g. Power Failure		
9	CCMS System Battery		
	a. Battery performance in case of Power Failure		
	b. Batter backup or UPS backup of 12 hrs. (Minimum)		
	CCMS System Hardware:		
	a. System box with Corrosion-resistant metal enclosure with proper lock arrangement		
	b. Energy Meter with ISI (Class 1.0accuracy or better energy meter)		
	c. Proper Earthing System		
	d. IP 55 or 65 for complete CCMS system		
	e. Single Phase system - 5kVA		
	f. Three Phase system — 10kVA		
	g. Emergency on/off switch		

Sr. No.	Specification	Compliance (Yes/No)
1	Ability to control individual lights based on commands and policies	
2	The smart light should be using technologies like 0-10V or DALI or any variant of these for providing controlling of LEDs	
3	It is preferred that the smart light control nodes use industry standard RF technologies like Wi-Fi, 802.15.4, Zig Bee, Lora or GPRS as connectivity options	
4	The system should support reading, monitoring of various electrical parameters like Voltage, Current, Power Consumption etc. at each light.	
5	The system should have the ability to detect faults in individual lights and sent alerts and notifications to the management system	
6	The system should have ability to control the ON/OFF operation of the Luminaire centrally.	
7	The smart street lighting system should be able to operate at any weather Conditions	
8	The smart street lighting system should preferably be communicating using WIFI technology. Other allowed	

Sr. No.	Specification	Compliance (Yes/No)
	technologies can be Zig Bee, Lora and IEEE 802.15.4/Ethernet/Wi-Fi/Fiber/GPRS/RF or equivalent networks.	
9	The smart street lighting system should be able to communicate to the CCMS hosted on the cloud (Preferably)	
10	The smart street lighting system should have the capability to receive the instruction from the Lighting Operations Management software and act accordingly	
11	The smart street lighting system should be able to operate the lights switch on/off, increase/decrease luminosity (Dimming) as per the command received from the Lighting Operations Management software	
12	The Lighting Operations Management software should have the capability to apply policies to the smart lighting system. Example: set up policies like light up alternate lights during low traffic density, increase the luminosity of the lights as per the dullness of the day lights	
13	The city administration should be able to see the real time status of the Smart Lighting System on a city map view of the Lighting Operations Management software	
14	The city administration should be able to operate the Smart Lighting System manually too.	
15	The smart lighting system should be able to communicate the system issue or failure to the Lighting Operations Management software.	
16	The smart lighting system are preferably a combination of LED lights and sensors	
17	The individual lights are to be monitored by electronic controller using a long range radio frequency communication technology	
18	The controller should be able to operate autonomously as per the defined schedules and light level sensors	
19	Should enable Over the Air (OTA) firmware update	
20	The sensors on the smart street lighting system should be able for remote operating capabilities.	

Sr. No.	Specification	Compliance (Yes/No)
21	The rule engine set up on the Lighting Operations Management software should run on the real time data and apply the policies automatically	
22	At any time, these policies can be overridden by human intervention with the system	
23	At any point in time, the map view should give the details of the status, luminosity of the lights in city map view	
24	The data transmitted by and received from the sensors should be encrypted and tamper proof end to end (from sensor to application)	
25	The sensor firmware should be upgradable from the central location.	
26	The system should allow to automatically or manually assign a GPS location to each sensor for placing on a GIS map.	
27	THE Lighting Operations Management software should be able to send commands to the smart street lighting system based on the data analytics to increase/decrease the luminosity as per the Day light and weather conditions.	

8.3. Annexure III: Financial Proposal Template

To, Chief Executive Officer Nashik Municipal Smart City Development Corporation Limited (NMSCDCL) Rajiv Gandhi Bhavan, Nashik Municipal Corporation, Nashik-422001
Ref: RFP No dated for selection of Concessionaire for implementing Smart LED Street Lights for ABD area under Nashik Smart City, Nashik on Design, Build, Finance, Operate and Transfer (DBFOT) Basis ("RFP").
Subject: Financial Proposal
We agree with all technical and commercial terms and conditions specified in the RFP. We have understood the scope of work as detailed in the RFP. We further agree to execute the entire Project on energy saving sharing basis achieved from Energy Efficient Dimmable LED Street Lights and its maintenance for 7.5 years.
We agree on the following percentage sharing of total savings through dimmable LED Street Lights to the NMC.
1)
Note: No negative % allowed
I/ We hereby submit our Financial Model in a soft copy, i.e. in MS Excel in support of our Bid.
In witness thereof, I/we submit this Bid under and in accordance with the terms of the RFP Document.
Thanking you, We remain, Yours sincerely,
Authorized Signature:
Name and Title of Signatory:
Name of Firm:
Address: CEO, NMSCDCL Document No.: MAH-NAS-060-RFP-01 Page 101 of 134

8.4. Annexure IV: Draft Agreement

This energy savings performance contract (hereinafter called the Concession
Agreement) is made on the day of, 20 atby and
amongst:
 Nashik Municipal Smart City Development Corporation Limited, registered under the Companies Act of 2013, having registered office at having its headquarters at and its legal through its, hereinafter referred to as NMSCDCL;
And
1. Nashik Municipal Corporation, having its headquarters at through its, hereinafter referred to as NMC;
INIVIC,
And
1, a company registered under Companies act 1956/2013, having its registered office at, herein after referred to as the Concessionaire
NMSCDCL, NMC and the Concessionaire are hereinafter referred to individually as a Party and collectively as the Parties.

WHEREAS:

- a. Nashik Municipal Corporation (NMC) operates the street lighting infrastructure in the city of Nashik and wishes to enter into a Concession Agreement with the Concessionaire. The Concessionaire will undertake the work of replacement of existing street lights in the ABD area of approx. 600 acres in Nashik City, with energy efficient LED street lights, installation of control systems along with operation & maintenance for a Concession Agreement period of 7.5 years (the Project) including installation period of 6 months (extendable by 3 months with prescribed penalty clause) and remaining for O&M and energy savings payment from the Effective Date.
- b. The Project area comprises of total of 3500 luminaires in place being operated by 73 switching points/ feeder panels.
- c. The Concessionaire submitted a bid in response to the request for proposal issued by NMSCDCL. The financial bid parameter estimated, based on the values quoted by Concessionaire for revenue sharing. The concessionaire has also given Live Demonstration of LED lamps & proposed CCMS system which has met the technical specifications provided at Annexure V
- d. NMSCDCL and NMC has invited the Concessionaire to enter into this Concession Agreement.
- e. The following documents shall be deemed to form and be read and construed as part of this Concession Agreement.
 - a. Conditions of Contract
 - b. Scope of Services
 - c. Technical Specifications of the Project

- d. Baseline energy consumption
- e. Format for weekly reporting of fixture replacement
- f. Service Level Agreement
- g. Letter of Award and
- h. Results of Live Demonstration

IN WITNESS WHEREOF, the Parties, intended concession Agreement to be executed authorized representatives on day of	on INR stamp paper by their duly
For and on behalf of the Nashik Municipal Smart City Development Corporation Limited	
Name: Designation:	
In the presence of	
Witness	
Sign:	
Name:	
Address:	
For and on behalf of the Nashik Municipal	
Corporation	
Name:	
Designation:	
In the presence of	
Witness	
Sign:	
Name:	
Address:	
For and on behalf of the Concessionaire	
Name:	
Designation:	
In the presence of	
Witness	
Sign:	
Name:	
Address:	

NOW THEREFORE, the Parties agree as follows:

1. Definitions and interpretations

In this Concession Agreement (including the recitals and schedules), the following words and expressions have the following meanings:

Authority - Combined office of both the Authority 1 and Authority 2.

Authority-1 – The Chief Executive Officer (CEO), acting on behalf of Nashik Municipal Smart City Development Corporation Limited (NMSCDCL), who conducted the bidding process till the selection of successful Concessionaire.

Authority 2- Municipal Commissioner, acting on behalf of Nashik Municipal Corporation (NMC)

Commissioning Certificate will be issued by NMSCDCL & NMC against the installation, verification and testing of all the proposed street light technologies and infrastructure along with CCMS panels.

Consent - means any permit, approval, authorization, agreement, no objection certificate, waiver or license which is required to be obtained by the Concessionaire in order to perform the Services.

Concession Agreement – this energy saving performance contract entered into between NMSCDCL & NMC and the Concessionaire on the date hereof, including the recitals and schedules, as may be amended from time to time by the Parties.

Concession Agreement Year – successive periods of twelve (12) calendar months commencing from the date of signing of this agreement.

Concession Agreement Officer – An officer who has been dully authorized on behalf of NMSCDCL & NMC

Concessionaire –The Selected Bidder who is responsible for designing, engineering, financing, procurement, construction, operation and maintenance of the Project.

Concessionaire Representative - the person appointed by the Concessionaire to represent the Concessionaire and communicate with **Nodal Officer**.

Corrupt Act – the act of promising, giving, receiving, or agreeing to receive money or some other item of value with a corrupt aim, or perceived aim, of influencing a public official in the discharge of his official duties; and acts giving rise to criminal liability under Indian Laws

Day- Day means a calendar day

Delay Liquidated Damages - means an amount per week of delay calculated in accordance with Section VII of the RFP in the event the Services are not completed in accordance with the Timeline.

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Effective Date – the date on which this Concession Agreement and all of its schedules are signed by the duly empowered representatives of all the Parties.

Energy Conservation Measures (ECMs) – the installation of new equipment, modification or alteration of the Existing Lighting Infrastructure by the Concessionaire at the Concessionaire's cost, in the city of Nashik, or revised operation and maintenance procedures to reduce energy and maintenance costs by improving efficiency of use.

Energy Savings - Energy savings is a reduction of energy consumption or electrical demand resulting from the Concessionaire's ECMs taking into considerations quality of power supply.

Engineer In charge – Nominated authorized person of NMSCDCL.

Existing Lighting Infrastructure - all NMSCDCL owned street lighting equipment and apparatuses, including, but not limited to, poles, cables, wires, lighting fixtures, fittings, ballasts, lamps, tubes, switching devices and timers within the Project Area.

Force Majeure Event - has the meaning given in clause 29 of this agreement.

Laws – all current or future applicable Indian laws, administrative regulations, local regulations, regulations on the exercise of autonomy, special regulations, rules, judicial interpretations and other regulatory documents with legal binding force or any compulsory requirement.

Lender – any agency/ person providing financing to the Concessionaire in relation to this Project.

Nodal Officer: Authorized representative representing the Office of Authority.

Operation and Maintenance (O&M) – all the activities required for operation and maintenance of the street lighting fixtures handed over to the Concessionaire within the Project Area including, but not limited to, those required for meeting the lighting standards specified in this Concession Agreement.

Project – has the described given in the Recitals.

Project Area – has the described given in the Recitals.

Services – the services to be performed by the Concessionaire pursuant to this Concession Agreement and described in Section IV of the RFP.

Term – the period starting on the Commencement Date and ending on the eighth (8th) anniversary of the Commencement Date, as may be extended in accordance with section 4 of RFP, or on the Termination Date, whichever is earlier.

Termination Date – any date of early termination of this Concession Agreement pursuant.

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Year- means the financial year beginning on the 1st day of April and ending on the 31st day of following March.

2. Interpretations

In this Concession Agreement, unless the context otherwise requires,

- a) the words "include" and "including" are to be construed without limitation;
- b) Energy Efficiency and EE will be used interchangeably in the document hereafter.
- any reference to day, month or year shall mean a reference to a calendar day,
 calendar month or calendar year respectively;
- d) the Schedules to this Concession Agreement form an integral part of this Concession Agreement as though they were expressly set out in the body of this Concession Agreement;
- e) any reference at any time to any agreement, deed, instrument, license or document of any description shall be construed as reference to that agreement, deed, instrument, license or other document as executed, amended, varied, supplemented, modified or suspended at the time of such reference;
- f) any agreement, consent, approval, authorization, notice, communication, information or report required under or pursuant to this Concession Agreement from or by any Party shall be valid and effectual only if it is in writing under the hands of duly authorized representative of such Party in this behalf and not otherwise;
- g) any reference to any period commencing "from" a specified day or date and "till" or "until" a specified day or date shall include both such days or dates;
- h) "person" shall be construed as a reference to any person, firm, company, corporation, society, trust, government, state or agency of a state or any association or partnership (whether or not having separate legal personality) of two or more of the above and a person shall be construed as including a reference to its successors, permitted transferees and permitted assigns in accordance with their respective interests;
- i) The documents forming part of this Concession Agreement are to be taken as mutually explanatory to one another and, unless otherwise expressly provided

elsewhere in this Concession Agreement, the priority of the following documents shall, in the event of any conflict between them, be in the order set out hereunder:

- this Concession Agreement
- all other documents forming part of this Concession Agreement
- j) The tables of contents and any headings or sub-headings in this Concession Agreement have been inserted for ease of reference only and shall not affect the interpretation of this Concession Agreement.

3. Concession Agreement Documents

This Concession Agreement is the entire agreement between the Parties, and no alterations, changes or additions thereto shall be made, except in writing approved by the Parties.

4. Term and commencement

4.1. Effective Date and Term

This Concession Agreement comes into effect on the Effective Date and expires on the eight (8th) anniversary of the Effective Date (the "Term"), unless terminated earlier pursuant to this agreement or extended.

4.2. Conditions Precedent

The Parties shall ensure that the following conditions are met as soon as possible following the Effective Date:

- b. NMC shall, in agreement with the Concessionaire, open an ESCROW account in a nationalized/scheduled commercial bank and shall deposit an amount equal to three (3) month of electricity savings and 3(three) months of O&M Fee as per year-wise amount quoted in this Bid, within 1 month of the signing of Energy Savings and Performance Contract (ESPC) or otherwise the Concessionaire will be provided a revolving bank guarantee by NMC for the amount equal to 3 month amount for energy saving and O&M share of Concessionaire.
- c. NMC shall provide the Concessionaire with an authorization letter granting the Concessionaire the access to the Existing Lighting Facilities/infrastructure.

4.3. Extension of Term

NMSCDCL on receiving request from the Concessionaire may at its discretion, permit extension of time for execution of the Concession Agreement. The Concession Agreement Period would be 7.5(seven and a half) years including installation period of 6 months (extendable by 3 months with prescribed penalty) and remaining for O&M and energy savings payment. The end date of Concession Agreement period would be exactly 7.5 years irrespective of installation period whether it is less than or more than 9(nine) months. After the end date of Concession Agreement, the Concessionaire will not be eligible for any payment except the pending payment of contract duration.

5. Services

5.1. Scope of Services

Without prejudice to any other provision of this Concession Agreement, the Concessionaire shall carry out the Services set out in Section 4 of RFP within the Project Area and undertake the other obligations to be performed by the Concessionaire as further described in this Concession Agreement from the Commencement Date and until the end of the Term.

5.2. Extension of the Scope of Services

In view the continuous development of the city, the Concessionaire may be asked to install additional street lights and CCMS panels and connect the same to overall CCMS system. In case of such additions after commissioning of the project, NMC will reimburse the Concessionaire at a standard rate of INR 100/watt throughout the concession period. No payment towards energy savings would be made by NMC to the Concessionaire for all such additional street lights.

Also, in such cases, the Concessionaire has to carry out the O&M of these additional luminaires and CCMS panels.

Undertakings

The Concessionaire undertakes the following:

- a) The provision of the Services shall not contravene any Law of the Country and shall comply with all Laws;
- b) The Concessionaire shall perform and complete the Services in a professional, timely, safe and environmentally responsible manner and comply with the safety, health and security regulations in force in India and the State of Maharashtra;
- c) The Concessionaire shall use appropriate, advanced and proven technology, software and information systems; and

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d) The Concessionaire shall carry out its obligations under this Concession Agreement in a manner which is consistent with Indian standards, international best practices, methods, techniques, skills, diligence and prudence which are generally expected from a Concessionaire with similar obligations.

6. NMC's Responsibilities

6.1. Access

NMC shall be responsible for providing the Concessionaire with, free of charge, on and from the Effective Date, access to all the information and data with regards to, the Existing Lighting Infrastructure and all land in the Project Area whose access is required for the performance of Services and in respect of which NMC has control. Access to the Existing Lighting Infrastructure and the land within the Project Area shall confer on the Concessionaire a right to only use the Existing Lighting Infrastructure and the land necessary to enable the Concessionaire to carry out the Services.

The Concessionaire will be provided with a small place in each zone with basic infrastructure where the Concessionaire will make available a person with amenities like computer, printer, phone, complaint register, etc. during working shift timings to register complaints regarding street lighting. These complaint handling centers will be connected to NMC's existing Complaint Management System and such centers should become fully operational within 30 days of allocation of such space by Authority.

If NMC removes any particular pole or fixture after commissioning, the Concessionaire shall be entitled for the Energy Savings Fee that would have arisen out of the energy savings pertaining for such fixture for the remaining life of the Project. If access to any particular pole or fixture is not provided by NMC to the Concessionaire during O&M phase; the Concessionaire shall be entitled to the Energy Savings Fee for the fixtures that would have arisen out of the energy savings pertaining to such fixtures for the amount of time when access was not provided.

6.2. Assistance to Concessionaire

If requested by the Concessionaire, NMSCDCL shall facilitate the Concessionaire in a timely and expeditious manner with the following:

a. Obtaining all the consents necessary for the Services (excluding the qualifications that the Concessionaire should already possess) such as CEO, NMSCDCL Concessionaire

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- construction permits, permits for temporary suspension of water, power or traffic, etc.
- b. Protecting underground pipelines, buildings and structures (including historic relics) and trees located on or close to the Project Area
- c. Consulting with the Concessionaire if any construction or installation project implemented by NMC/NMSCDCL or other local public entity in the city of Nashik may have direct or indirect impact on the Concessionaire
- d. Obtaining MSEDCL's full cooperation during the Term of the Concession Agreement.

However, the Concessionaire has to arrange all the machineries and equipment required for the implementation of the project at its own expense. Also the Concessionaire shall procure at his sole expenses all permits and licenses and pay all charges and fees for lawful execution of the work.

6.3 Lux level measurements

At random during project operation, NMSCDCL official shall ask Concessionaire to demonstrate the lux level of operating LED fixture to check compliance with the data recorded during live demonstration. Under such case, Concessionaire will have to install the LED fixture at the site of live demonstration and verify the lux level. If, during such test it is found that lux level has fallen below the minimum required average lux level and uniformity ratio, Concessionaire at its own cost will have to replace all the LED fixtures with similar wattage as per the direction of Engineer In charge. Also, the average lux level and uniformity ratio measured, for the existing street light fixture, during the live demonstration will be binding throughout the project term.

6.4 Operation and maintenance

NMC shall be responsible for the O&M of all the identified switching points and street lighting fixtures until the same are handed over to the Concessionaire.

The Concessionaire's Responsibilities

7.1. Energy Baseline Determination

NMSCDCL has provided a snapshot of energy consumption baseline conditions of street lighting under its jurisdiction in clause 4.8 of the RFP. The annual energy baseline has been estimated at 1980619 Kwhrs. assuming 100% of the street lights are in operation and the average operating hours of the street lights is 11 hours/ day.

The baseline defined in the RFP is for existing condition of street lighting system in Nashik. However, actual baseline during the installation period (i.e. from the start of project to complete installation) may vary by \pm 15% in terms of number of light points as well as electricity consumption. The Concessionaire may be asked by NMSCDCL to install/ uninstall light points during the time of implementation and subsequently, the baseline will be modified on the completion of installation of LED lights. This modified baseline will be considered for assessment of energy savings throughout the concession period for verifying the actual saving.

The Concessionaire, immediately from the Commencement Date, shall undertake field survey of street lighting systems to identify the fixtures for replacement. The Concessionaire has to perform this task in parallel to other activities and no additional time will be provided for this activity.

7.2. Services

The Concessionaire shall execute the services to be provided in accordance with scope of work.

7.3. Timeline for implementation of the project

The Services to be performed by the Concessionaire has been classified into two tasks. The Concessionaire has to adhere to the stipulated timelines as mentioned hereunder:

Task 1: Replacement of existing luminaires (within municipal boundary of Nashik Municipal Corporation) with LED luminaires (including LED lamp, driver and Luminaire) and installation of (CCMS) – This activity shall be completed within 6(six) months from the date of signing of this Concession Agreement.

Task 2: Undertake comprehensive operation and maintenance of street lighting network – This activity shall commence from the date of issue of satisfactory Installation, Testing and Commissioning certificate of all LED Street lights from Engineer-in-charge (i.e. only after complete installation in any particular zone) and shall continue for 7(seven) consecutive years from the effective date of signing of this agreement.

7.4. Extension of Implementation Timeline

Notwithstanding, if the Concessionaire does not have access to part or the whole of the Existing Lighting Infrastructure for any reason, including, but not limited, to a Force Majeure Event for any period of time during the Term, then the Concessionaire shall be excused from the performance or punctual performance of its obligations under this Concession Agreement for such period of time when the Concessionaire does not have access to all the Existing Lighting Infrastructure in the Project Area. Also, the timeline shall be extended for an equal period of time during which the Concessionaire didn't have access to all the Existing Lighting Infrastructure.

8. Asset Ownership

8.1. Existing lighting fixtures

NMC shall at all times during the Concession Agreement period remain the owner of the land and the existing lighting infrastructure under its jurisdiction.

The Concessionaire will not be held liable for lighting infrastructure existing prior to the date of commissioning of LED luminaires and CCMS panels or arising from any event or circumstance that occurred prior to the date of commissioning.

The Concessionaire shall ensure the proper recording of the dismantled conventional fixtures, as per format attached at Annexure IV, to office of Authority at least on weekly basis.

8.2. Newly installed equipment and systems

The Concessionaire shall remain the owner of the LED luminaires and CCMS panels installed by it during the term. The Concessionaire shall undertake all the procurement of equipment and services necessary for the Project. This LED luminaires and CCMS panels installed by Authority under this contract shall be free of any lien and should have paid all applicable taxes. At the end of the Term, the Concessionaire shall submit to Authority a list of all the equipment, fittings or other items that were replaced during the Terms.

The essence of this Concession Agreement is to keep all the street lights 'ON' and as such any nonfunctioning of street light fixtures/feeder panels/poles will be adversely reflected on the performance of the Concessionaire. Hence it will be in the interest of the Concessionaire to identify & attend to the faults & keep the lights 'ON' in a safe manner. The Concessionaire should employ only qualified and experienced personnel & use proper instruments, take adequate precautions, use good quality material, have proper supervision and maintain proper complaint management and public relations.

The Concessionaire should monitor the electrical load on each phase and each circuit in the panel & also maintain load balance equally on all the phases. He should never allow any circuit to be overloaded.

The material used for the work shall be new & of best quality available and work should be carried out with best workmanship. The material used and works carried out shall conform to the relevant Electricity Act 2003 as amended and rules of Bureau of Indian standards.

At the expiry of the Term/termination of the concession agreement, all rights and titles to, and interests in, all improvements and equipment constructed or systems installed shall be vested in NMC, free and clear of all and any liens and encumbrances created or caused by the Concessionaire. The Concessionaire shall surrender possession of the LED luminaires and CCMS panels, along with CCMS bill of material, to NMC with at least 98% of them in working condition.

10. Termination

10.1. Termination events

This Concession Agreement shall terminate:

- a) due to a Force Majeure Event;
- b) due to a NMC/ Event of Default and
- c) due to a Concessionaire Event of Default:

11. NMC Event of Default

The following events, provided that they are not caused by a Concessionaire Event of Default or a Force Majeure Event and are not cured within sixty (60) days following the issuance of a notice from the Concessionaire, shall constitute a "NMC Event of Default" and the Concessionaire shall be entitled to terminate this Concession Agreement:

- a) NMC fails to deposit monthly electricity bill or any other payment in the Escrow Account, for more than 3 months from its collection;
- b) NMC is in material breach of its obligations under this Concession Agreement, including but not limited to payment default or access default.
- c) NMC has unreasonably withheld or delayed grant of any approval or permission which the Concessionaire is obliged to seek under this Agreement, and thereby caused or likely to cause Material Adverse Effect.

12. Concessionaire Event of Default

The following events, provided that they are not caused by a NMC/NMSCDCL or Authority Event of Default or a Force Majeure Event and are not cured within sixty (60) days or within specified timelines, following the issuance of a notice from

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NMC/NMSCDCL, shall constitute a "Concessionaire Event of Default" and Authority shall be entitled to terminate this Concession Agreement:

- a) The Concessionaire made any representation or warranty that was incorrect when made in the bid or during the Concession Period;
- b) Liquidation or insolvency of the Concessionaire;
- c) Transferring the Services in violation of this Concession Agreement;
- d) The Concessionaire has been convicted of a fraud and corrupt practices;
- e) The Concessionaire is in material breach of any of its obligations under this Concession Agreement;
- f) NMC/NMSCDCL or Authority determines that the Concessionaire has, directly or indirectly, engaged in corrupt practices, fraudulent practices, coercive practices, undesirable practices or restrictive practices during the bidding process for this Project; and
- g) The Concessionaire's failure to pay the Delay Liquidated Damages as per Section VII of the RFP.

Notwithstanding the above provisions, failure by the Concessionaire to issue monthly reports, daily reports and annual electrical safety energy audit report of this Concessionaire agreement shall automatically constitute a Concessionaire Event of Default without having to wait for the end of the sixty (60) days cure period.

13. Termination Procedure

13.1 Termination of this Concession Agreement by Authority

Authority may terminate this Concession Agreement by giving a termination notice to the Concessionaire if a Concessionaire Event of Default has occurred and continued for more than sixty (60) days or within specified timelines after Authority notified the Concessionaire of such Concessionaire Event of Default.

13.2 Termination of this Concession Agreement by Concessionaire

The Concessionaire may terminate this Concession Agreement by giving a termination notice to Authority if a NMC/ Authority Event of Default has occurred and continued for more than sixty (60) days after Authority has received a notice from the Concessionaire mentioning the Authority Event of Default and requesting Authority to remedy such Authority Event of Default.

14. Termination Payments

In case of termination arising on account of a Force Majeure Event, NMC shall pay the Concessionaire one hundred percent (100%) of the Book Value for all the equipment constructed or systems installed up to the Termination Date, as duly certified by a reputed auditor appointed with consent of both the Parties.

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If transfer of Assets happens before the expiry of term due to either a NMC/ Event of Default or a Concessionaire Event of Default, then the NMC shall pay the Concessionaire for all the equipment constructed or systems installed up to the termination date and approved by Authority considering the transfer value of the Assets together with the termination and transfer assistance fee.

All rights, titles and interests in and to all improvements and equipment constructed or systems installed shall vest in NMC after payments made to the Concessionaire and free and clear of all and any liens and encumbrances created or caused by the Concessionaire. The Concessionaire shall surrender possession of the said equipment and systems to NMC with at least 98% of them in working condition.

15. Transfer

In case of delay in project owing to reasons not under the control of concessionaire, six (6) months before the end of the Term, the Parties shall discuss whether this Concession Agreement shall be renewed or not. If the Parties decide not to renew the Concession Agreement, then all the Existing Lighting Infrastructure as may have been upgraded and maintained by the Concessionaire shall be transferred to NMC free of charge on the day immediately following the end of the Term.

During the Exit Management Period, the Concessionaire will transfer all the assets in normal working condition and as per the specifications of the clause 34 of this Concession agreement including the ones being upgraded.

The Concessionaire, if not already done, shall transfer all the right to use software licenses under the name of NMC during the Exit Management Period. The Concessionaire shall also transfer all the relevant Software Passwords, User Names and Keys. If such a transfer of Assets happens before the expiry of term, Parties shall mutually discuss and agree on the transfer value of the Assets together with the termination and transfer assistance fee.

The Concessionaire shall be entitled to use the Assets for the duration of the exit management period which shall be three months from the date of expiry or notice of termination of the Agreement.

For any material breach on the part of Concessionaire during the Project Implementation Phase and Operation & Management Phase, NMC is entitled to provide notice in writing on the Concessionaire at any time during the exit management period as detailed here in above requiring the selected Concessionaire to provide the department or its nominated agencies with a complete and up to date list of the Assets within 30 days of such notice.

16. Employees and training

NMC shall remain the principal employer of the Nashik Municipal Corporation employees working for the street lighting department. Such employees may or may not, at the Concessionaire's sole discretion, be seconded to the Concessionaire for a specific duration and under terms and conditions to be agreed upon between the Parties. The Concessionaire has no obligation to employ directly or indirectly any municipal employees.

The Concessionaire will organize half-day training program at NMSCDCL office wherein the Concessionaire will train the employees of NMC on any day within one month of the date of commissioning and on any day within last quarter of end of Concession Agreement period on the operation, maintenance and repair of the equipment and systems installed by the Concessionaire

The Concessionaire's personnel, representatives or other members of the Consortium shall be under the complete control of the Concessionaire and shall not be deemed to be employees of NMC in any case.

17. Delay liquidated damages

Where the Concessionaire fails to complete the Services within the Timeline provided under this agreement, Authority shall be entitled to apply Delay Liquidated Damages as follows:

In the event the Concessionaire fails to finalize the activities and deliverables of Task-1 within the stipulated time of 9 months, the Concessionaire shall be liable to pay Authority Delay Liquidated Damages of an amount equal to Indian Rupees One Lakhs (Rs. 100,000) for each week of delay, subject to a maximum delay of 13 weeks after which M&V of energy savings will be stopped resulting in no payments towards energy saving.

18. Limitation of Liability

Neither NMC/NMSCDCL nor the Concessionaire shall be liable to the other under this Concession Agreement for any loss of profit, loss of revenue or any other indirect or consequential damages that may be suffered by the other Party. unless otherwise specified in this Concession Agreement.

Unless this Concession Agreement provides otherwise, no approval, expression of satisfaction, comment, review, payment or certificate whatsoever made or given (or any failure to make or give the same) by NMC/Authority its employees under this Concession Agreement, shall relieve the Concessionaire of any of its obligations, risks or liabilities under this Concession Agreement.

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19. Third party claims

19.1 Indemnification

The Concessionaire shall indemnify and hold NMC and Authority and its employees or any other Concessionaire harmless from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs and expenses of whatsoever nature, including attorney's fees and expenses, that arise in connection with the execution of the Services due to the negligence or willful misconduct of the Concessionaire, any Sub Concessionaire or their employees, in respect of the following, except to the extent that the following is caused by the negligence of NMC and Authority

- a) the death or injury of any person;
- b) loss or damage to any property, real or personal; and
- c) Third party losses and claims.

19.2. Handling of Claims

If any proceedings are brought or any claim is made against NMC or Authority in relation to the performance of the Services by the Concessionaire, or any of its employees, NMC or Authority shall promptly notify the Concessionaire and set out full particulars of the claim. The Concessionaire shall conduct such proceedings or claims and any negotiations for the settlement of any such proceedings or claims at its own expense and on behalf of NMC or Authority and with Authority's assistance.

20. Settlement of disputes

20.1 Consultation

Both Parties must agree that in the event any dispute, controversy or claim arising between the Parties out of, under or in connection with this Concession Agreement, or in the interpretation of any of its provisions, including any question regarding its existence, validity or termination, the Parties shall meet promptly on the request of either Party in an effort to resolve such dispute, controversy or claim through consultation in an amicable manner. If a settlement is not reached then the matter shall be referred to NMSCDCL, Nashik for seeking their advice. Pursuant to this clause within thirty (30) days of the said request, the Parties shall refer their dispute to Arbitration.

20.2 Arbitration

In case the dispute is not resolved amicably, the matter shall be settled by the arbitrator under the Arbitration and Conciliation Act, 1996 with any amendments thereto and its decision would be final and binding on both the parties. The place of arbitration shall be Nashik, Maharashtra.

21. Taxes and duties

The quoted rates online in the Price Bid shall be inclusive of all taxes, duties, etc. except GST (as applicable) and no claim in this context shall be entertained. Concessionaires shall not be paid any extra amount due to increase in any type of Government Taxes including excise duty during implementation of Concession Agreement. Any variations in taxes shall be borne by the Concessionaire. The provisions of this Article shall survive the termination or expiry of this Concession Agreement.

22. Confidentiality

The Parties shall treat as confidential the existence and contents of this Concession Agreement (including its Schedules), all the information and documents obtained in relation to this Concession Agreement, the Services, as well as all other aspects of the Project contemplated under this Concession Agreement. The duration of the confidentiality obligation shall last for two (2) years following the end of the Term.

The above clause shall not apply in following cases:

- a) Information already published or otherwise publicly available;
- b) Information already obtained by one Party in a manner which does not breach a confidentiality obligation;
- c) Information obtained from a third party in a manner which does not breach a confidentiality obligation;
- d) Information required to be disclosed in accordance with Indian Laws; and
- e) Information disclosed for the purpose of the performance by either Party of its obligations under this Concession Agreement.

23. Notice

23.1 Notice

Any notice under this Concession Agreement shall be in writing and in English, and
shall be delivered in person or sent by registered post, fax or email to the following
addresses: For Authority
For Concessionaire

23.2 Change of Information

Should either Party need to change its contact information, it shall inform the other Party in writing fifteen (15) days in advance. The change takes effect immediately upon receipt of such notice by the other Party.

24. Insurance

The Concessionaire shall at all times, as may be applicable, obtain, maintain and renew those insurance covers required in relation to people, equipment, systems as well as **CEO, NMSCDCL** Concessionaire

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third party damages in accordance with applicable Government Acts and Regulation. In particular, the Concessionaire shall maintain an insurance coverage against the risk of damage by fire or otherwise of Concessionaire-owned and installed equipment and systems until the title to the equipment and systems passes on to NMC upon expiry of the Term.

The Goods supplied under the Concession Agreement shall be fully insured in Indian Rupees against loss or damage incidental to manufacture or acquisition, transportation, storage, delivery, completion of installation and commissioning. For delivery of goods at site, the insurance shall be obtained by the Successful Concessionaire, for an amount not less than the Price of the goods from "warehouse to warehouse" (final destinations) on "All Risks" basis including War risks and strikes.

25. Representations and warranties

25.1 The Concessionaire's Representations and Warranties

The Concessionaire represents and warrants to NMC that:

- a) The Concessionaire is an independent company duly incorporated, validly existing and of good standing under Indian Laws;
- The Concessionaire is financially solvent, is able to pay its debts as they mature, and has sufficient capital and resources to complete its obligations under this Concession Agreement;
- c) The Concessionaire is not a party to any legal, administrative, arbitral, investigation or other proceedings or controversy, pending or (to the best of the Concessionaire's knowledge) threatened, that would adversely affect its ability to perform its rights and obligations under this Concession Agreement;
- d) Without NMC's or Authority's written permission, the Concessionaire shall not engage in any related activities in the city of Nashik that may impinge upon this Project, other than the Services;
- e) The execution and performance of this Concession Agreement will not result in a breach or violation of, or constitute a default under, any agreement to which the Concessionaire is a party; and
- f) The execution and performance of this Concession Agreement has been duly authorized, and this Concession Agreement has been duly executed by the signatories and constitutes a legal valid and binding obligation.

25.2 Authority's Representations and Warranties

Authority represents and warrants to the Concessionaire that:

- a) Authority has the power and authority to enter into and perform its obligations under this Concession Agreement;
- b) The execution of this Concession Agreement will not result in a breach or violation of or constitute a default under any agreement to which it is a party.

26. Representatives

26.1. Authority's representative

Authority may from time to time replace its Representative by notifying the Concessionaire (to be effective upon receipt by the Concessionaire).

The Authority Representative shall have full authority and power to represent and act for Authority at all times during the Term. All notices, instructions, orders, certificates, approvals and all other communications under this Concession Agreement shall be given by, and to, the Authority Representative unless Authority notifies the Concessionaire otherwise.

26.2 The Concessionaire's Representative

The Concessionaire Representative shall have full authority and power to represent and act on behalf of the Concessionaire at all times during the Term, including for sending or receiving notices, instructions, information and all other communication in relation to this Concession Agreement.

The Concessionaire shall not revoke the appointment of the Concessionaire Representative without notifying Authority of the new Concessionaire Representative.

27. Governing Law and Language

27.2 Governing Law

This Concession Agreement is governed by and construed in accordance with the Laws of India and the State of Maharashtra.

27.3 Language

This Concession Agreement is written in the English language. All communications and information provided should be in writing and in the English language only.

28. Force Majeure

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A "Force Majeure Event" shall mean any event or combination of events occurring inside or directly involving the city of Nashik that is beyond the reasonable control of Authority or the Concessionaire, as the case may be, occurring or subsisting after the Effective Date and which (or the effects of which) is unavoidable, notwithstanding the reasonable care of the Party affected, including, in the case of the Concessionaire, any Sub Concessionaire, and, in the case of the Concessionaire only, such event(s) could not have been foreseen by an experienced Concessionaire, or to the extent that the event(s) could have been foreseen by an experienced Concessionaire, such Concessionaire could not have reasonably mitigated against the effects of such events. Such Force Majeure Events include, but are not limited to:

- a) War (whether declared or undeclared), invasion, armed conflict or act of foreign enemy;
- b) Rebellion, sabotage, act of terrorism, revolution, insurrection, civil war or epidemic (excluding vandalism);
- c) Strikes, lock-outs, works to rule or go-slows that are widespread or nationwide, or that are of a political nature, unless they are solely related to Authority, the Concessionaire or any Sub Concessionaire; and
- d) Lightning, earthquake, flood, hurricane, typhoon, tornado or volcanic activity.

Such events cannot be caused or contributed to by an act or omission of the Party relying on it or persons for whom that Party is responsible.

If either Party is prevented, hindered or delayed from performing any of its obligations under this Concession Agreement by a Force Majeure Event, then it shall notify the other Party in writing of the occurrence of such event and the circumstances thereof within fourteen (14) days after the occurrence of such event.

The Party who has given such notice shall be excused from the performance or punctual performance of its obligations under this Concession Agreement for so long as the relevant Force Majeure Event continues and to the extent that such Party's performance is prevented, hindered or delayed.

The Party or Parties affected by the Force Majeure Event shall use reasonable efforts to mitigate the effects thereof upon its/their performance of this Concession Agreement and to fulfil its/their obligations under this Concession Agreement, but without prejudice to either Party's right to terminate this Concession Agreement.

No delay or non-performance by either Party caused by the occurrence of any Force Majeure Event shall:

a) constitute a breach under this Concession Agreement;

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- b) extend the Term; or
- c) Give rise to any claim for damages or additional cost or expenses occasioned

If the performance of the Services is substantially prevented, hindered or delayed for more than one hundred and twenty (120) consecutive days on account of one or more Force Majeure Events during the Term, either Party may terminate this Concession Agreement by giving a notice to the other. If this Concession Agreement is terminated pursuant to this clause, NMC shall pay to the Concessionaire the part of the Energy Savings Fee payable for the Energy Savings performed prior to the Termination Date and the part of the O&M Fee payable for the operation and maintenance services performed prior to the Termination Date. The Concessionaire shall not be entitled to any further compensation.

Notwithstanding this clause, Force Majeure Events shall not apply to any NMC's or Authority's obligation to make payments to the Concessionaire hereunder.

29. Material Adverse Government Action

A "Material Adverse Government Action" ("MAGA") shall mean any act or omission, after the Effective Date, by NMC or Authority or any other public entity, which has a Material Adverse Effect.

A MAGA shall include the following circumstances:

- a) Any imposition or change of Law that is directly targeted at the Project and/or projects similar to the Project and/or that is discriminatory against the Concessionaire.
- b) Any imposition or change of Law of an environmental or technical nature which would have the effect of making the Laws more stringent than the Law in force at the Effective Date
- c) Expropriation or compulsory acquisition, or seizure of the Existing Lighting Infrastructure by a public entity with respect to substantially the same subject matter
- d) Any material breach by Authority of its obligations, including, but not limited to, failure to supply electricity within the whole or part of the Project
- e) Any regulator's decision having the effect of decreasing the Concessionaire's remuneration under this Concession Agreement.

Within 30 days of notice to Authority of a MAGA, Authority shall procure the remedy of the MAGA in question. Should Authority fail to procure a remedy prior to the expiry of 30 day period, the Parties shall discuss the issue in an attempt to reach a mutually satisfactory solution that restores the Concessionaire to the position it would have been in had such MAGA not occurred (including compensation for costs and loss of profits).

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If the Parties fail to reach an agreement on a satisfactory solution, the Concessionaire shall have the right to terminate this Concession Agreement.

The Concessionaire shall not be excused for performing its obligations under this Concession Agreement upon the occurrence of a MAGA, unless the Material Adverse Effect caused the Concessionaire to fail to perform its obligations.

30. Performance Security

30.1. Performance Security

The Concessionaire shall deliver to NMC a duly executed performance bond in the form of bank guarantee in the format set out in Form 7 issued by a Nationalized/ scheduled commercial Bank having a branch at Nashik city, of an amount equal to 10% of the estimated cost ("Performance Bank Guarantee"), from the date of receipt of the order valid for a period of 08 years and 02 months of lodgment period. The Performance Bank Guarantee shall be returned to the Concessionaire immediately after the expiry of the Term.

Till such time the Concessionaire provides the Performance Security, the Bid Security shall remain in full force and effect.

In case the Concessionaire fails to submit Performance Security within the time stipulated, the Authority at its discretion may cancel the LOA placed on the Concessionaire without giving any notice. Authority shall invoke Performance Security in case the Concessionaire fails to discharge their Concession Agreement obligations during the period or Authority incurs any loss due to Concessionaire's negligence in carrying out the project implementation as per the agreed terms & conditions.

The Performance Bank Guarantee shall secure the proper and timely performance of the Concessionaire's obligations as from the Commencement Date until the end of the Term, including the payment of Delay Liquidated Damages pursuant to clause 15. In case the performance Bank Guarantee is partly encashed on account of Liquidated Damages, the Concessionaire shall provide a fresh Bank Guarantee for such encashed amount within 15 days of notice of encashment served by NMC to it so that the overall amount of Performance Bank Guarantee(s) shall remain for the original complete amount at all times.

All fees, taxes, costs and expenses associated with procuring, preparing, completing and stamping (if applicable) the Performance Bank Guarantee shall be the responsibility of and paid by the Concessionaire.

30.2 Notice

Authority shall, prior to making any demand under the Performance Bank Guarantee, send a written notice to the Concessionaire mentioning the existence of a Concessionaire Event of Default and providing a cure period of fifteen (15) days. If the Concessionaire does not remedy its Concessionaire Event of Default within these fifteen (15) days, then Authority shall be entitled to call part or full, as relevant, of the Performance Bank Guarantee.

30.3 Replacement

Where the Performance Bank Guarantee is subject, pursuant to its terms, to a fixed expiry date, the Concessionaire shall, not less than fifteen (15) days prior to such expiry date, amend or replace the Performance Bank Guarantee, as the case may be, with a duly executed amended or replacement guarantee. Any replacement Performance Security must be issued for at least one (1) year by any Scheduled Bank having a branch at Nashik city, and should be on identical terms as original Guarantee issued. If the Concessionaire fails to provide an amended or replacement Performance Bank Guarantee as required, Authority may issue a demand under the Performance Bank Guarantee for the full amount available and shall be entitled to hold such amount as security for the performance of the Concessionaire's obligations under this Concession Agreement until a replacement Performance Bank Guarantee is provided (whereupon such amounts shall be returned to the Concessionaire without any obligation to account for interest).

If the Concessionaire is unable to provide new Performance Bank Guarantee for a period of more than a month from its expiry date, the Authority has the right to terminate the Concession Agreement.

31. Reporting

During the Term, the Concessionaire shall provide monthly reports to Authority with a separate copy to NMC about the following matters:

- a) Energy saving report including CCMS data
- b) Operation and maintenance services;
- c) Load reduction
- d) Update on the assets;
- e) Any other relevant as said by NMC or Authority.

If the Concessionaire does not issue monthly reports within ten (10) days of the end of the relevant month for any three (3) consecutive months or there is major false information in more than three (3) reports during the Term of the Concession Agreement, this breach shall constitute a Concessionaire Event of Default.

32. Miscellaneous

32.1 Assignment

Neither NMC or Authority nor the Concessionaire shall without the expressed written consent of the other Party assign or charge to any third party this Concession Agreement or any part thereof, or any right, benefit, obligation or interest therein or thereunder.

32.2 Entire Agreement

This Concession Agreement constitutes the entire agreement between the Parties, and no alterations, changes or additions thereto shall be made, except in writing and approved by both Parties. This Concession Agreement supersedes all communication, negotiations and agreements (whether written or oral) between the Parties made prior to the Effective Date with respect to the Services.

32.3 Amendments

Any amendment, addition or variation to this Concession Agreement shall be valid and binding only if in writing and only if signed by the authorized representatives of both Parties.

32.4 Severability

Should any provisions in this Concession Agreement be invalid, illegal or unenforceable or be held invalid, illegal or unenforceable by any competent tribunal or court, the remaining provisions of this Concession Agreement shall remain valid and enforceable.

32.5 No Partnership

This Concession Agreement does not constitute a joint operation or partnership in the legal sense between the Parties. The Concessionaire is a service provider to Authority.

33. Exit Management

33.1 Purpose

- i. This clause sets out the provisions which shall apply on expiry or termination of the "Contract Agreement" on account of material breach by Concessionaire. In the case of termination of the Contract Agreement due to any illegal activity performed by the selected Concessionaire during/ as part of the activities related to the project, or due to material breach by the Concessionaire of Contract, Client shall have the right to, at its sole discretion, apply this clause.
- ii. The Parties shall ensure that their respective associated entities, in case of the Client or its nominated agencies and any nominated agencies in case of the

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selected Concessionaire, carry out their respective obligations set out in this Exit Management Clause.

33.2 Transfer of Assets

This clause is valid till the date of expiry or notice of termination of the Agreement after which the assets have to be transferred to Client.

- During this period, the Successful Concessionaire will transfer all the assets in normal working condition and as per the specifications of the bidding document including the ones being upgraded to the Client.
- The Concessionaire, if not already done, shall transfer all the right to use software licenses under the name of Client during the Exit Management Period. The Concessionaire shall also transfer all the relevant Software Passwords, User Names and Keys. If such a transfer of Assets happens before the expiry of Work Contract Period, Parties shall mutually discuss and agree on the transfer value of the Assets together with the termination and transfer assistance fee.
- The Successful Concessionaire shall be entitled to use the Assets for the duration of the exit management period which shall be three months from the date of expiry or notice of termination of the Agreement.
- For any material breach on the part of Concessionaire during the Project Implementation Phase and Operation & Management Phase, Client is entitled to provide notice in writing on the selected Concessionaire at any time during the exit management period as detailed here in above requiring the selected Concessionaire to provide the department or its nominated agencies with a complete and up to date list of the Assets within 30 days of such notice.

Upon service of a notice as mentioned in point above, the following provisions shall apply:

- All risk in and title to the Assets to be transferred to Client on the last day of the exit
 management period. All expenses incurred during transfer of assets shall be borne
 by the Successful Concessionaire.
- That on the expiry of this clause, the Successful Concessionaire and any individual
 assigned for the performance of the services under this clause must hand overall
 Confidential Information and all other related materials in its possession, including
 all the software and hardware supplied by selected Concessionaire under this clause
 to the department.
- As Concessionaire is supposed to provide comprehensive maintenance of all the hardware/Software as detailed in RFP during the concession period, Concessionaire must ensure that all the items are in working condition with support of OEM related

to repair/replacement/availability of spare parts for at least 03 years at the time of exit.

 From the first day of last month of the concession period, testing phase of overall system installed by the Concessionaire will be started in phases and in agreement with LMC so that all the equipment are proved to be in working conditions and handed over to LMC on the last date of the concession period and before issuing completion certificate and PBG.

33.3 Cooperation and Provision of Information

During the exit management period:

- a) The Concessionaire shall permit Client or its nominated agencies access to information reasonably required to classify the current mode of operation related with the provision of the services to enable it to Client assess the existing services being delivered.
- b) In the event of there being a termination owing to material breach by Concessionaire, on quick request by Client or its nominated agencies, the selected Concessionaire shall provide access to and copies of all information held or controlled by it which it has prepared or maintained in accordance with the Concession Agreement. The Project Implementation, the Operation and Management SLA and SoW (Scope of Work) relating to any material aspect of the services (whether provided by the selected Concessionaire). Client or its nominated agencies shall be entitled to copy all such information. Such information shall include details pertaining to the services rendered and other performance data. The selected Concessionaire shall permit Client or its nominated agencies and/or any entity nominated by Client to have reasonable access to it employees and facilities as reasonably required to understand the methods of delivery of the services employed by the selected Concessionaire and to support appropriate knowledge transfer.

33.4 Confidential Information, Security and Data

- The selected Concessionaire shall be quick on the commencement of the exit management period and supply to Client the following:
 - o Information relating to the present services provided and customer satisfaction surveys.
 - Documentation pertaining to Project related data and confidential information.
 - All current and updated data as is needed for purposes of the Client or its nominated agencies for transitioning the services either to Client or the entity nominated by Client.

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o All other information (including but not limited to documents, records and agreements) relating to the services reasonably compulsory to enable Client or its nominated agencies, or to the entity nominated by Client to carry out due diligence in order to transition the provision of the Services to the Client or its nominated agencies, or to any entity nominated by Client (as the case may be).

Before the exit management period expire, the selected Concessionaire shall deliver to Client or its nominated agencies all new or up-dated materials from the categories set out in point (i) above and shall not keep any copies thereof, except that the selected Concessionaire shall be permitted to keep one copy of such materials for archival purposes only.

• Before the exit management period expire, unless otherwise provided under the Concessionaire Agreement, Client or its nominated agencies shall deliver to the selected Concessionaire all forms of selected Concessionaire confidential Data which is in the possession or control of Client or its nominated agencies or during the exit management period In any time, the selected Concessionaire shall, subject to applicable laws, restraints and regulations(including in particular those relating to privacy) provide to Client or its nominated agencies a list of all employees (with job titles) of the selected Concessionaire dedicated to providing the services at the beginning of the exit management period; its users.

33.5 Employees

- Where any national, regional law or regulation relating to the mandatory or automatic transfer of the contracts of employment from the selected Concessionaire to the department or its nominees, or an entity nominated by Client applies to any or all of the employees of the selected Concessionaire, then the Parties shall comply with their respective obligations under such Transfer Regulations.
- To the extent that any Transfer Regulation does not apply to any employee of the selected Concessionaire or its nominated agencies or its entity nominated by Client may make an offer of employment or contract for services to such employee of the selected Concessionaire and the selected Concessionaire shall not enforce or impose any contractual provision that would prevent any such employee from being hired by the Client or its nominated agencies or any Replacement Concessionaire.

33.6 Transfer of Certain Agreements

On request by the Client or its nominated agencies, the selected Concessionaire shall effect such assignments, transfers, novation, licenses and sub-licenses in favor of Client or its nominated agencies, or its entity nominated by Client in relation to any equipment lease, maintenance or service provision agreement between selected Concessionaire and third party lessors, Concessionaires or Concessionaire, and

which are related to the services and reasonably necessary for the carrying out of replacement Concessionaire.

33.7 Right of Access to Premises

- At any time during the exit management period, where Assets are located at the selected Concessionaire's premises, the selected Concessionaire shall be obliged to give full rights of access to (or, in the case of Assets located on a third party's premises, procure reasonable rights of access to Client or its nominated agencies, and/or any entity nominated by Client in order to inventory the assets or Assets.
- The selected Concessionaire shall also give the Client or its nominated agencies, or any entity nominated by Client right of reasonable access to the selected Concessionaire's premises and shall procure the department or its nominated agencies and any entity nominated by Client rights of access to relevant third party premises during the exit management period and for such period of time following termination or expiry of the Concession Agreement as is reasonably necessary to migrate the services to Client or its nominated agencies, or a Replacement Concessionaire.

33.8 General Obligations of the Selected Concessionaire

- The selected Concessionaire shall provide all such information as may reasonably be necessary to effect as seamless a handover as practicable in the circumstances to Client or its nominated agencies or any entity nominated by the Client and which the selected Concessionaire has in its possession or control at any time during the exit management period.
- For the purposes of this Clause, anything in the possession or control of any selected Concessionaire or associated entity is deemed to be in the possession or control of the selected Concessionaire.
- The selected Concessionaire shall commit adequate resources to comply with its obligations under this Exit Management Clause.

33.9 Exit Management Plan

The Successful Concessionaire shall provide the Client or its nominated agencies with recommended exit management plan ("Exit Management Plan") which shall deal with Concession Agreement as a whole and in relation to the Project Implementation, the Operation and Management SLA and SOWs.

33.10 End of Support

While handling over the completely working and functional network and systems, Concessionaire must ensure that OEM of all hardware/software/ equipment are

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Requ	est for Proposal for Selection of Concessionaire for Implementing Smart LED Street Lights for A	BD area in Nashik City				
	contractually bound to provide support for repair/replacement/availabil parts for further five years. It shall be part of exit plan to submit letter this regard.					
	CEO, NMSCDCL	Concessionaire				

8.5. Annexure V: Format for Report

Nashik Municipal Smart City Development Corporation Limited

WEEKLY REPORT OF FIXTURES REPLACEMENT

	Date: DD/MM/YYYY
Number of fixtures dismantled till last week =	
Number of fixtures handed-over till last week =	
Number of fixtures for which sign-off obtained from Authority till la	ast week =
Number of fixtures dismantled this week =	

Signature of Concessionaire

{Name}

{Designation}

8.6. Annexure VI: Format of Bank Guarantee for Performance Security

In consideration of the [Insert name of the Bidder] submitting the response to RFP (RFP no dated) issued by Nashik Municipal Smart City Dayslanment Corporation Limited (bereinsfter referred to as "NMSCDCL") and
City Development Corporation Limited (hereinafter referred to as "NMSCDCL") and NMSCDCL considering such response to the RFP of [Insert the name of the Successful Bidder] (Which expression shall unless repugnant to the context or meaning thereof include its executers, administrators, successors and assignees) and selecting the [insert the name of the Successful Bidder] and issuing Letter of Award dated As per terms of RFP and the same having been accepted by [insert the name of the Successful Bidder].
As per the terms of the RFP, the [insert name & address of bank] (hereinafter referred to as ' Guarantor Bank') hereby agrees unequivocally, irrevocably and unconditionally to pay to NMSCDCL forthwith on demand in writing from NMSCDCL or any officer authorized by it in this behalf, any amount up to and not exceeding Rupees [Total Value] only, on behalf of M/s [Insert name of the Successful Bidder/ Project Company]
This guarantee shall be valid and binding on this Bank up to and including
Our liability under this Guarantee is restricted to Rs
Our Guarantee shall remain in force until NMSCDCL shall be entitled to invoke this Guarantee till
The Guarantor Bank hereby agrees and acknowledges that NMSCDCL shall have a right to invoke this BANK GUARANTEE in part or in full, as it may deem fit.
The Guarantor Rank hereby expressly agrees that it shall not require any proof in

The Guarantor Bank hereby expressly agrees that it shall not require any proof in addition to the written demand by NMSCDCL, made in any format, raised at the above mentioned address of the Guarantor Bank, in order to make the said payment to NMSCDCL.

The Guarantor Bank shall make payment hereunder on first demand without restriction or conditions and notwithstanding any objection by ------ [Insert name of the Successful Bidder]. The Guarantor Bank shall not require NMSCDCL to justify the invocation of this BANK GUARANTEE, nor shall the Guarantor Bank have any recourse against NMSCDCL in respect of any payment made hereunder.

This BANK GUARANTEE shall be interpreted in accordance with the laws of India and the courts at Nashik shall have exclusive jurisdiction.

The Guarantor Bank represents that this BANK GUARANTEE has been established in such form and with such content that it is fully enforceable in accordance with its terms as against the Guarantor Bank in the manner provided herein.

This BANK GUARANTEE shall not be affected in any manner by reason of merger, amalgamation, restructuring or any other change in the constitution of the Guarantor Bank.

This BANK GUARANTEE shall be a primary obligation of the Guarantor Bank and accordingly NMSCDCL shall not be obliged before enforcing this BANK GUARANTEE to take any action in any court or arbitral proceedings against the [insert the name of the Successful Bidder] to make any claim against or any demand on the Successful Bidder or to give any notice to [insert the name of the Successful Bidder] or to enforce any security held by or to exercise, levy or enforce any distress, diligence or other process against the Successful Bidder.

Notwithstanding anything contains restricted to Rs.			=		
remain in force until part thereof under this Bank Gu claim or demand.		-	_		-
Signature					
Name					
Power of Attorney No					
For					
[Insert Name of the Bank]					
Banker's Stamp and Full Address.					
Dated this day of, 20					
Witness:					
1					
Signature					
Name and Address					
2					
Signature					

Name and Address

- 1. We, the Bank, further undertake not to revoke this Guarantee during its currency except with the previous express consent of the NMSCDCL in writing.
- 2. The Bank declares that it has power to issue this Guarantee and discharge the obligations contemplated herein, the undersigned is duly authorized and has full power to execute this Guarantee for and on behalf of the Bank.
- 3. This Bank Guarantee and all questions of its interpretation shall be construed in accordance with the laws of India. The courts at Nashik shall have jurisdiction over matters arising out of or relating to this Bank Guarantee.

Signed and Delivered by [xx] Bank By the hand of Mr. /Ms. [xx], it's [xx] and authorized official.

(Signature of the Authorized Signatory) (Official Seal)