Ref Number: CSML/ Energy/ RFP/003-02 Date: 25/08/2023

Cochin Smart Mission Limited



REQUEST FOR PROPOSALS

For

"PAN CITY SMART LED STREETLIGHTS IN KOCHI
CORPORATION UNDER SMART CITIES MISSION, KOCHI
(THIRD CALL)"

CHIEF EXECUTIVE OFFICER
COCHIN SMART MISSION LIMITED (CSML)
4th Floor, JLN Stadium Metro Station, Kaloor, Kochi,
Kerala - 682017, India.
E-MAIL: info@csml.co.in





Cochin Smart Mission Limited (CSML) NOTICE INVITING TENDER (NIT)

Cochin Smart Mission Limited,

Date: 25/08/2023

4th Floor, JLN Stadium metro station, Kaloor, Kochi - 682017,

E-mail: procurement@csml.co.in

No. CSML/ ENERGY / RFP/003-02

Cochin Smart Mission Limited (CSML) invites online bids from eligible bidders through website www.csml.co.in, www.kochimetro.org and www.etenders.kerala.gov.in - under organization name - "Kochi Metro Rail Ltd." for "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"

The revised details are as under.

Sl. No.	Event's Name	Information
1.	Organization	Cochin Smart Mission Limited (CSML)
2.	Project	Smart City Projects under Smart City Mission
3.	NIT No.	CSML/ ENERGY / RFP/003-02
4.	Name of Work	PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)
5.	Time for Completion	7 months (including monsoon period)
6.	Form of Contract and Class of Contract	Open Tender Two Cover bidding (E- Tender)
7.	Type of Tender	Item rate - BOQ based contract



Sl. No.	Event's Name	Information	
8.	Tender document Fee	Rs 15,000/- plus Rs 2,700/- (GST) = Rs. 17,700 (Rupees Twenty-Three Thousand Six Hundred Only) through Online e-Tendering Payment Gateway (https://etenders.kerala.gov.in) only.	
9.	Bid security / Earnest Money Deposit (EMD)	Rs. 5 Lakh (Rupees Five Lakh Only) through Online e-Tendering Payment Gateway (https://etenders.kerala.gov.in) only.	
		Exemption regarding EMD/SD/PBG granted to MSMEs is not applicable for Civil/Electrical/ Infrastructure Contracts as per Government Order G. O. (P) No.1/2021/FIN. dated, Thiruvananthapuram, 03.01.2021.	
10.	Bid Document Downloading Start Date	25th August 2023	
11.	Last date for Online Purchase of Tender Document	14 th September 2023, till 11.00 hrs.	
12.	Last Date for sending pre-bid queries	1st September 2023, till 11.00 hrs.	
13.	Date of Prebid meeting	5 th September 2023, till 15.00 hrs.	
14.	Last date of Online Submission of Bids	14 th September 2023, till 17:30 hrs.	
15.	Last date of submission of original Power of Attorney (Hard copy)	16 th September 2023, till 14.00 hrs.	
16.	Date & Time for Opening of Technical Bids	16 th September 2023, till 15.00 hrs.	
17.	Bid Validity	180 days from the latest date of opening of Technical Bids	
18.	Officer Inviting Bids	Chief Executive Officer, CSML	
19.	Bid Clarification and Queries Addressed to	https://etenders.kerala.gov.in with mail to General Manager, CSML (Email: procurement@csml.co.in)	



-sd-Chief Executive Officer Cochin Smart Mission Limited

e-Tender Submission Guidelines

- The Bid should be submitted online at website http://etenders.kerala.gov.in by the due date and time, as specified in the NIT. Late/delayed tenders submitted online after the due date and time, for whatsoever reasons will not be considered. The Server Date & Time as appearing on the website. http://etenders.kerala.gov.in shall only be considered for the critical date and time of tenders. Offers sent through post, telegram, fax, telex, e-mail, courier will not be considered.
- 2. Partially completed/incomplete bids shall not be considered.
- 3. All communication shall be done online through website http://etenders.kerala.gov.in with e-mail communications to procurement@csml.co.in
- 4. Bidders shall be required to arrange all resources, including Digital Signature Certificates and Internet Connections at their own cost, for participating in online tenders at http://etenders.kerala.gov.in.
- 5. M/s Cochin Smart Mission Limited (CSML) shall not be responsible for any delays whatsoever in receiving as well as submitting offers, including connectivity issues. M/s. Cochin Smart Mission Limited (CSML) shall not be responsible for any other delays in submitting any documents wherever applicable.
- 6. M/s. Cochin Smart Mission Limited (CSML) will not be responsible for the cost incurred in preparation and submission of bids including the cost of digital certificate, regardless of the conduct of outcome of the bidding process.

7. Two cover system

If two bid systems is insisted, Bidders are required to submit offer in Two covers, namely



"Tender Submission Fee / EMD / Power of Attorney / Joint Venture Agreement / Prequalification including Technical Bid "-- Cover - I

And

"Financial Bid" ---Cover -II

- 8. Cover-I (Tender Submission Fee / EMD / Power of Attorney / Joint Venture Agreement / Prequalification including Technical Bid)
 - a) **Tender Fee-** To be paid online at http://etenders.kerala.gov.in only.
 - b) EMD To be paid in the form of Bank guarantee issued by a scheduled commercial bank in India in the format prescribed in RFP. The scanned copy of Bank Guarantee (EMD) to be uploaded in the e-tender website www. etenders.kerala.gov.in. Original EMD to be submitted (in a sealed envelope mentioning name of work) in the Tender Box at the CSML office, 4th Floor, JLN Stadium metro station, Kaloor, Kochi 682017, Kerala, India before due date and time for submissions of original EMD, Joint Venture Agreement and Power of Attorney (Hard copy) mentioned in NIT/ RFP/ Bidding document/ latest Corrigendum.
 - c) Power of Attorney (PoA) & Joint Venture Agreement to be scanned and uploaded in the e-tender website. Original PoA and JV/Consortium agreement to be submitted (in a sealed envelope mentioning name of work) in the Tender Box (Duly Notarized Copy of PoA also will be accepted for the bidding purpose)at the CSML office, 4th Floor, JLN Stadium metro station, Kaloor, Kochi 682017, Kerala, India before due date and time for submissions of original EMD, Joint Venture / Consortium Agreement and Power of Attorney (Hard copy) mentioned in NIT/ RFP/ Bidding document/ latest Corrigendum.
 - **d) Prequalification including Technical Bid-** Bidders are requested to upload the scanned copies of the following details along with documents indicated in NIT/ RFP/ Bidding document/ latest Corrigendum "online".
 - i) The scanned copy of the NIT/ Bidding document/ latest Corrigendum including Prebid Minutes and Addendum (if any) duly signed and stamped in all pages.
 - Notarized, Scanned copies of Prequalification / Technical Qualification supporting documents, signed scanned copies of various forms, Letter of Technical Bid, including Technical Bid.



iii) All documents signed and scanned including GCC, SCC, Annexures to GCC, SCC as detailed in the Bidding document,

9. Cover-II (Financial Bid)

- Bidders are requested to quote rates in the Finance cover (BOQ) only.
- Price bid to be uploaded only in e-tender website: http://etenders.kerala.gov.in
- PLEASE DO NOT QUOTE/MENTION RATES ANYWHERE ELSE IN THE TENDER OTHER THAN BOQ
- In the Bid submitted by the bidder, if the prices or price bid are disclosed anywhere else other than in the BOQ, the Bid / tender would be liable for disqualification and would summarily be rejected
- 10. In case if applicant does not hold any document, which need to be uploaded OR there is no need to upload the mentioned document please upload a scanned copy stating the reason for not uploading OR a blank sheet for proceeding with tendering. Provisions for uploading cannot be left blank.
- 11. Please note that queries related to enquiry specifications, terms & conditions etc can be submitted to https://etenders.kerala.gov.in with e-mail copy to General Manager, CSML (Email: procurement@csml.co.in) before the Last date & time for sending Pre-bid queries specified in the NIT.
- 12. Tender opening will be done online at the time and dates specified in NIT/ RFP/ Bidding document/ latest Corrigendum.
- 13. The bidders are requested to go through the instruction to the bidders on the website http://etenders.kerala.gov.in. The bidders who submit their bids for this tender after digitally signing using their Digital Signature Certificate (DSC), accept that they have clearly understood and agreed the terms and conditions on the website including the terms and conditions of this tender.
- 14. In case of any queries on e-tender, Bidder may Contact below mentioned helpdesk

e-tender helpdesk of Kerala	IT	Phone number: 0484-2332262
Mission:		

15. M/s. Cochin Smart Mission Limited (CSML) reserves the right to accept any offer in whole or in part or reject any or all offers without assigning any reason M/s Cochin Smart Mission Limited (CSML) reserves right to accept any or more offers in part. Decision of



- M/s. Cochin Smart Mission Limited (CSML) in this regard shall be final and binding on the bidder.
- 16. M/s. Cochin Smart Mission Limited (CSML) reserves the right to cancel any tender/bidding process at any stage without assigning any reason.
- 17. Corrigendum / addendum, which form part of the tender document, shall be published in the e-tender website (http://etenders.kerala.gov.in) as well as in CSML website http://csml.co.in/tenders and bidders are advised to check the websites regularly for the updates related to the tender before submitting the Bid.



COCHIN SMART MISSION LIMITED

VOLUME-1



VOLUME- 1 In	cludes
☐ Section	n-I
☐ Section	n-II
☐ Section	n-III
☐ Section	n-IV
☐ Section	n-V
☐ Section	n - VI
☐ Section	n- VII
	n- VIII
☐ Section	n- IX
VOLUME- 2 In	icludes
☐ Bill of	Quantities (BOQ) .xls file (Part of Section IV)



COCHIN SMART MISSION LIMITED

Section I. Instructions to Bidders



Section I. Instructions to Bidders

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Section I. Instructions to bidders

RFP FOR "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"



		COCHIN SMART MIS	SION LIMITED
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COCHIN SMART MISSION LIMITED

Section I. Instructions to Bidders

<u>Clause</u>	Sub- Clause Provision		
A. General			
1. Scope of Bid	 The Procuring Entity / Employer, as defined in the Bid Data Sheet (BDS), hereinafter called the "Employer" wishes to receive bids for the Works and Services identified in the Bid Data Sheet for the "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)". The Contract will cover the service area indicated in the Bid Data Sheet and consisting of: The Contractor shall undertake (a) Detailed investigations, surveys of various infrastructures mentioned below in the service area. 		
	 (b) To develop infrastructure to upgrade all conventional type of Streetlights in Cochin Corporation into smart LED system under Smart City Mission in the area as described in Bid Data Sheet. The scope of work includes but not limited to: ► Design, development, manufacture, inspection& testing at supplier/manufacturer's works, delivery to the site, installation, site testing & commissioning and operation & maintenance of LED Street Lights of specified lumens/wattage and associated Fixtures for use on the existing Poles of KSEB Limited in the Kochi Corporation area ► Based on detailed investigation and site surveys of the project area, the Contractor shall prepare and submit the detailed drawing specifying the total number and rating of LED lamps of optimum lumens based on the category of roads and number of CCMS panels required and to obtain prior approval before procurement. 		



_		COCHIN SMART MISSION LIMITED
<u>Clause</u>	<u>Sub-</u> <u>Clause</u>	<u>Provision</u>
		► Dismantling of all existing conventional type of streetlight fittings under project scope area carefully, transport and stacked in the warehouse proposed by Cochin corporation.
		► Installing LED lamps of required Lumens of approved make with necessary accessories and connections.
		► Installing Smart Group control (CCMS) panels with necessary cable connections as required.
		► Minor Civil works like foundations for CCMS panels etc. wherever required.
		► Earthing system for newly installing Group Control Panels
		► Coordination with Cochin Corporation/KSEBL for all approvals, work permits and providing the Street mains wherever not available. Providing street mains for entire project area is the sole responsibility of Cochin Corporation/KSEBL and Contractor has to coordinate with Corporation/KSEBL to provide the street mains wherever not available
		► The smart group control Panels (CCMS Panels) System should be connected to IC4 system and smart meters shall be connected to smart metering systems of KSEB and IC4.
		► Control, monitoring and metering systems in CCMS Panels shall be integrated with Integrated Command and Control Centre of CSML and metering systems of KSEB.
	(c)	Works related to all basic infrastructure facilities enabling to integrate the same with Command and control center as described in Bid Data Sheet (BDS) .
	(d)	Provide 7 years (Seven years) warranty (starting from the commissioning and issuing initial completion certificate date whichever is later) of all LED lights and fixtures including the entire contract period including the DLP and O&M periods. During O & M period of 5 years (Five years) all installed equipment such as LED lights and fixtures, CCMS panels, Communication system, cables,



<u>Clause</u>	<u>Sub-</u> <u>Clause</u>	<u>Provision</u>
		connectors, etc. shall be covered full replacement/repair warranty by the Contractor. For 2 years (two years) extended warranty for LED lights and fixtures after 0&M period, the Contractor has to submit the warranty certificate after successful completion of five years of 0 & M period and consequent issuing of Final Completion Certificate after final handing over of all installed Smart LED system in good working condition to Cochin Corporation.
	The id	As part of the warranty obligation, Bidder shall maintain 5% of the supplied quantity of LED street lights of each category as buffer stock at their site storage location during O&M period and in consequent two years to replace faulty street lights for avoiding delay in replacement during the warranty period.
		The successful bidder will be expected to carry out the Works and Services during the period stated in the Bid Data Sheet (BDS) .
	1.3	Throughout these Bidding Documents:
		(a) the terms "bid", "tender" and "proposal" and their derivatives ("bidder / tenderer", "bid / tender", "tendered / proposed", "bidding / tendering", "bidding document / request for proposal / tender document", etc.) are synonymous
		(b) the term "in writing" means communicated in written form and delivered against receipt;
		(c) except where the context requires otherwise, words indicating the "singular" also include the "plural" and words indicating the "plural "also include the "singular"; and



		COCHIN SMART MISSION LIMITED
<u>Clause</u>	<u>Sub-</u> <u>Clause</u>	<u>Provision</u>
		(d) "day" means calendar day.
2. Source of Funds	2.1	The Implementing authority namely Cochin Smart Mission Limited (CSML) (hereinafter called "Authority" / "Department") indicated in the BDS will receive funding from Government of India and the State Government / Kochi Municipal Corporation for implementing projects under Smart City Mission of Area Based Development of Kochi Smart city toward the cost of the project named in the BDS. The Authority intends to apply a portion of the funds to eligible payments under the contract(s) for which these Bidding Documents are issued.
3. Eligible Bidders	3.1	This invitation to bid is open to any bidder (including all members of a joint venture and all subcontractors of a bidder) meeting all of the following requirements: (a) A Bidder may be a natural person, private entity or any combination of such entities supported by an agreement in the form of a joint venture (JV)/Consortium. In the case of a JV/Consortium:
		(b) A Bidder, and all partners constituting the Bidder, shall have the nationality of Employer's country A Bidder shall be deemed to have the nationality of a country if the Bidder is a citizen or is constituted, incorporated, or registered and operates in conformity with the provisions of the laws of Employer's country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including related Services
		(c) A Bidder may be a natural person, private entity or any combination of such entities supported by an agreement in the form of a joint venture (JV)/Consortium.



<u>Clause</u>	<u>Sub-</u> <u>Clause</u> <u>Pr</u>	<u>ovision</u>
	(d)	In the case of a JV/Consortium:
	i.	unless otherwise specified in the BDS , all partners shall be jointly and severally liable, for the execution of the Contract in accordance with the Contract terms, and
	ii.	The JV/Consortium shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the partners of the JV/Consortium during the bidding process and, in the event the JV/Consortium is awarded the Contract, during contract execution.
	iii.	In case of any one of the partners of the JV/Consortium is a newly incorporated/taken over entity, all the procedures and approvals for incorporation shall be completed in all respects at least three year before the bid submission date.
	(e)	A bidder shall not be affiliated with a firm or entity
	(i)	that has provided consulting services related to the Works to either the Employer or the Authority during the preparatory stages of the Works or of the Project of which the Works form a part, or
	(ii)	That has been hired (or is proposed to be hired) by the Employer or Borrower as Project Manager (Engineer) for the contract.
	(f)	A bidder shall be technically qualified for the contract as notified by the Employer.
	(g)	A bidder shall not be under a declaration of ineligibility for corrupt or fraudulent practices issued by the Employer.



Classes	Sub-	Provided on
<u>Clause</u>	<u>Clause</u>	<u>Provision</u>
	3.2	A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:
		(a) they have at least one controlling partner in common; or
		(b) they receive or have received any direct or indirect subsidy from any of them; or
		(c) they have the same legal representative for purposes of this bid; or
		(d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or
		(e) a Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which such Bidder is involved. However, this does not limit the inclusion of the same subcontractor in more than one bid; or
		(f) a Bidder participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the bid;
		(g) a Bidder or any of its affiliates has been hired (or is proposed to be hired) by the Employer or Borrower as Engineer for the Contract implementation.



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<u>Clause</u>	<u>Sub-</u> <u>Clause</u>	<u>Provision</u>
	3.3	Bidder Should not have failed in the last three (3) years to perform on any contract or been expelled from or abandoned any PWD, Government of Kerala work, any other State Government, Central Government or have any of their works rescinded for any reason. (A declaration to this effect shall be furnished).
	3.4	Government-owned entities in the Employer's country shall be eligible only if they can establish that they are legally and financially autonomous and operate under commercial law. Also, they shall not be dependent agencies of the Employer.
	3.5	Bidders shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer shall reasonably request.
	3.6	The bidder shall be either a manufacturer or an authorized supplier of LED type streetlights having installation, commissioning, operation & maintenance agency. If the bidding firm is not the manufacturer of LED street light fixtures, he must submit a copy of authorization from the LED street light manufacturer stating that it will supply LED street light fixtures and its spares as per technical specifications of this tender.
	3.7	Bidder shall have a valid Contractors license issued by Kerala State Electrical Inspectorate or any other state /UT in India. The copy of license must be submitted at the time of bidding.
	3.8	The bidder should be a manufacture of LED type streetlights having electrical contract license or BEE accredited ESCO company of Grade 3 or above (i.e., Grade 1 to 3) at the date of their bid submission and to be continued the accreditation during the entire contract period.
	3.9	Bidder should have the registration of PAN, EPF, ESIC, & GST



<u>Clause</u>	<u>Sub-</u> <u>Clause</u> Provision		
	and shall submit the copy of such registrations or any other mandatory documents for verification.		
4. Eligible Materials, Equipment, and Services	4.1 The bidder should enclose the relevant certificates mentioned in the technical specifications including LM 79 test report along with the bid from Government Laboratory with NABL accreditations CPRI, CETL or ERDA to certify Lumen & LPW requirements and LM 80 report from the LED manufacturer.		
5. Qualification of the Bidder	5.1 Bidders shall, as part of their bid:(i) submit a written power of attorney authorizing the signatory of the bid to commit the bidder; and(ii) deleted		
	As a minimum, bidders shall update the following information:		
	(a) evidence of access to lines of credit and availability of other financial resources;		
	(b) financial predictions for the current year and the two following years, including the effect of known commitments;		
	(c) work commitments.		
	(d) current litigation information; and		
	(e) Availability of critical equipment.		
	5.2 Bids submitted by a joint venture/consortium of two or more firms as partners shall comply with the following requirements:		
	 (a) the bid shall include all the information listed in Sub-Clause 5.1 ITB above; (b) the bid security, the bid, and in case of a successful bid, the Agreement, shall be signed so as to be legally binding on all partners; (c) one of the partners shall be nominated as being in 		



<u>Clause</u>	<u>Sub-</u> Clause	<u>Provision</u>
		charge, and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners; (d) the partner in charge shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the joint venture and the entire execution of the Contract, including payment, shall be done exclusively with the partner in charge; (e) all partners of the joint venture/consortium shall be liable jointly and severally for the execution of the Contract in accordance with the contract terms, and a statement to this effect shall be included in the authorization mentioned under (c) above, as well as in the bid and in the Agreement (in case of a successful bid); and (f) a copy of the Joint Venture/Consortium Agreement entered into by all partners shall be submitted with the bid.
	-	Bidders shall also submit proposals of work methods and schedule in sufficient detail to demonstrate the adequacy of the bidders' proposals to meet the Technical Specifications and the completion time referred to in Sub-Clause 1.2 ITB above.
6. One Bid per Bidder		A firm shall submit only one bid in the same bidding process, either individually as a bidder or as a partner in a joint venture. No firm can be a subcontractor while submitting a bid individually or as a partner of a joint venture in the same bidding process. A firm, if acting in the capacity of subcontractor in any bid, may participate in more than one bid, but only in that capacity. A bidder who submits or participates in more than one bid will cause all the proposals in which the bidder has participated to be disqualified.



_		COCHIN SMART MISSION LIMITED
<u>Clause</u>	<u>Sub-</u> <u>Clause</u>	<u>Provision</u>
7. Cost of bidding	7.1	The bidder shall bear all costs associated with the preparation and submission of his bid, and the Procuring entity / Employer will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process. Submission of a bid does not entitle the bidder to claim any cost and rights over AUTHORITY and AUTHORITY shall be at liberty to cancel any or all bids without giving any notice. All materials submitted by the bidder shall be the absolute property of AUTHORITY and no copyright etc. shall be entertained by AUTHORITY.
	7.2	Bidding document can be downloaded free of cost from the website www.etenders.kerala.gov.in . RFP Document Fee / Bid Submission fee / Tender fee specified in BDS shall be paid through online e-Tendering Payment Gateway only (https://etenders.kerala.gov.in) for submission of bid. The RFP document fee / Bid submission Fee / Tender fee shall be non-refundable. Without the payment of Bid Fee, the bids will be taken as incomplete and non-responsive and shall not be considered.
8. Site Visit	8.1	The bidder is advised to visit and examine the areas / site of Works in which the Works / services of this contract shall be carried out and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for the construction of the Works / services to be provided under the contract. The costs of visiting the Site shall be at the bidder's own expense.



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<u>Clause</u>	<u>Sub-</u> <u>Clause</u>	<u>Provision</u>
	8.2	The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, provided the Bidder gives AUTHORITY adequate notice of not less than 7 (Seven) days prior to such proposed visit. But only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the "Procuring entity" / "Employer" and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.
	8.3	No site visits shall be arranged or scheduled after the deadline for the submission of the Bids and prior to the award of Contract.
	8.4	Special conditions:
	i.	Bidder should submit a method statement detailing the approach and methodology, technical specifications of the solution offered of the project and will be asked to present to the AUTHORITY upon request.
	ii.	The bidder should demonstrate the CCMS and Street light management software capabilities and functionalities to the Authority on demand during the period of technical evaluation.
	iii.	The bidder should submit NABL accredited certificate to prove the quality of Hot Dip Galvanizion (80 Micron) of Iron materials for Light Fixing Arms and Clamps before awarding of the contract (Self declaration is acceptable for the Bidding purpose and technical evaluation) and, should fabricate and present one sample of the Light Fitting Arms and Clamps set in full to the AUTHORITY on demand during



<u>Clause</u>	Sub- Clause Provision		
	technical evaluation period to demonstrate the strength and quality.		
	B. Bidding Documents		
9. Content of Bidding Documents	a. The bidding documents are those stated below and should be read in conjunction with any Addenda issued in accordance with Clause 11 ITB:		
	(i) Technical bid (Volume 1) Comprising of-		
	Volume 1:		
	(i). Invitation for Bids / Notice Inviting Tender (NIT)		
	(ii) Section I. Instructions to Bidders (ITB)		
	(iii) Section II. Bid Data Sheet (BDS)		
	(iv) Section III Qualification Criteria		
	(v) Section IV Bidding Forms		
	(vi) Section V. Employer's Requirements / Works requirements including Scope of work, Technical Specifications		
	(vii) Section VI. General Conditions of Contract (GCC)		
	(viii) Section VII. Special Conditions of Contract (SCC) / Contract Data		
	(ix) Section VIII . Annex to Special Conditions- Contract Forms [Form of Agreement, Forms of Performance Security, and Bank Guarantee for Bid security (EMD)]		
	(ii) Price bid (Volume 2) Comprising of-		
	Volume 2:		
	i) Bill of Quantities (BOQ), Microsoft excel file (.xls format)		
	9.1 The Employer is not responsible for the completeness of the		



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		obtained	Documents and their addenda, if they were not directly from the source stated by the Employer in e Inviting Tender (NIT) / Invitation for Bids.
		terms, and to furnish Bidding I new docus submission submitted technical AUTHOR bidders regarding with Bids Failure t	er is expected to examine all instructions, forms, d specifications in the Bidding Documents. Failure in all information or documentation required by the Documents may result in the rejection of the bid. No aments shall be allowed to be submitted after the bid on date (other than clarifications to the already did document if demanded by the AUTHORITY during evaluation) and the decision in this regard by the ITY will be final and binding to all the bidders. The are hence to ensure and ascertain in advance of the details of documents to be submitted along submission.
		the Bid m	ay be rejected.
		Bidders n	nust:
		(a)	Include all documentation specified in this RFP / Bidding document, in the bid
		(b)	Follow the format of this RFP / Bidding document while developing the bid and respond to each element in the order as set out in this RFP / Bidding document
		(c)	Comply with all requirements as set out within this RFP / Bidding document
	& Con	ditions, S	ll be deemed to have carefully examined the Terms cope, Service Levels, Specifications, and Schedules dding document.
			ll furnish through e-tendering all information or required by the Bidding Documents.



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10. Clarification of Bidding Documents, Pre-Bid Meeting	10.1 A prospective bidder requiring any clarification of the bidding documents may notify the Employer in writing (hereinafter, the term "in writing" is deemed to include emand facsimile) at the "Procuring entity"s / "Employer's" mail address indicated in the Bid Data Sheet or raise the enquiries before the stipulated date for sending preductives for the pre-bid meeting if provided for in accordance with Clause 11 ITB.	
	The "Procuring entity" / "Employer" will respond to request for clarification that they receive before stipulated last date and time (indicated in NIT / RI Bidding document / Corrigendum -whichever is latest sending Pre-bid queries for the scheduled pre-bid mee Copies of the "Procuring entity" / "Employer's" response be published on e-Tendering Portal as indicated in BDS www.etenders.kerala.gov.in., including a description the inquiry but without identifying its source. Should clarification result in changes to the essential elements of Bidding Documents, the "Procuring entity" / "Employed Shall amend the Bidding Documents following the proce under Clause 11 ITB and Sub-Clause 22.2 ITB at a discretion.	the FP / F) for eting. E will S, i.e. on of I the of the oyer" dure
	pre-bid meeting on the stipulated date and time (indicate NIT / RFP / Bidding document / Corrigendum -whicheve latest) if provided in the BDS. The representatives, limits to 3, of the interested organizations may attend the premeeting at their own cost. The purpose of the meeting provide bidders with information regarding the RI Bidding document and the proposed works / ser requirements in reference to the RFP / Bidding document and to clarify issues and to answer questions on any mathat may be raised at that stage. Pre-Bid meeting will provide each bidder with an opportunity to	ed in ver is nited e-bid is to FP / rvice ment also



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		clarifications regarding any aspect of the RFP / Bidding document and the project.
	10.4	All Bidders shall e-mail their queries to https://etenders.kerala.gov.in with e-mail communication to GM, CSML (Email: procurement@csml.co.in in the format of "Form Pre-Bid" as prescribed in Section IV Bidding Forms to reach the Employer before the stipulated date for sending pre-bid queries. Queries received beyond stipulated last date and time will not be considered.
	10.5	Minutes of the pre-bid meeting, including the text of the questions raised, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be published on e-Tendering Portal i.e. www.etenders.kerala.gov.in . No telephonic / queries will be entertained thereafter. This response of AUTHORITY shall become integral part of RFP / Bidding document. AUTHORITY shall not make any warranty as to the accuracy and completeness of responses. Any modification to the Bidding Documents that may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an Addendum/Corrigendum pursuant to Clause 11 ITB.
	10.6	Non-attendance at the pre-bid meeting will not be a cause for disqualification of a Bidder.



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	10.7	AUTHORITY shall endeavor to respond to the questions raised or clarifications sought by the Bidders. However, AUTHORITY reserves the right not to respond to any question or provide any clarification, in its sole discretion, and nothing in this clause shall be taken or read as compelling or requiring AUTHORITY to respond to any question or to provide any clarification especially to those queries which were received beyond the stipulated last date for sending Pre-Bid queries.
	10.8	AUTHORITY may also on its own motion, if deemed necessary, issue interpretations and clarifications to all Bidders. It may issue supplements to this RFP/ bidding document. Any such corrigendum shall be deemed to be incorporated by this reference into this RFP / Bidding document. All clarifications and interpretations issued by AUTHORITY shall be deemed to be part of the Bidding Documents. Verbal clarifications and information given by AUTHORITY or its employees or representatives shall not in any way or manner be binding on AUTHORITY.
11. Amendment of Bidding Documents	11.1	At any time prior to the deadline for submission of bids, the Employer may amend the Bidding Documents by issuing Corrigendum/addendum.
	11.2	Any corrigendum/addendum thus issued shall be part of the Bidding Documents pursuant to Sub-Clause 9.1 ITB. All the Corrigendum / Addendum made in the document would be published on the e-Tendering Portal i.e. www.etenders.kerala.gov.in and shall be part of RFP / Bidding document. The Bidders are advised to visit the e-tendering portal (www.etenders.kerala.gov.in) on regular basis to check for



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	necessary updates. AUTHORITY also reserves the right to amend the dates mentioned in this RFP / Bidding document.
	11.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer may extend the deadline for the submission of bids at its discretion, pursuant to Sub-Clause 22.2 ITB.
	C. Preparation of Bids
12. Language of Bid	12.1 The bid, and all correspondence and documents related to the bid exchanged by the bidder and the Employer shall be written in the bid language stipulated in the Bid Data Sheet (BDS). Supporting documents and printed literature furnished by the bidder may be in another language provided they are accompanied by an accurate translation of the relevant passages in the above stated language, in which case, for purposes of interpretation of the bid, the translation shall prevail/govern.
13. Documents Comprising the Bid	13.1 The bid submitted by the bidder shall comprise the following:
	(A) Technical bid which contains the following parts in the following order:
	i) Letter of Technical Bid
	ii) Part I - the information required to be furnished as part of Technical Proposal as indicated in Clause 13.2 ;
	iii) Part II - the Bid Security; in accordance with ITB 19;
	iv) Part III - where applicable, the joint venture / consortium agreement - documents required by Clause 13.3 ;



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	v) Part IV - a written power of attorney demonstrating the authority of the person or persons signing the Proposal to bind the Bidder in accordance with ITB 20.2 ;
	vi) Part V - optional, pre-printed literature (required if any); and
	vii) the duly filled-in Letter of Technical Bid / Form of Bid;
	viii) the Appendix to Bid- Schedule of Adjustment data
	(B) the Financial Bid which consists of:
	(i) Duly Completed- priced Bill of Quantities
	Any other document required in the BDS .
	13.2 Part I of the Technical bid shall consist of the following sub-parts in the following order:
	(i) a detailed "Methodology" setting out the manner in which the Bidder proposes to carry out the Works and Services.
	(ii) a detailed "work plan" and "time schedule" for all Works and Services;
	(iii) a concept for transfer of technology and training of the Employer's staff during the last year of the contract
	(iv) supporting documentation and technical specifications of all materials and equipment specified in Part F of the Technical Specifications
	(v) a detailed "Staffing Plan" setting out the Bidder's proposed staffing arrangements;
	(vi) a description of how the Bidder will work with



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			local contractor(s)
		(vii)	a table entitled "Summary of Staff Qualification" setting out all proposed positions for Key Staff and the qualifications, years of experience and areas of experience for each of the proposed positions.
		(viii)	expertise for each of the proposed positions; a section entitled "Curriculum Vitae" which contains the signed curriculum vitae for each of the Key Staff; and optional: any other information that may be required.
	12 2	Fach Join	required t Venture (Consortium Ridder shall submit as Part
	13.3	III of the of a lette	t Venture/Consortium Bidder shall submit, as Part Technical Bid, a written commitment, in the form or duly executed by an authorized officer of each ture / Consortium participant, which,
		p; cc cc (b) cc p; se th	onfirms each joint venture/ consortium articipant's commitment to the joint venture/ consortium and acceptance of the joint venture / consortium arrangements described in the Proposal; confirms each joint venture/consortium articipant's willingness to provide a joint and everal guarantee to the AUTHORITY to underwrite the performance of the joint venture/consortium in espect of the Contract; and
		• •	lentifies which joint venture/consortium articipant,
			(i) will assume the leading role on behalf of the other joint venture/consortium participants; and
			(ii) will have the authority to commit all joint venture/consortium participants
	13.4	bids subr	on to the requirements under Sub-Clause 11.1 ITB , mitted by a JVA / Consortium shall include a copy of Venture/Consortium Agreement entered into by all



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		partners. Joint Venture/ Consortium Agreement shall be signed by all partners and submitted with the bid, The Bidder shall upload through e-tendering a Technical Proposal / Technical bid as detailed above.
14. Letter of Technical Bid and Schedules	14.1	The Letter of Technical Bid and Schedules, including the Bill of Quantities, shall be prepared using the relevant forms furnished in this RFP / Bidding document. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under Sub-Clause 20.2 ITB . All blank spaces shall be filled in with the information requested.
15. Alternative Bids	15.1	Bidders shall prepare their bids in accordance with the bidding document. Unless otherwise indicated in the BDS , alternative bids shall not be considered during bid evaluation, except if so indicated in the Bid Data Sheet .
	15.2	When alternative times for completion are explicitly invited, a statement to that effect will be included in the Bid Data Sheet , as will the method of evaluating different times for completion.
	15.3	Except as provided under Sub-Clause ITB 15.4 below, Bidders wishing to offer technical alternatives to the requirements of the Bidding Documents must first price the Employer's design as described in the Bidding Documents and shall further provide all information necessary for a complete evaluation of the alternative by the Employer, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the lowest evaluated Bidder conforming to the basic technical requirements shall be considered by the Employer.



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	15.4	When specified in the BDS, Bidders are permitted to submit alternative technical solutions for specified parts of the Works, and such parts will be identified in the Bid Data Sheet, as will the method for their evaluating, and described in Section V, Works Requirements / Employer's Requirements.
16. Bid Prices	16.1	Entire works and services as described in Sub-Clause 1.1 shall be based on a Performance Fee. All services are paid for each item of work specified as per the unit rates in the Bill of Quantities (BOQ).
	16.2	The prices quoted by the Bidder in the Bill of Quantities shall conform to the requirements specified below.
		(i) The Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the rates for other items and prices in the Bill of Quantities.
		The Bidder shall fill in unit rates in figures for all items of the Works described in the Bill of Quantities. The system will automatically convert the unit rates mentioned in figures to words and also calculate the amount of that item as well as the total Bid value.
		(ii) The price quoted in the Price bid ie. Bill of quantities shall be the total price of the bid.
	16.3	All duties, taxes, and other levies excluding GST payable by the Contractor under the Contract, or for any other cause, as of the date 28 days prior to the deadline for submission of bids, shall be included in the rates and prices and the total Bid Price submitted by the bidder.



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	16.4	Except if the Bid Data Sheet defines the contrary, the prices quoted by the bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract. The bidder shall furnish the indices and weightings for the price adjustment formulae in the " Appendix to Bid-Schedule of Adjustment data " in the prescribed format included in Section IV Bidding Forms and shall submit with its bid such other supporting information as required under the Conditions of Contract. The Employer may require the bidder to justify its proposed weightings. The Bidder shall furnish the weightings through e-tendering, for the price adjustment formulae in the "Appendix to Bid-Schedule of Adjustment Data". If the same is not furnished it will be deemed as null and void and Contractor shall not claim for the same.
17. Currencies of Bid and Payment	17.1	The currency (ies) of the bid and the currency(ies) of payments shall be as specified in the BDS .
18. Bid Validity	18.1	Bids shall remain valid for the period specified in the BDS from the latest Technical bid opening date prescribed by the Employer in accordance with Sub-Clause 22.1 ITB . A bid valid for a shorter period shall be rejected by the Employer as non-responsive.
	18.2	In exceptional circumstances, prior to expiry of the original bid validity period, the Employer may request Bidders to extend the period of validity of their bids for a specified additional period. The request and the responses thereto shall be made in writing. A bidder may refuse the request without forfeiting its bid security. A bidder agreeing to the request will not be required or permitted to modify its bid, but will be required to extend the validity of its bid for the requested period and also shall extend bid security validity



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		_	y-eight (28) days beyond the deadline of the validity period and in compliance with Clause 19 respects.
19. Bid Security	19.1	The Bidder shall furnish as part of its bid, a bid security as specified in the BDS , in original form and, in the case of a bid security, in the amount and currency specified in the Bid Data Sheet (BDS) .	
	19.2	If a bid sec	curity is specified pursuant to Sub-Clause 19.1
		(i)	the bid security shall be substantially in accordance with forms as specified in the Bid Data Sheet (BDS). Out of various forms specified in BDS, at the Bidder's option, the same shall be provided in one of the form. Prescribed Forms / Format of bid security included in Section IV Bidding Forms.
		(ii)	The bid security shall be valid for Sixty (60) days beyond the original validity period of the bids. Further, if requested under Sub-Clause 18.2 ITB, should be valid sixty (60) days beyond the extended validity period of the bids
		(iii)	be payable promptly upon written demand by the employer in case any of the conditions listed in Sub-Clause 19.7 ITB are invoked;
		(iv)	be submitted in its original form; copies will not be accepted;



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		(v) The Bid submitted without Bid Security /EMD (Earnest Money Deposit), mentioned above, will be summarily rejected
	19.3	The bid security of a Joint Venture Bidder shall be in the name of the JVA/Consortium that submits the bid so as to commit fully all partners to the joint venture. Any bid not accompanied by an acceptable bid security as indicated for JV/Consortium shall be rejected by the Employer as non responsive.
	19.4	If a bid security is specified pursuant to Sub-Clause 19.1 ITB , any bid not accompanied by an acceptable bid security shall be rejected by the Employer as non responsive.
	19.5	If a bid security is specified pursuant to Sub-Clause 19.1 ITB , the bid security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's furnishing of the performance security pursuant to Clause 41 ITB .
	19.6	The bid security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the Contract and furnished the required performance security.
	19.7	The bid security may be forfeited:
		 (a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Letter of Technical Bid except as provided in Clause 24 ITB or (b) If a Bidder increases his quoted prices during the period of bid validity or its extended period, if any.



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	(c) If during the bid process, a bidder indulges in any such deliberate act as would jeopardize or unnecessarily delay the process of bid evaluation and finalization.		
	(d) If, during the bid process, any information is found false / fraudulent / mala-fide, and then AUTHORITY shall reject the bid and, if necessary, initiate action as per applicable provisions.		
	(e) If the bidder does not agree to correct arithmetic error.		
	(f) if the successful Bidder fails to:		
	(i) sign the Contract in accordance with Clause 40 ITB; or		
	(ii) Furnish required performance security in accordance with Clause 41 ITB .		
	The decision of AUTHORITY regarding forfeiture of the EMD / Bid security shall be final and binding upon bidders.		
	19.8 Exemption regarding EMD/SD/PBG granted to MSMEs is not applicable for Civil/ Electrical/ Infrastructure Contracts as per Government Order G. O. (P) No.1/2021/FIN. dated, Thiruvananthapuram, 03.01.2021.		
20. Format and Signing of Bid	20.1 The entire Bid shall be submitted strictly as per the format specified in this RFP / Bidding document. Bids with any deviation from the prescribed format are liable for rejection. The Bidder shall prepare the documents comprising the bid as described in BDS.		
	20.2 The bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the BDS and shall be attached to the bid. The name and position held by each person signing		



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		the authorization must be typed or printed below the signature. All pages of the bid where entries or amendments have been made shall be signed or initialed by the person signing the bid.
	20.3	The bid shall contain no alterations, omissions, or additions, unless such corrections are initialed by the person or persons signing the bid.
	20.4	A bid submitted by a JVA / Consortium shall comply with the following requirements:
		(a) be signed by all partners so as to be legally binding on all partners and
		(b) Include the Representatives's authorization consisting of a power of attorney signed by those legally authorized to sign on behalf of the JVA/Consortium.
	20.5	Any inter-lineation, erasures, or overwriting shall be valid only if they are signed or initialed by the authorized person signing the bid.
		D. Submission of Bids
21. Submission of Bids	21.1	Complete bidding process will be online (e-Tendering) in two covers system. Submission of bids shall be in accordance with the instructions given in the Bid Data Sheet (BDS) .
22. Deadline for Submission of Bids	22.1	Bids must be received by the Employer at the address and no later than the date and time indicated in the BDS . When so specified in the BDS , bidders shall submit their bids electronically. Bidders submitting bids electronically shall follow the electronic bid submission procedures specified in the BDS .



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	22.2	The Employer may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Documents in accordance with Sub-Clause 11 ITB , in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.	
23. Late Bids	23.1	Bids received after the due date and the specified time (including the extended period if any) for any reason whatsoever, shall not be considered and shall not be opened in the e-Tendering system. The Employer shall not consider any bid that arrives after the deadline for submission of bids, in accordance with Clause 22 ITB. Any bid received by the Employer after the deadline for submission of bids shall be rejected and returned unopened to the Bidder. The software of e-tendering system will not allow the Bidder to upload the documents after expiration of the stipulated date & time of Bid submission. The Bidder shall refer the server time, which will be displayed in the e-tender website www.etenders.kerala.gov.in. Employer will not be responsible for non-receipt of bids on the stipulated date & time prescribed in Clause 22.1 ITB, due to Internet Problems, improper uploading or any other related problems. In case of connectivity problems, Bidder may contact Helpdesk of the e-tender service provider and may also draw the attention of tender inviting authority.	
24. Withdrawal, Substitution, and Modification of Bids	24.1	No bid shall be withdrawn, substituted, or modified in the interval between the deadline for submission of bids and the expiration of the validity period specified by the Bidder on the Letter of Technical Bid or any extension thereof. Entire Bid security / EMD shall be forfeited if any of the Bidders withdraw their bid during the validity period.	
	E. Bid Opening And Evaluation		



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25. Bid Opening- Technical Bids	25.1	The Employer shall open the Technical bids in public, in the presence of Bidders' designated representatives and anyone who choose to attend, and at the address, date and time specified in the BDS . Electronic bid opening will be carried out first. The bidders' representatives who are present during Technical bid opening shall sign a register evidencing their attendance. The prescribed original documents specified and submitted in hard copy will be opened and signed by authorized representatives of Employer.	
	25.2	The Employer shall announce the Bidders' names at the opening of the Technical bid as well as whether the Bid Security (EMD) is contained in the Bidder's Technical Bid. The Financial Bid of all Proposals shall remain unopened until Technical bids are evaluated for fulfillment of qualification criteria until financial bids are opened in accordance with Clause 26 ITB. No bid shall be rejected at bid- opening except for late bids pursuant to Clause 23 ITB.	
	25.3	Only bids that are opened and read out at bid opening shall be considered further.	
	25.4	The Employer shall prepare minutes of the bid opening, including the information disclosed to those present in accordance with Sub-Clause 25.2 ITB .	
	25.5	Bids not opened and read out at bid opening shall not be considered further for evaluation, irrespective of the circumstances.	
26. Bid Opening- Financical Bids	26.1	After the evaluation of the Technical Bids, the Employer shall determine a date and time on when the Employer shall open the Financial Bids of the Substantially Responsive Bidders and shall,	



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		(a) notify the Bidders of the date and time of the opening of the Financial Bids online;	
		(b) carry out the opening of the Financial Bids of the Qualified Bidders and the announcement of the Qualified Bidders' names and quoted prices in the presence of the Bidder's representatives who choose to attend the Financial bid opening; and	
		(c) Financial Bid of the Bidders who failed to comply with the technical requirements will remain unopened.	
	26.2	Bidders' representatives who attend the opening of the Financial Bids shall sign a register to record their attendance.	
	26.3	The Employer shall prepare minutes of the bid opening, including the information disclosed to those present in accordance with Sub-Clause	
27. Process to be Confidential	27.1	Information relating to the examination, clarification, evaluation, and comparison of bids, and recommendations for the award of a contract, shall not be disclosed to bidders or any other persons not officially concerned with such process until the award to the successful bidder has been announced.	
	27.2	Any attempt by a Bidder to influence the Employer in the evaluation of the bids or Contract award decisions may result in the rejection of its bid. Information on Contract award will be published on e-tender portal.	
28. Clarification of Bids and Contacting the Employer	28.1	To assist in the examination, evaluation, and comparison of the bids, and qualification of the Bidders, the Employer may, at its discretion, ask any Bidder for a clarification of its bid. Any clarification submitted by a Bidder that is not in	



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			response to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing. No change in the prices or substance of the bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the bids, in accordance with Clause 31 ITB.
		28.2	If a Bidder does not provide clarifications of its bid by the date and time set in the Employer's request for clarification, its bid may be rejected.
		28.3	Notwithstanding Sub-Clause 27.2 ITB , from the time of bid opening to the time of Contract award, if any Bidder wishes to contact the Employer on any matter related to the bidding process, it may do so in writing.
29.	Deviations, Reservations, and Omissions	29.1	During the evaluation of bids, the following definitions apply:
		((a) "Deviation" is a departure from the requirements specified in the Bidding Document;
		((b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Document; and
		((c) "Omission" is the failure to submit part, or all of the information or documentation required in the Bidding Document.
30.	Determination of Responsiveness	30.1	The Employer's determination of a bid's responsiveness is to be based on the contents of the bid itself, as defined in Clause 13 ITB . Further the general conditions leading to disqualification of the Bid are as specified in the BDS .



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	30.2	A substantially responsive bid is one that meets the requirements of the Bidding Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that,
	((a) if accepted, would
		(i) affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or
		(ii) limit in any substantial way, inconsistent with the Bidding Document, the Employer's rights or the Bidder's obligations under the proposed Contract; or
	((b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive bids.
	30.3	The Employer shall examine the technical aspects of the bid submitted in accordance with Clause 13 ITB. Technical Proposal, in particular, to confirm that all requirements of Section V Employer's requirements / Works Requirements have been met without any material deviation, reservation or omission.
	30.4	If a bid is not substantially responsive to the requirements of the Bidding Document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.
31. Nonmaterial Nonconformities	31.1	Provided that a bid is substantially responsive, the Employer may waive any non-conformities in the bid that do not constitute a material deviation, reservation or omission.



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	31.2	Provided that a bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the price of the bid. Failure of the Bidder to comply with the request may result in the rejection of its bid.	
32. Evaluation of Technical bids	32.1	prior to th	loyer will evaluate the Technical bids received the Submission Deadline and opened in accordance that we will be accordance with the following prior to the detailed evaluation of bids, the Employer will determine whether each Technical bid (a) meets the eligibility criteria stipulated in the RFP/ bidding document (b) has been properly signed; (c) is accompanied by the required securities;
		(b)	the Employer will examine each Technical bid submitted to determine whether the Technical bid is complete and Substantially Responsive to the Biding Documents;
		(c)	the Employer will evaluate the Technical bids based on the evaluation criteria provided in the Bidding Data Sheet. The use of other criteria shall not be permitted. The Employer reserves the right to waive minor deviations in the evaluation criteria if they do not materially affect the successful implementation of the contract. The Technical bids that have met the evaluation criteria will be considered as Substantially



	Sub-	COCHIN SMART MISSION LIMITED		
<u>Clause</u>		<u>Clause</u> <u>Provision</u>		
		Responsive Bids.		
	32.2	A substantially responsive bid is one that conforms to all the terms, conditions, and specifications of the bidding documents without material deviation or reservation. A material deviation or reservation is one (a) that affects in any substantial way the scope, quality, or performance of the Works and Services; (b) that limits in any substantial way, inconsistent with the bidding documents, the Employer's rights or the bidder's obligations under the contract; or (c) whose rectification would affect unfairly the competitive position of other bidders presenting substantially responsive bids.		
	32.3	If a bid is not substantially responsive, it will not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation and will not be considered for evaluation further.		
	32.4	Only Technical bids that pass all evaluation criteria shall be determined as "substantially responsive bids" and be considered for financial evaluation.		
	32.5	Technical bids failing to meet the evaluation criteria shall not be considered further in the evaluation process and their financial proposals shall be returned unopened		
33. Correction of Arithmetical Errors	33.1	The Employer shall open the Financial Bids of the Substantially Responsive Bidders ie. technically qualified bids, in accordance with Clause 26 ITB . The Employer shall examine each such Financial Bid to determine whether it is complete and responsive to the Bidding Documents.		
	33.2	Provided that the bid is substantially responsive, the Employer shall correct arithmetical errors on the following basis:		



<u>Clause</u>	<u>Sub-</u> <u>Clause</u>	<u>ovision</u>	
		the total price for the li multiplying the unit price as quoted shall prevail corrected, unless in the o is an obvious misplaceme	between the unit price and ne item that is obtained by and quantity, the unit price and the total price shall be pinion of the Employer there ent of the decimal point in the che total price as quoted shall a shall be corrected;
			e rates in figures, in the Bill of te in words will be auto
			total corresponding to the of subtotals, the subtotals l shall be corrected; and
		Once the Bidder key in the rates in figures, in the Bill of quantities provided, the system will automatically calculate the amount of that item as well as the total Bid value.	
		the amount in words sha expressed in words is re	between words and figures, ll prevail, unless the amount lated to an arithmetic error, unt in figures shall prevail ove.
	33.3	ployer in accordance with a rection of errors and, with the last of the considered as binding the corrected as a surface of th	id will be adjusted by the the above procedure for the ne concurrence of the bidder, upon the bidder. If the bidder amount of bid, its bid will be ay be forfeited in accordance
34. Evaluation of Bids	34.1	÷ •	criteria and methodologies ther evaluation criteria or ted.
	34.2	• •	and compare only the bids y responsive in accordance



		COCHIN SMART MISSION LIMITED
<u>Clause</u>	<u>Sub-</u> <u>Clause</u>	<u>Provision</u>
	34.3	To evaluate a bid, the Employer shall consider the following:
		(a) the bid price, excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities;
		(b) making correction of arithmetic errors in accordance with Sub-Clause 33.1 ITB ;
		(c) the evaluation factors indicated in BDS and Section III, Qualification Criteria;
	34.4	The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in bid evaluation.
	34.5	If the bid, which results in the lowest Evaluated Bid Price, is seriously unbalanced in the opinion of the Employer, the Employer may require the Bidder to produce detailed price analyses for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, taking into consideration the schedule of estimated Contract payments, the Employer may require that the amount of the performance security be increased in the form of additional performance security at the expense of the Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract.
35. Comparison of Bids	35.1	The Employer shall compare all substantially responsive bids in accordance with Clause 34 ITB to determine the lowest evaluated bid.



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<u>Clause</u>	<u>Sub-</u> <u>Clause</u>	<u>Provision</u>
36. Qualification of the Bidder	36.1 The Employer shall determine to its satisfaction whethe the Bidder that is selected as having submitted the lowes evaluated and substantially responsive bid either meets th qualifying criteria specified in Section III Qualification Criteria.	
	36.2	The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to Clause 13 ITB .
	36.3	An affirmative determination shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the bid, in which event the Employer shall proceed to the next lowest evaluated bid to make a similar determination of that Bidder's qualifications to perform satisfactorily.
37. Employer's Right to Accept Any Bid, and to Reject Any or All Bids	37.1.	The AUTHORITY / Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for AUTHORITY's action.



COCHIN SMART MISSION LIMITED		
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	37.2.	In case of annulment, all bids submitted and specifically, bid securities, shall be promptly returned to the Bidders.
	37.3.	Non-Exclusive: AUTHORITY reserves the rights to avail the similar services from other Service Providers/ others during the Contract period.
	37.4.	Failure of the successful bidder to agree with the Terms & Conditions of the Bidding document / RFP shall constitute sufficient grounds for the annulment of the award, in which event AUTHORITY may invite the next best bidder for negotiations or may call for fresh Bidding document / RFP.
		F. Award of Contract
38. Award Criteria	38.1	Subject to Sub-Clause 37.1 ITB , the Employer shall award the Contract to the Bidder whose offer has been determined to be the lowest evaluated bid inclusive of all taxes (except GST) etc and is substantially responsive to the Bidding Document pursuant to Clause 34 ITB , provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.
	38.2	All bidders are required to submit an undertaking for award criteria in their letter head duly signed by the authorized signatory of Bidder, along with the technical proposal.
39. Notification of Award	39.1	Prior to the expiration of the period of bid validity, the Employer shall notify the successful Bidder, in writing, that its bid has been accepted. The notification letter (hereinafter and in the Conditions of Contract and Contract Forms called the "Letter of Acceptance") shall specify the sum that the Employer will pay the Contractor in consideration of the execution and completion of the Works (hereinafter and in the Conditions of Contract and Contract Forms called "the Contract Price") and the requirement for the Contractor to remedy any defects therein as prescribed



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		by the Contract.
	39.2	Until a formal contract is prepared and executed, the notification of award shall constitute a binding Contract.
	39.3	Upon the successful bidder's furnishing of the performance security pursuant to Clause 41 ITB , the Employer will promptly notify on the website of Authority / e-tender website mentioned in Bid data sheet , the name of the winning bidder to each unsuccessful bidder and will discharge the bid security of the unsuccessful bidders, pursuant to Clause 19 ITB .
	39.4	The Employer shall publish in Authority / e-tender website mentioned in Bid data sheet of the results of the bidding and shall publish the results identifying the bid and the following information:
		(i) name of each Bidder who submitted a Bid;
		(ii) bid prices as read out at Bid Opening;
		(iii) name and evaluated prices of each Bid that was evaluated;
		(iv) name of bidders whose bids were rejected and the reasons for their rejection; and
		(v) Name of the successful Bidder, and the Price it offered, as well as the duration and summary scope of the contract awarded.
	39.5	The Employer shall promptly respond in writing to any unsuccessful Bidder who, after notification of award in accordance with Sub-clause 39.1 ITB , requests in writing the grounds on which its bid was not selected.



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40. Signing of Contract	40.1	At the same time that the Employer notifies the successful bidder that its bid has been accepted, promptly upon notification, the Employer shall send the successful Bidder the Contract Agreement in the form provided in the bidding documents, incorporating all agreements between the parties.
	40.2	Within twenty-eight (28) days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Employer together with the required performance security including additional performance security towards unbalanced rates quoted by the bidder.
	40.3	Upon fulfillment of Sub-Clause 40.2 , the Employer will promptly notify the other bidders that their bids have been unsuccessful, and their bid security will be returned as promptly as possible, in accordance with Clause 19 ITB .
41. Performance Security	41.1	Within twenty-eight (28) days of the receipt of notification of award / Letter of Acceptance from the Employer, the successful Bidder shall furnish to the Employer the performance security in the form stipulated in the Bid data sheet and in accordance with the General Conditions of Contract, using for that purpose the Performance Security Form included in Section VIII, Annex to the Special Conditions - Contract Forms.
	41.2	If it is stipulated in the Bid Data Sheet (BDS) that the performance security is to be provided by the successful bidder in the form of a bank guarantee, it shall be issued either (a) at the bidder's option, by a bank located in the country of the Employer



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	41.3 Failure of the successful Bidder to submit the above-mentioned Performance Security to comply with the requirements of Clauses 40 or 41 ITB or sign the Contract shall constitute a breach of Contract and constitute sufficient grounds for the annulment of the award and forfeiture of the bid security. In that event the Employer may award the Contract to the next lowest evaluated Bidder whose offer is substantially responsive and is determined by the Employer to be qualified to perform the Contract satisfactorily.
	41.4 As per Government orders, Additional Performance Guarantee will be required for the Percentage Rate Contracts, if the quoted amount falls below 10% of Estimated PAC. For Item Rate Contracts Additional Performance Guarantee is required if the rate quoted by the bidder for an item of work is 10% below the Estimated cost of the respective item.
	(i) For Percentage Rate Contracts - if the quoted amount of lowest bidder (L1) is X% below Estimated PAC (where X lies above 10%), the Additional Performance Guarantee amount shall be (X-10) % of Estimated PAC.
	(ii) For Item Rate Contracts – If the rate quoted by the bidder for an item of work is X% below estimate cost (where X lies above 10%), the Additional Performance Guarantee for that item of work is equal to (X-10)% of the estimated amount for that item of work. The total of Additional Performance Guarantee for the whole work is the total of individual Additional Performance Guarantee for each item of work calculated as above.
	However, the AUTHORITY further reserves the right to decide on the requirement of the Additional Performance Guarantee as above and/or the rate at which it has to be executed.



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42.	Disputes Resolution Method	42.1	The disputes resolution method (i.e., the Disputes Resolution Board or the Disputes Resolution Expert) is indicated in the Bid Data Sheet. The Employer and the successful bidder will select Disputes Resolution Board members or the Disputes Resolution Expert, as the case may be, according to the procedure set forth in the Conditions of Contract.
43.	Fraud and Corruption	43.1 (a)	The Employer requires that beneficiaries as well as bidders, suppliers, and contractors and their subcontractors under this contract, observe the highest standard of ethics during the procurement and execution of such contracts. ¹ In pursuance of this policy, the Employer: defines, for the purposes of this provision, the terms set forth below as follows:
			(i) "corrupt practice" means the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
			(ii) "fraudulent practice" ² means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
			(iii) "collusive practice" ³ means an arrangement between two or more parties designed to achieve

¹ In this context, any action taken by a bidder, supplier, contractor, or a sub-contractor to influence the procurement process or contract execution for undue advantage is improper.

² a "party" refers to a public official; the terms "benefit" and "obligation" relate to the procurement process or contract execution; and the "act or omission" is intended to influence the procurement process or contract execution.

³ "parties" refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non competitive levels.



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		an improper purpose, including to influence improperly the actions of another party;
		(iv) "coercive practice" means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party.
		(v)"obstructive practice" is
		(aa) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede Authority's investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or
		(bb) acts intended to materially impede the exercise of the Authority's inspection and audit rights provided for under sub-clause below.
	(b)	will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question;
	(c)	will sanction a firm or individual, including declaring them ineligible, either indefinitely or for a stated period of time, to be awarded if it at any time determines that

 $^{^{\}rm 4}\,{\rm a}$ "party" refers to a participant in the procurement process or contract execution.

Section I. Instructions to bidders

RFP FOR "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"



<u>Clause</u>	Sub- Clause Provision
	they have, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for, or in executing, the contract.



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Section II. Bid Data Sheet

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Section II. Bid Data Sheet

	A. General
ITB 1.1	The number of the Notice inviting Tender (NIT) / Invitation for Bids (IFB) is : CSML/ENERGY/RFP/003-02 Date: 25/08/2023
ITB 1.1	The Employer / Procuring Entity is: Chief Executive Officer. Cochin Smart Mission Limited (CSML) Kochi, Kerala
ITB 1.1	The name of the Work is: "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)" The identification number of the Bid is: CSML/ENERGY/RFP/003-02 Date: 25/08/2023
ITB 1.1	Broad Summary of the Works, Services to be provided are indicated below: However, for detailed scope of work refer Section V Employer's requirements / Works requirements: The works and services to be provided for the "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)" broadly include Detailed investigation and surveys of project location, (i) Minor civil works (ii) Dismantling of existing Streetlights (iii) Installation of LED Streetlights (iv) Installation of Group control panels (v) Cabling and Earthing
	(vi) Implementation of software for smart control metering & monitor & integration to IC4 and KSEB
ITB 1.1(a)	Investigations, Survey, and Drawings: The scope of work for Contractor includes carrying out detailed surveys, setting out and all other investigations as detailed in Section V, under the Scope of Contract. The Contractor will undertake detailed survey of requirements, prepare working drawings /shop drawings for all the components. Only after the Approval of the Good For Construction drawings approved by the Engineer-In-Charge, works shall commence.

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ITB 1.1(d)	(i) <u>Deleted</u>
	(ii) Deleted (iii) Deleted
ITB 1.2	Period during which works, and services are to be provided: (A) Execution Phase: 7 months (including monsoon period) from the date of Contract Agreement/Notice to proceed. The work shall be taken up in phases and sections. It includes: (i). Carrying out comprehensive investigations, survey, preparation, and submission of working drawings (ii). Supply, Execution, installation, testing, and commissioning of all Smart LED Streetlights and integration to IC4 & KSEB: (B) Defects liability period: 2 years starting immediately after issuing the initial completion certificate. (C) Operation and Maintenance: 5 years starting immediately after issuing the initial completion certificate. (D) Warranty: 5 years warranty for entire installed Smart LED Streetlight system and 7 years warranty for LED lights and fixtures and both the warranties are starting immediately after commissioning of the works and issuing the initial completion certificate.
ITB 2.1	The Authority / Implementing agency / Department is: Cochin Smart Mission Limited (CSML)
ITB 2.1	The name of the Project is: PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL).
ITB 3	This bidding is open to interested Bidders satisfying the eligibility criteria indicated in the Qualification Criteria.
ITB 7.2	RFP Document Fee / Bid fee / Tender fee: Rs. 17,700 (Rupees Seventeen Thousand Seven Hundred Only) inclusive of GST For submission of bid, shall be paid through: online e-Tendering Payment Gateway only (https://etenders.kerala.gov.in).

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B. Bidding Documents			
ITB 10.1	For <u>clarification purposes</u> only, the Employer's address is		
	Attention:	Chief Executive Officer, Cochin Smart Mission Limited (CSML),	
	Street Address:	JLN Metro Station	
	Floor / Room number:	4th Floor,	
	City:	Kaloor, Kochi	
	ZIP Code:	682 017	
	Country:	India	
	Electronic mail	info@csml.co.in	
	address: Clarification shall be sent	thorough e-mail indicated above.	
ITB 10.2	Copies of the Pre-bid minu Tendering Portal: www.e	utes (response) and addendum will be published on e- tenders.kerala.gov.in.	
ITB 10.3	A Pre-Bid meeting will tak	te place at the following date, time, and place:	
	Date and time: Please Ref	fer NIT	
	Place: CSML Conference I	<u>Hall</u>	
		Office of the Chief Executive Officer, Cochin Smart Mission Limited (CSML) 4th Floor, JLN Stadium Metro Station,	
		Kaloor, Kochi - 682 017, India.	
	C. P	reparation of Bids	
ITB 12.1	The language of the bid is:	<u>English</u>	
ITB 13.1	The Bidder shall submit w	rith its bid the following additional documents: Nil	

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ITB 15.1	Alternative Bids will not be permitted.
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ITB 15.2	Alternative times for completion will not be permitted.
ITB 15.4	Alternative technical solutions shall not be permitted
ITB 16.3	Add the following note at the end of ITB Clause 16.3:
	"Note (only if applicable): Bidders may like to ascertain availability of excise/custom duty exemption. They are solely responsible for obtaining such benefits which they have considered in their bid and in case of failure to receive such benefits for reasons whatsoever, the employer will not compensate the bidder (contractor). The bidder shall furnish along with his bid a declaration to this effect in the Declaration Format provided in Section IV Bidding Forms of the bidding documents. Where the bidder has quoted taking into account such benefits, he must give all information required for issue of certificates in terms of the Government of India Central Excise Notification and Customs Notification as per form stipulated. In case the bidder has not provided the required information or has indicated to be furnished later on in the Declaration Format, the same shall be construed that the goods / construction equipment for which certificate is required is Nil.
	To the extent the employer determines the quantity indicated therein are reasonable keeping in view the bill of quantities, construction programme and methodology, the certificates will be issued, and no subsequent changes will be permitted. The certificate will be issued within 60 days of signing of the contract for material pertaining to BOQ quantities, equipment and machinery. In case of materials pertaining to Variation items and quantities the certificate shall be issued only on request from the contractor when in need and duly certified by the Engineer and no subsequent charges will be permitted.
	If the bidder has considered the customs / excise duty exemption for materials / construction equipment to be bought for the work, the bidder shall confirm and certify that the Employer will not be required to undertake any responsibilities of the Government of India Scheme or the said exemptions being available during the contract execution, except issuing the required certificate.
	The bids which do not conform to the above provision or any condition by the bidder which makes the bid subject to availability of customs / excise duty exemption for materials / construction equipment or compensation on

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	withdrawal of or any variation to the said exemptions will be treated as non-responsive and rejected. Any delay in procurement of the construction equipment / machinery / goods as a result of the above shall not be entertained as reason for granting any extension of time".		
ITB 16.4	The prices quoted by the Bidder shall not be subject to Price Adjustment		
ITB 17.1	The currency(ies) of the bid and the payment currency(ies) shall be as described below:		
	A. Bidders to quote entirely in local currency: The unit rates and the prices shall be quoted by the Bidder in the Bill of Quantities, entirely in Indian Rupees , the name of the currency of the Employer's country, and further referred to as "the local currency".		
	в. Payment currency (ies) shall be in <u>Indian Rupees.</u>		
ITB 18.1	The bid validity period shall be <u>180 days.</u> [from the latest date fixed for the Technical Bid opening in accordance with Clause 22 ITB]		
ITB 19.1	A bid security shall be required.		
	If a bid security in the form of Bank guarantee issued by a scheduled commercial bank in India drawn in favour of Chief Executive Officer, CSML, payable at Kochi shall be required, the amount and currency of the bid security shall be INR 5 Lakh, Indian Rupees.		
ITB 19.2	Acceptable Bid securities / Earnest Money Deposit (EMD) to be provided are as follows:		
	№ In the form of: Bank Guarantee or DD of equivalent value		
	Issued by: a scheduled commercial bank in India drawn in favour of Chief Executive Officer, Cochin Smart Mission Limited, Payable at Kochi.		
	♦ Validity of Bid security: In case of bid security being provided in the form of Bank guarantee, it shall originally be compulsorily valid for <u>Sixty</u> (60) days beyond the original validity period (which starts from latest date of Technical Bid opening) of the bid, ie. Minimum 180 days + 60 days. Otherwise bids are likely to be rejected.		

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	Format of the Bid security is provided in Section IV Bidding Forms of the bidding documents. Refer "APPENDIX-1 (For e-tender)" for important guidelines on e-tender procedure. Employers Bank details for transmitting guarantee through SFMS Gateway to Authority's Bank Note: For more details on payment procedures refer help wizard and FAQ for e-payments available on the e-tender website www.etenders.kerala.gov.in.	
ITB 19.3	Bank: Account name: Account Number: IFSC Code: Branch: Swift Code: The bid security of a Joint Venture/Conlead bidder of JVA/Consortium that supartners to the joint venture. Any bid	Axis Bank Limited COCHIN SMART MISSION LIMITED 918020079716734 UTIB0000081 Kochi Branch AXISINBB081 sortium Bidder shall be: in the name of ubmits the bid so as to commit fully all d not accompanied by an acceptable bid am shall be rejected by the Employer as
ITB 19.5	Add the following at the end of this Clause: If bid security is received in the form of BG, then it will be returned in the same form.	
ITB 20.1	The number of hard copies of bid is: Nil as Not Applicable. Bids shall be submitted: online only through Online e-Tendering website (https://etenders.kerala.gov.in) only-except for the original hard copy of Bid security, Power of attorney, Joint Venture/Consortium Agreement, Letter of Bid as indicated below: Bidders are required to submit offer in Two covers, namely	

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☐ Cover –I: comprising Tender Fee, Bid security, Power of Attorney,
Joint Venture Agreement, Letter of Technical Bid, Qualification
fulfilment supporting documents and Technical Bid
And
☐ Cover -II: comprising Price Rid / Financial Rid.

Details are as follows:

(A) Online Submission [through e-tender website:

http://etenders.kerala.gov.in]

<u>Cover –I (Tender Fee, Bid security, Power of Attorney, Joint Venture Agreement, Qualification fulfilment supporting documents and Technical Bid)</u>

- (i) Tender Fee To be paid online at http://etenders.kerala.gov.in only.
- (ii) Bid Security / EMD To be paid in the form of Bank guarantee issued by a scheduled commercial bank in India in the format prescribed in Bid document or DD of equivalent value issued by a scheduled commercial bank in India drawn in favour of Chief Executive Officer, CSML, payable at Kochi. The scanned copy of Bid security / (EMD) to be uploaded in the e-tender website (i.e. www. etenders.kerala.gov.in). Also, Power of Attorney (PoA) and Joint venture agreement (in case of JV) to be scanned and uploaded in the e-tender website
- **(iii)Prequalification including Technical Bid** Bidders are requested to upload the scanned copies of the following details along with documents indicated in NIT/ RFP/ Bidding document/ latest Corrigendum "online".
 - (a) The scanned copy of the NIT/ RFP/ Bidding document/ latest Corrigendum including Prebid Minutes and Addendum (if any) duly signed and stamped in all pages.
 - (b) Notorized, Scanned copies of Prequalification / Technical Qualification supporting documents, signed scanned copies of filled details in specified various forms, Letter of Technical Bid, including any / all other requirement specified in RFP / bidding document forming Technical Bid
 - (c) All documents signed and scanned including GCC, SCC, Annexures to GCC, SCC as detailed in the Bidding document,

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Cover - II (Price Bid / Financial Bid)

(iv)Duly filled and completed Price Bid / Financial Bid

- (a) Bidders are requested to quote rates in the Finance Bid (BOQ) ie. Bill of Quantities (BOQ) file provided (in .xls format) only.
- (b) Price bid to be uploaded only in e-tender website: http://etenders.kerala.gov.in
- (c) Bidder shall not quote/mention rates anywhere else in the tender other than BOQ
- (d) In the Bid submitted by the bidder, if the prices or price bid are disclosed any-where-else other than in the BOQ, the Bid / tender would be liable for disqualification and would summarily be rejected

(B) Hard copy [Originals to be submitted at Employer's address]

In addition, however only following hard copies to be submitted:

Original Bid security / EMD and original power of attorney (or duly notarized copy) mentioned in NIT/ RFP/ Bidding document/ latest Corrigendum, Joint venture agreement (in case of JV), Letter of Technical Bid are to be submitted (in a sealed envelope mentioning name of work) in the Tender Box at the Chief Executive Officer, Cochin Smart Mission Limited (CSML), 4th Floor, JLN Stadium Metro Station, Kaloor, Kochi - 682 017, India before due date and time for submissions.

Preparation of Bid:

- (i) The Bidder shall prepare the complete bid comprising of documents indicated in Clause 13 & 14 ITB, along with scanned copies of requisite certificates those are mentioned in Section I, Section II & Section IV of the bid document and scanned copy of Bid Security in case it is provided in the form of unconditional bank guarantee
- (ii) As specifically indicated the documentary evidence to be uploaded, those are indicated in **Section I & III** shall be filled & signed. The various forms indicated in **Section IV** shall be downloaded, filled, signed (if specifically mentioned) scanned & uploaded to the e- procurement website **www.etenders.kerala.gov.in**. Also, tenderer should take a printout of the declaration letter provided in the e- procurement website, on company letter head and should sign, stamp and upload the same to the e-procurement website

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	(iii) A bid submitted by a JVA/Consortium shall comply with the following requirements				
	 a) be signed (wherever specifically indicated) & uploaded to the etender / e-GP website, so as to be legally binding on all partners and b) Include the Representatives's authorization consisting of a power of attorney signed by those legally authorized to sign on behalf of the JVA/Consortium & be uploaded to the e-GP website www.etenders.kerala.gov.in. 				
ITB 20.2	The written confirmation of authorization to sign on behalf of the Bidder shall consist of: written power of attorney authorizing the signatory of the Bid. Board resolution copy of the Company on authorization, shall also be furnished.				
	D. Submission of Bids				
ITB 22.1	For bid submission purposes only, the Employer's address is:				
	Online bid submission to be made only through http://etenders.kerala.gov.in The deadline for online bid submission is:				
	Date & Time: Please refer NIT				

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For hard copy submission of-Original Bid security / EMD and original power of attorney

Attention:	Chief Executive Officer,
	Cochin Smart Mission Limited (CSML),
Street Address:	JLN Metro Station
Floor/Room number:	4th Floor,
City:	Kaloor, Kochi
ZIP Code:	682 017
Country:	India

The deadline for submission of original EMD and Power of Attorney (Hard copy) is:

Date & Time: Please refer NIT

Bid submission procedure:

Bidders shall submit their bids electronically.

Bidders submitting bids electronically shall follow the electronic bid submission procedures specified below:

- 1. URL of the Website for bid submission through e-tender & Address for submission of Hard copy of Bid security (only if bid security is provided in the form of unconditional bank guarantee), power of attorney and Joint Venture/Consortium agreement (In case of JV/Consortium) are as follows:
 - (i). <u>www.etenders.kerala.gov.in</u> (ii).

Chief Executive Officer Cochin Smart Mission Limited (CSML), 4th Floor, JLN Metro Station, Kaloor Kochi 682 017 Kerala, India.

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2. The details related to submission of Bids, downloading / uploading of documents or other details are available online in the help wizard, & FAQ of above website.

The Bids should be uploaded only through e-tender in two cover system.

Bid should contain:

- A. Technical bid consisting of following:
- (1) Completed Qualification Requirement Statement (as mentioned in Section III) with documentary evidences & other documents / information, those are mentioned in different sections in the bid shall be downloaded. The required particulars are to be filled by the bidder scanned & uploaded to the e tender website. The bidder shall down load the forms, fill up the details at the specified location in the same sheet, scan and upload the same file/document on to the e-tender website.

Also,

- (a) Documents comprising Bid in accordance with **Clause 13 ITB**, Letter of Bid & Schedules in accordance with **Clause 14 ITB**, power of attorney and Joint Venture / Consortium agreement (In case of JV/ Consortium), documents comprising the technical proposal documents establishing the qualification of the Bidder in accordance with **Clause 36 ITB**,
- (b) documents fulfilling Qualification criteria in accordance with **Section III**
- (c) In accordance with **Section IV Bidding forms-** shall be downloaded, filled with required details, signed, scanned & uploaded to the e-tender website www.etenders.kerala.gov.in on or before the time and date indicated in NIT /**Section I ITB.**
- (II) **Bid security:** For Bid security in the form of unconditional bank guarantee (if provided in the form of BG) or DD of equivalent value, the details like reference number, date, name of the Bank and

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drawn in favour are to be registered on the e-tender website www.etenders.kerala.gov.in

- (III) Power of Attorney: It shall be scanned & uploaded to the e-tender website <u>www.etenders.kerala.gov.in</u>
- (IV) In case of Joint Venture/Consortium, Joint venture agreement/Consortium agreement shall be signed, scanned & uploaded to the e-tender website www.etenders.kerala.gov.in

Note: For more details on payment procedures refer FAQ for e-payments available on the e-tender website www.etenders.kerala.gov.in

The above documents along with notarized copies of documentary evidences indicated in Section—I ITB, & Section-III Eligibility & Qualification Criteria & Section- IV Bidding forms shall be scanned and uploaded to the website compulsorily, failing which tender will be rejected in view of incomplete bid document

B. Price Bid / Financial Bid consisting of following: The Price Schedule / Bill Of Quantities with the file in .xls Microsoft Excel format.

The bidder shall down load the Bill Of Quantities file, key in the rates (in figures only) in the same schedule and upload the same file on to the website on or before the stipulated time and date of submission of Bid.

In case, Bid security is provided in the form of unconditional bank guarantee/ DD of equivalent value, scanned copy of the same is to be uploaded to the e- tender website www.etenders.kerala.gov.in and the original unconditional bank guarantee/DD should be dropped in the tender box (giving details on the name of work to which Bid is submitted) placed at office of the Chief Executive Officer, CSML Kochi, as indicated in the Bid Data Sheet before the last date & time for such submission. In case of failure of the Bidder to submit the same within stipulated time, or failure of confirmation of transfer of Bid security in case of e payment, their Bid will be rejected.'

Upon submission of bids, Unique Identification Number will be automatically generated by the server with timestamp and sent to the

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account of the bidder as an acknowledgement after bidder finally uploads the bids

Also Refer "APPENDIX-E TENDER (For e-tender)" for important guidelines on e-tender procedure / submission.

ACKNOWLEDGEMENT OF UNDERSTANDING OF TERMS

By submitting a Bid, each Bidder shall be deemed to acknowledge that he has carefully read all sections of this Bidding document / RFP, including all forms, schedules, annexure, corrigendum and addendums (if any) hereto, and has fully informed itself as to all existing conditions and limitations.

E. Bid opening and Evaluation

ITB 25.1

The Technical bid opening shall take place at:

Attention:	Office of Chief Executive Officer, Cochin Smart Mission Limited (CSML),
Street Address:	JLN Metro Station
Floor/Room number:	4th Floor, CSML Conference hall
City:	Kaloor, Kochi
ZIP Code:	682 017
Country:	India
Date:	Please refer NIT
Time:	Please refer NIT

In the event of the specified date of Bid opening being declared a holiday for AUTHORITY, the bids shall be opened at the same time and location on the next working day. In addition to that, if their representative of the Bidder remains absent, AUTHORITY will continue with the bid opening process.

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ITB 25	The hard copy submissions of Bid security, power of attorney and Joint Venture/Consortium Agreement (in case of JV/Consortium) shall be initialed by three representatives of the Employer attending Bid opening.	
ITB 25.5	Add the following at the end of this Clause:	
	a) Bid of those bidders who have not submitted "Bid Security" and "Fee of Bid Document submission" shall not be opened.	
	b) Bids of those Bidders who have not submitted valid "Bid Security" and valid "Cost of Bid Documents" shall be considered as non-responsive and liable to be rejected summarily.	
	c) Any Bid not containing the required documents and not fulfilling the qualification criteria indicated in the Bidding Document / Tender document / RFP shall be summarily rejected	
	d) During Bid opening, preliminary scrutiny of the Bid documents shall be made to determine whether they are complete, whether required Bid security / EMD has been furnished, whether the Documents have been properly signed, and whether the bids are generally in order. Bids not conforming to such preliminary requirements shall be prima facie rejected. AUTHORITY has the right to reject the bid after due diligence is done.	
ITB 30.1	Add the following at the end of this Clause:	
	The bid is liable to be disqualified in the following cases or in case bidder fails to meet the bidding requirements as indicated in this Bid document:	
	a) During validity of the bid, or its extended period, if any, the bidder increases its quoted prices	
	b) The bidder's bid is conditional and has deviations from the terms and conditions of RFP	
	c) Bid is received in incomplete form	
	d) Bid is not accompanied by all the requisite documents	
	e) Information submitted in technical bid is found to be misrepresented, incorrect or false, accidentally, unwittingly or	

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- otherwise, at any time during the processing of the contract (no matter at what stage) or during the tenure of the contract including the extension period if any
- f) Financial bid is enclosed with the same document as technical bid.
- g) Bidder tries to influence the bid evaluation process by unlawful/corrupt/fraudulent means at any point of time during the bid process
- h) In case any one party submits multiple bids or if common interests are found in two or more bidders, the bidders are likely to be disqualified, unless additional bids/bidders are withdrawn upon notice immediately
- i) If any of the Lead Bidder is also partner in any other bid, then all the affected bids shall be disqualified

ITB 32.1 (C)

The evaluation criteria mentioned in **Section III: Qualification Criteria**, shall be used for evaluation of the Technical bid of the bidder. The Technical bid not complying with the requirements specified in **Section III**, shall be considered as non-responsive and shall be rejected.

The following criteria shall also be used in evaluation of Technical bids on a pass/fail basis. The Technical bids complying with each of the criteria shall be evaluated as "pass" and the Technical bids which do not comply with any of the criteria shall be evaluated as "fail". The failure in meeting these criteria will not be considered as a cause of rejection of bid;

- (i). Methodology must be clear, provide sound solutions and demonstrate a comprehensive approach for the entire scope of services.
- (ii). Methodology must provide sufficient level of detail to demonstrate a good understanding of local conditions and possible implementation problems specific to Employer.
- (iii). Methodology must include detailed information about the logistics for contract implementation (material management, location, size and numbers of offices and stores)

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Work plan must be comprehensive and must include a detailed time (iv). schedule for each activity under the Services. The concept of transfer of knowledge having innovative aspects and (v). applicable to Employer and training arrangements for Employer's staff must be clearly provided including number and skills of staff to be trained and means of training. The proposed materials and equipment must comply with the requirements and standards specified in the Specifications. (vii). The staffing plan must provide, at minimum, numbers, inputs, positions and responsible tasks of all staff. (viii). Key staff must be competent and experienced and must meet the minimum qualification requirements specified in the Technical Specifications. **ITB 34.2** Add the following at the end of this Clause: (a) Employer / AUTHORITY will constitute a Bid Evaluation Committee (BEC) to evaluate the responses of the bidders **(b)** The BEC constituted by AUTHORITY shall evaluate the responses to the Bidding document / RFP (Technical Bid, and financial Bid) and all supporting documents / documentary evidence. Inability to submit requisite supporting documents / documentary evidence, may lead to rejection. (c) The decision of the BEC in the evaluation of responses to the Bidding document / RFP shall be final. No correspondence shall be entertained outside the process of negotiation/ discussion with the Committee. **(d)** The BEC may ask for meetings with the Bidders to seek clarifications on their proposals and may visit Bidder's client site to validate the credentials/citations claimed by the bidder. **(e)** The BEC reserves the right to reject any or all proposals on the basis of any deviations. **(f)** Each of the responses shall be evaluated as per the criterions and requirements specified in this Bidding document / RFP.

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	(g) Please note that BEC may seek inputs from their professional, external experts in the Bid evaluation process.
	F. Award of Contract
ITB 39.3/ 39.4	website of Authority is: http://csml.co.in/tenders e-tender website is: http://etenders.kerala.gov.in
ITB 41.1	 Standard form and amount of performance security acceptable to the Employer. (i) Unconditional Bank Guarantee for the amount of 3 % of the Accepted Contract Amount (ii) Additional Performance Bank guarantee applicable as per conditions stipulated in Clause 41.4 of Section 1 ITB
ITB 41.4	(i). In the event of the Bidder being unable to carry out works as per the contract for whatever reason Employer / AUTHORITY would invoke the PBG. Notwithstanding and without prejudice to any rights whatsoever of Employer / AUTHORITY under the contract in the matter, the proceeds of the PBG shall be payable to Employer / AUTHORITY as compensation for any loss resulting from the bidder's failure to complete its obligations under the Contract. Employer / AUTHORITY shall notify the Bidder in writing of the exercise of its right to receive such compensation within 14 days, indicating the contractual obligation(s) for which the Bidder is in default. (ii). AUTHORITY shall also be entitled to make recoveries from the bidder's bills, PBG, or from any other amount due to him, the equivalent value of any payment made to him due to inadvertence, error, collusion, misconstruction or misstatement.
ITB 42.1	Disputes Resolution Method: Disputes Resolution Board consisting of <u>3 members</u> . The method and procedure is mentioned in Conditions of Contract .



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APPENDIX-E TENDER (For e-tender)

<u>Important Guidelines to be followed / ensured for e-tender related activities through e- procurement portal of Government of kerala ie. e-GP website www.etenders.kerala.gov.in</u>

- (1) Only online bids are invited. Bid documents including the Bill of Quantities (BoQ) can be downloaded free of cost from the e-Government Procurement (e-GP) Website www.etenders.kerala.gov.in. All bid documents are to be submitted online only (Except for the documents stipulated in BDS) and in the designated manner on the e-GP website. Tenders/ bids shall be accepted only through online mode on the e-GP website and no manual submission of the same shall be entertained except for the documents specifically indicated.
- (2) A bid submission fee / Tender fee indicated in Invitation for bid / Notice inviting tender (NIT) shall be remitted online during the time of bid submission.
- (3) The hard copies of original Bid security, Power of attorney, Joint Venture agreement, Letter of Technical Bid pertaining to Technical proposal shall be submitted subsequently after online submission of bids in a separate cover before the stipulated date and time of submission in addition to online submission. Price Bid shall only be submitted through online.
- (4) The Tender Inviting Authority/Employer shall not be responsible for any failure, malfunction or breakdown of the electronic system while downloading or uploading the documents by the Bidder during the e-procurement process.
- (5) Details required for e-payment (Details of bank account having core banking facility and e-mail address of the bidder) shall be furnished along with the tender.
- (6) Only those bidders having a valid and active registration, on the date of bid submission, shall submit bids online on the e-GP website.
- (7) Ineligible bidder or bidders who do not possess active registration, on the date of bid submission, are strictly advised to refrain themselves from participating in this tender.
- (8) All Bidders are required to register in the e-procurement portal. The Bidder intending to participate in the bid is required to register in the e-tenders portal using his/her Login ID and attach his/her valid Digital Signature Certificate (DSC) to his/her unique Login ID. He/ She has to submit the relevant information as asked for about the firm/contractor. The bidders, who submit their bids for this tender after digitally signing using their Digital Signature Certificate (DSC), accept that they have clearly



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understood and agreed the terms and conditions including all the Forms/ Annexure of this tender.

- (9) The tender document(s) may be downloaded free of cost from the e-Government procurement (e-GP website (www.etenders.kerala.gov.in). However, a bid submission fee, as mentioned in the NIT, is required to be submitted along with the online bid.
- (10) All prospective bidders are expected to see all information regarding submission of bid for the Work published in the e tender website during the period from the date of publication of NIT for the Work and up to the last date and time for submission of bid. Nonobservance of information published in the website shall not be entertained as a reason for any claim or dispute regarding a tender at any stage.
- (11) All bids shall be submitted online on the e-GP website only in the relevant envelope(s)/cover(s), as per the type of tender. No manual submission of bids shall be entertained for the tenders published through e-GP system under any circumstances unless otherwise specified.
- (12) The e-GP system shall not allow submission of bids online after the stipulated date & time. The bidder is advised to submit the bids well before the stipulated date & time to avoid any kind of network issues, traffic congestion, etc. In this regard, the Employer shall not be responsible for any kind of such issues faced by bidder.
- (13) The Bidder is required to login to the e-procurement portal and download the listed documents from the website as mentioned in NIT. He shall save it in his system and undertake the necessary preparatory work off-line and upload the completed bid at his convenience before the closing date and time of submission.
- (14) The bidder is expected to carefully examine all instructions, Bid Data Sheet, Conditions of Contract, Contract Data, Forms, Terms, Technical Specifications/ Works requirements, Bill of Quantities, Annexure and Drawings in the Bid Document. Failure to comply with the requirements of Bid Document shall be at the Bidder's own risk.
- (15) The online bid submitted by the bidder shall comprise the following:
 - (a) Details required for e-payment (Details of bank account having core banking facility and e-mail address of the contractor) in the prescribed format.
 - (b) Online payment of bid submission fee as detailed in the e-tender web site.
 - (c) Bid Security payment details.



- (d) Copy of Registration Certificate duly attested.
- (e) Power of attorney
- (f) Joint Venture /Consortium Agreement (in case of JV/Consortium)
- (g) Technical Bid including qualification fulfillment supporting documents
- (h) Financial bid comprising Priced Bill of Quantities.
- (16) For e tenders, Bidders shall remit the Bid submission fee (Tender Fee) using the online payment options of e-Procurement system only. Bidders are advised to visit the "Downloads" section of e-Procurement website www.etenders.kerala.gov.in for State Bank of India or by using NEFT facility. Bidders opting for NEFT facility of online payment are advised to exercise this option at least 48 hours before the last date of bid submission to ensure that payment towards Bid Submission Fee is credited and a confirmation is reflected in the e-Procurement system. The online NEFT remittance form provided by e-Procurement system for making a NEFT transaction is not a payment confirmation. CSML/NIC/SBI/KSITM shall not be responsible for any kind of delay in payment status confirmation.
- (17) For Bid security, as detailed in BDS, the Bid security in specified form, amount with required validity shall be scanned and uploaded on e-tender website http://www.etenders.kerala.gov.in within the the stipulated date and time for online submission of the Bids.
- (18) The Bidder shall submit their bid online only through the e-GP web site of Kerala (www.etenders.kerela.gov.in) as per the procedure laid down for e-submission as detailed in the web site. For e tenders, the bidders shall download the tender documents including the Bill of Quantity (BoQ) file from the e tendering portal http://www.etenders.kerala.gov.in. The Bidder shall fill up the documents and submit the same online using their Digital Signature Certificate. On successful submission of bids, a system generated receipt can be downloaded by the bidder for future reference. Copies of all certificates and documents shall be uploaded while submitting the tender online. The following scanned copies of documents are to be submitted online as required by the e-tenders portal.
 - (a) Copy of remittance towards bid submission fee and Bid Security deatils.
 - (b) Duly filled and signed copy of bid submission letter / Letter of Technical Bid as per bid document.
 - (c) Duly filled and signed copy of Technical Bid including qualification fulfillment supporting documents as per bid document.
 - (d) Duly filled and signed copy of Appendix to Bid as per bid document.



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- (e) Duly filled and signed copy of requisition for e-payment form as per bid document.
- (f) Any other relevant information with testimonials.
- (g) The bidder shall digitally sign all statements, documents, certificates uploaded by him, owning sole and complete responsibility for their correctness/authenticity as per the provisions of the IT ACT 2000.
- (h) In addition to the above, the bidder shall upload a complete set of bid document with NIT, Corrigendum, Prebid minutes and Addendum and sections from 1 to IX using his digital signature as a token of acceptance of all bid conditions and the absence of complete set of bid document in the submitted bid shall be treated as non-responsive and will be rejected by the Employer.
- (i) Price bid: This shall contain only the duly filled BoQ-file in MS-Excel format and shall be uploaded using the digital signature of the bidder in the e-tenders portal.
- (19) After the submission of bid online in the e -tenders portal, the hard copies of the following are to be submitted to the Tender Inviting Authority.
 - Copy of remittance towards bid submission fee and Original copy of Bid Security and original power of attorney
 - ii. Copy of confirmation of bid submission in the e-tenders portal.

The above documents shall be sent to the Employer's office address (as given in the BDS) by in such a way that it shall be delivered to the Tender box (as given in the BDS) of Tender Inviting Authority before the submission deadline. The Tender Inviting Authority reserves the right to reject any bid, for which the above details are not received before the stipulated date and time.

- (20) The Price bid shall only be submitted through online. The Tender Inviting Authority shall open the price bid of technically qualified bidders in the presence of bidders or their authorised representatives at notified date and time.
- (21) The Tender Inviting Authority shall not be responsible for any failure, malfunction or breakdown of the electronic system while downloading or uploading the documents by the Bidder during the e- procurement process
- (22) In case of any querries on e-tender, Contact below mentioned helpdesk services:

e-tender helpdesk of Kerala IT	Phone number: 0484-2332262
Mission:	

RFP FOR "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"

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Section III. Qualification Criteria

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Section III. Qualification Criteria

This Section contains the criteria that the "Employer" / "Procuring Entity" shall use to evaluate bids and qualify Bidders. In accordance with **Clause 34 ITB and Clause 36 ITB**, methods or Qualification criteria included in this section shall be used. The Bidder shall provide all the information requested in the forms included in **Section IV**, **Bidding Forms**.

A. Evaluation

In addition to the criteria listed in **Clause 34 ITB** the following criteria shall apply:

(i) Assessment of adequacy of Technical Proposal with Requirements

Evaluation of the Bidder's Technical Proposal will include an assessment of the Bidder's technical capacity to mobilize key equipment and personnel for the contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in **Section V** (Employer's Requirements / Works requirements).

The evaluation will include an assessment of the Bidder's capacity to meet the requirements regarding:

- Experience
- Financial situation
- Current contract commitments,
- Cash flow capacity,
- Equipment to be allocated, and
- Personnel to be fielded
- (ii) Alternative Completion Times: Not applicable
- (iii) Technical alternatives: Not applicable

B. Qualification

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Unless specifically indicated otherwise, it is the legal entity or entities comprising the Bidder, and not the Bidder's parent companies, subsidiaries or affiliates, that must satisfy the qualification criteria described below.

Factor		1.1 ELIGIB	BILITY				
	Criteria	Coi	mpliance Rec	Juirements		Documentatio n	
Sub-Factor		Single Entity		Bidder Joint Venture or Consortium			
	Requirement	Single Energy	All partners combined	Each partner	At least one partner		
1.1.1 Nationality	Nationality in accordance with Clause 3.1 (a) ITB.	Must meet requirement	JVA/ Consortiu m must meet requireme nt	Must meet requiremen t	N / A	Form ELI -1 and ELI -2 with attachments	
1.1.2 Conflict of Interest	No- conflicts of interests as described in Clause 3.2 ITB.	Must meet requirement	JVA/ Consortiu m must meet requireme nt	Must meet requiremen t	N / A	Letter of Technical Bid	
1.1.3 Ineligibility for corrupt or fraudulent practices	A bidder shall not be under a declaration of ineligibility for corrupt or fraudulent practices issued by the Employer as described in Clause 3.1 (f)	Must meet requirement	JVA/ Consortiu m must meet requireme nt	Must meet requiremen t	N/A	Letter of Technical Bid	

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Factor		1.1 ELIGIB	ILITY				
	Criteria	Compliance Requirements Docum		Compliance Requirements			
Sub-Factor		Single Entity	Bidde	r nture or Cons	ortium	Submission Requirements	
	Requirement	Single Littly	All partners combined	Each partner	At least one partner		
1.1.4 Ineligibility due to expelling / blacklisting / rescinding of work	Bidder Should not have failed in the last three (3) years to perform on any contract or should have not been expelled from or abandoned any PWD, Government of Kerala work, any other State Government, Central Government or have any of their works rescinded for any reason as described in Clause 3.3 ITB.	Must meet requirement.	JVA/ Consortiu m must meet requireme nt	Must meet requiremen t	N / A	Letter of technical bid (A declaration to this effect shall be furnished separately).	
1.1.5	The bidder shall have a valid Contractors license issued by Kerala State Electrical Inspectorate or any other state /UT in India. The copy of license must be submitted at the time of bidding.	Must meet requirement.	N / A	N / A	Must meet the requirem ent	Proof of licence from Inspectorate	

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Factor		1.1 ELIGIB	ILITY						
	Criteria	Criteria Compliance Requirements							
			Bidde	r		Submission			
Sub-Factor		Single Entity	Joint Ve	nture or Cons	ortium	Requirements			
	Requirement		All partners combined	Each partner	At least one partner				
1.1.6	The bidder shall be a manufacturer or an authorized supplier of LED type streetlights. If the bidding firm is not a manufacturer of LED street light fixtures, he must submit a copy of guarantee from the LED street light manufacturer(s) stating that they will supply LED street light fixtures, LED lights and its spares as per technical specifications of this tender.	Must meet requirement.	N / A	N / A	Must meet the requirem ent	Form of undertaking by manufacturer Certificate of incorporation/Form-G			

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Factor	1.1 ELIGIBILITY							
	Criteria	Cor		Documentatio n				
Cult Factor			Bidder					
Sub-Factor	Requirement	Single Entity	Joint Venture or Cons		1	Requirements		
			All partners combined	Each partner	At least one partner			
1.1.7	The bidder should be a manufacture of LED type streetlights having contract license or BEE accredited ESCO company of grade 3 or above (i.e, Grade 1 to 3) at the time of bid submission having maufacturer's authorization.	Must meet requirement.	N / A	N / A	Must meet the requirem ent	Proof of valid BEE accreditation from BEE or valid empanelment in the BEE published accreditation list.		
1.1.8 Government Owned Entity	Compliance with conditions as described in Clause 3.4 ITB.	Must meet requirement	N / A	Must meet requiremen t	N/A	Form ELI -1. and ELI -2, with attachments		
1.1.9 Declaration on O&M charges	The bidder should submit a declaration for O&M Charges as per format prescribed in Section IV	Must meet requirement	Must meet requireme nt	N / A	Lead Partner Must meet requirem ent	Format for Declaration on Operation & Maintenance Charges by lead bidder/sole bidder as applicable		
1.1.10 Sample submission	The bidder must submit 1 No. of sample of each type of Luminaire within 1 week from the date of technical bid opening	Must meet requirement	Must meet requireme nt	N / A	N / A	Samples of each type of Luminaire should be submitted within 1 week of Technical bid opening.		

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1.1 Pending Litigation: Pending Litigation Criterion and performance in past contracts shall apply:

Factor	1.2 HISTORICAL CONTRACT NON-PERFORMANCE								
	Criteria		Compliance R	equirements		Documentatio n			
Sub-Factor		Single	Bide Joint Ve	der nture or Cons	ortium	Submission Requirements			
	Requirement	Entity	All partners combined	Each partner	At least one partner				
1.2.1 History of non-performing contracts	Non-performance of a contract did not occur within the last 5 (five) years [1 April 2018 to bid submission date] prior to the deadline for submission, based on all information on fully settled disputes or litigation. A fully settled dispute or litigation is one that has been resolved in accordance with the Dispute Resolution Mechanism under the respective contract, and where all appeal instances available to the bidder have been exhausted.	Must meet requireme nt by itself or as partner to past or existing JVA	N / A	Must meet requiremen t by itself or as partner to past or existing JVA	N / A	Form-LIT			
1.2.2 Pending Litigation	All pending litigation shall in total not represent more than Eighty percent (80%) of the Bidder's net worth (calculate as the difference between total assets and total liabilities) and shall be treated as resolved against the Bidder.	Must meet requireme nt by itself or as partner to past or existing JVA	N / A	Must meet requiremen t by itself or as partner to past or existing JVA	N / A	Form-LIT			

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Factor	1.2 HISTORICAL CONTRACT NON-PERFORMANCE								
	Criteria		Documentation						
			Bid	der		Submission			
Sub-Factor		Single	Joint Ve	nture or Con	sortium	Requirements			
	Requirement	Entity	All partners combined	Each partner	At least one partner				
1.2.3 Levy of Maximum LD	Deleted	Deleted	Deleted	Deleted	Deleted	Deleted			
1.2.4 Rescinding / Terminatio n of contracts due to poor performan ce	Deleted	Deleted	Deleted	Deleted	Deleted	Deleted			

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1.2 Financial Requirements

Factor	1.3 F	INANCIAL S	SITUATION				
	Criteria		Compliance	e Requirem	ents	Documentation	
		Bidder				Submission	
Sub- Factor		Single		Joint Vent	ıre	Requirements	
Factor	Requirement	Entity	All partners combined	Each partner	At least one partner		
1.3.1 Historical Financial Performa nce	Submission of audited balance sheets or if not required by the law of the bidder's country, other financial statements acceptable to the Employer, for the last Five [5] years [March 2018 to March 2023] to demonstrate the current soundness of the bidder's financial position and its prospective long-term profitability. A Bidder's net worth calculated as the difference between total assets and total liabilities should be positive for at least three years in last five years.	Must meet require ment	N / A	Must meet requirem ent	N / A	Form FIN-1 with attachments Certificate from the Statutory Auditor (Chartered Accountant) / Company Secretary The said certificate also needs to be counter signed by authorized signatory of the bidder/Bidding consortium	
Factor	1.4 E	LIGIBILITY					
	Criteria		Compliance	Requireme	ents	Documentation	
			В	idder		Submission	
Sub- Factor	Ba maine manut	Single		Joint Ventu	re	Requirements	
Tactor	Requirement	Entity	All partners combined	Each partner	At least one partner		
1.4.1 Average Annual Turnover	Minimum average annual turnover (Electrical works) of INR 12 CRORE, calculated as total certified payments received for contracts in progress or completed, within the last Three [3] years [March 2020 to March 2023]. ie. (FY 2020-2021, 2021-2022, 2022-23)	Must meet require ment	Must meet requireme nt	Must meet minimum 26% of requirem ent	Lead partner must meet the requirement as per share holding in the Consortium / JV	Form FIN-2 Certificate from the Statutory Auditor (Chartered Accountant) / Company Secretary The said certificate also needs to be counter signed by authorized signatory of the bidder/Bidding consortium	

RFP FOR "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"

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Requirement The Bidder must demonstrate access to, or availability of, inancial resources such as liquid assets, lines of credit, or other inancial resources (means, other than any contractual	Single Entity Must meet require ment	All partners combined Must meet requireme	Joint Ventu Each partner	At least one partner	Submission Requirements
The Bidder must demonstrate access to, or availability of, inancial resources such as liquid assets, lines of credit, or other inancial resources (means, other than any contractual	Must meet require	All partners combined Must meet requireme	Joint Ventu Each partner	At least one partner	
The Bidder must demonstrate access to, or availability of, inancial resources such as liquid assets, lines of credit, or other inancial resources (means, other than any contractual	Must meet require	All partners combined Must meet requireme	Each partner Must	At least one partner	Requirements
The Bidder must demonstrate access to, or availability of, inancial resources such as liquid assets, lines of credit, or other inancial resources (means, other than any contractual	Must meet require	partners combined Must meet requireme	partner Must	partner	
access to, or availability of, inancial resources such as liquid assets, lines of credit, or other inancial resources (means, other than any contractual	meet require	requireme			
inancial resources such as liquid assets, lines of credit, or other inancial resources (means, other than any contractual	•	n+ '	Meet As	N/A	Form FIN-3
other than any contractual		nt	per share holding		and Form FIN-4
advance payments) to meet:			pattern		Certificate from the Statutory Audit (Chartered
i) the following cash-flow equirement:					Accountant) Company Secretary
ii) the overall cash flow requirements for this contract and its current commitments.	l cash flow this contract		The said certifica also need to be counter signed be authorized signato of the bidder/Biddir		
Liquid Assets mean cash and cash equivalents, short-term financial instruments, short term available-forsale-securities, marketable securities, trade receivables, short-term financing receivables and other assets that can be converted into cash within one year?					consortium
	NR 10 CRORE and i) the overall cash flow equirements for this contract and its current commitments. Liquid Assets mean cash and cash equivalents, shorterm financial instruments, thort term available-forale-securities, marketable eccurities, trade receivables, thort-term financing eccivables and other assets	NR 10 CRORE and i) the overall cash flow equirements for this contract and its current commitments. Liquid Assets mean cash and cash equivalents, shorterm financial instruments, thort term available-forale-securities, marketable eccurities, trade receivables, thort-term financing eccivables and other assets that can be converted into	NR 10 CRORE and i) the overall cash flow equirements for this contract and its current commitments. Liquid Assets mean cash and cash equivalents, shorterm financial instruments, thort term available-forale-securities, marketable eccurities, trade receivables, thort-term financing eccivables and other assets that can be converted into	NR 10 CRORE and i) the overall cash flow equirements for this contract and its current commitments. Liquid Assets mean cash and cash equivalents, shorterm financial instruments, thort term available-forale-securities, marketable eccurities, trade receivables, thort-term financing eccivables and other assets that can be converted into	i) the overall cash flow equirements for this contract and its current commitments. Liquid Assets mean cash and cash equivalents, shorterm financial instruments, thort term available-forale-securities, marketable eccurities, trade receivables, thort-term financing eccivables and other assets that can be converted into

RFP FOR "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"

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Factor	1.3 F	INANCIAL S	SITUATION			
	Criteria		Documentation			
6.1			E	Bidder		Submission Requirements
Sub- Factor	Requirement	Single Entity		Joint Ventu	 I	Requirements
1 4 6 6 7	Requirement	Lineity	All partners combined	Each partner	At least one partner	
1.4.3 Bidding Capacity	Availability of Bidding Capacity should be atleast equal to INR 40 CRORE	Must meet require	Must meet requireme nt	Must meet as per share	Lead partner must meet the	Form FIN -6 Certificate from the Statutory Audito
	Available bid capacity will be ment holdir patter	holding pattern in JV/conso	requirement as per share	(Chartered Accountant)		
	Bidding capacity = 2.5xAxN- B rtium holding agreeme the			holding in the Consortium	Company Secretary The said certificate also needs to be	
	Where			110	/ JV	counter signed b
	A= maximum annual construction turnover in last five financial years taking into account the completed as well as works in progress					authorized signator of the bidder/Biddin consortium
	(Updated to the current price level, rate of inflation shall be 7% per year).					
	N= Number of years prescribed for completion of works for which bids has been invited which is 0.75 Year for this bid.					
	B= Value at current price level of existing commitments and ongoing works to be completed during the next 3 years. Bidders will give a calculation for the same.					

1.3 Construction Experience

RFP FOR "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"

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Factor	1.5	EXPERIENCE				
	Criteria		Compliance R	equirements		Documenta tion
			Bide	der		Submission
Sub-Factor			Joint Venture			Requireme nts
	Requirement	Single Entity	All partners combined	Each partner	At least one partner	
(a)General Experien ce	Experience under construction, Infrastructure contracts in the role of contractor, subcontractor, or management contractor for at least the last five [5] years	Must meet requirement	N / A	Must meet requirement	N / A	Form EXP-1
	(a) Ie. (2018-2019, 2019- 2020, 2020-21, 2021-22, 2022-23) prior to the bid submission deadline, and with activity in at least nine (9) months in each year.					
(b)Specific Experien ce (Smart LED Streetlig ht)	(b)Completion as contractor, management contractor, or subcontractor, in at least (i) One similar LED Streetlight project work of contract value of at least INR 32 CRORE	Must meet requirement	(i) N/A	(i)N / A	(i)Must meet requireme nts	Form EXP 2(a)
	OR (ii) Two similar LED Streetlight project work of contract value of at least INR 20 CRORE Or		(ii) Must meet requiremen t	(ii) N/A	(ii) N/A	
	(iii) Three similar LED Streetlight project work of contract value of at least INR 16 CRORE		(iii) Must meet requirement	(iii) N/A	(iii) N/A	
	within the last seven (7) years, that have been successfully or are *substantially (as detailed in Section IV) completed. ie. (from 01st August 2016 to 31st July 2023) prior to the bid submission deadline,					

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NOTE: Similar LED Streetlight project implies, Construction /Conversion/ Supply of Streetlights with streetlighting with or without Centralized control system	
using Group/Individual control panels and streetlight management software in government, PSU OR Reputed private Organizations.	

Note:

- 1. *substantially completed means:
 - (i) Contractor has completed the works but could not commission the same because of hindrances beyond the control of contractor OR
 - (ii) Contractor has completed 90 % of the Contracted work (both physical and financial) $\ensuremath{\mathsf{OR}}$
 - (iii)Contractor has completed the work and commissioned the works atleast for the amount required for qualification, out of large size contract
- 2. Experience of the bidder earned by him as the JV partner will be considered to the limit of its share in the completed works shown in that JV or consortium agreement.
- 3. For present price level of cost of completed and commissioned works, the previous year (s) value shall be given weightage of 7% per year as follows:

Sl. No	Financial Year in which work was completed*	Weightage
(i)	2022-23	1.00
(ii)	2021-22	1.07
(iii)	2020-21	1.145
(iv)	2019-20	1.225
(v)	2018-19	1.31

^{*}For eg. Financial Year 2017-18 means 1 April 2017 to 31 March 2018

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1.6 Specific Requirements

- **1.6.1** Client's certificate of experience must clearly indicate whether (i) Completed and commissioned or (ii) Substantially completed
- 1.6.2 The Bidder shall submit copies of Work Orders, Completion Certificates in support of their experience claims. Only works of Govt. / PSU / Autonomous bodies under Govt. Sector / Reputed Private Sector Companies shall be considered. The experience certificates issued by only the respective project authority/owner shall be considered for evaluation of experience. If bidder is submitting their work executed for reputed private company, then it has to be supported with payment receipt and TDS certificate related to project duly certified by Chartered Accountant for consideration for the evaluation
- **1.6.3** For considering experience of the bidder, out of its experience as JV/Consortium, its share of works within the JV / Consortium shall be considered with relevant documentation/certificates.
- 1.6.4 JV and / or Consortium shall comprise of not more than three firms/companies (including the lead partner). The shareholding of the lead bidder must be highest amount among the Consortium /JV member. The Credentials of those members will be evaluated who have more than 26% equity in Consortium / JV.

1.7 Schedule-Personnel

The Bidder must demonstrate that it has the personnel for the key positions that meet the requirement of AUTHORITY.

1.8 Schedule-Equipment

The Bidder must demonstrate that it has the key equipment (either owned rented or leased)

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Section IV. Bidding Forms



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Section IV. Bidding Forms

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Letter of Technical Bid

The following form is to be downloaded, particulars are to be filled, scanned & uploaded by the Bidder,

to the	e e- tender website "www.etenders.kerala.gov.in" along with the Bid.
	* The detailed procedure for downloading / uploading the documents will be available in Help ${\it cd}$ & FAQ of the above mentioned Website.
-	Bidder shall fill in this Form in accordance with the instructions indicated. No alterations to its at shall be permitted and no substitutions shall be accepted.]
	Date:, 2023 No.: Invitation for Bid No.:
То:	Chief Executive Officer Cochin Smart Mission Limited (CSML) 4th Floor, JLN Stadium Metro Station, Kaloor, Kochi - 682 017, India.
We, t	he undersigned, declare that:
(a)	We have examined and have no reservations to the Bidding Document, including Addenda issued in accordance with Instructions to Bidders (ITB) 11 [insert the number and issuing date of each Addenda];
(b)	We offer to execute in conformity with the Bidding Document the following Works "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)".
(c)	Our bid consisting of the Technical Bid and the Price Bid shall be valid for a period of [specify the number of calendar days] days from the latest date fixed for the Technical bid opening date) in accordance with the Sub-Clause 18.1 ITB of Bidding Document, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
(d)	We, including any subcontractors or suppliers for any part of the contract, have or will have nationalities from eligible countries, in accordance with Sub-Clause 3.1 ITB ;

(e) We, including any subcontractors or suppliers for any part of the contract, do not have any

conflict of interest in accordance with **Sub-Clause 3.2 ITB**;



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(f)	If our bid is accepted, we commit to obtain a performance security in accordance with the
	Bidding Document.

- (g) We are not participating, as a Bidder or as a subcontractor, in more than one bid in this bidding process in accordance with **Sub-Clause 3.2** (e) **ITB**; other than alternative offers submitted in accordance with **Clause 15 ITB**;
- (h) We agree to permit <u>Cochin Smart Mission Limited [CSML]</u> or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by <u>Cochin Smart Mission Limited [CSML]</u>.
- (i) If our Bid is accepted, we commit to mobilizing key equipment and personnel in accordance with the requirements set forth in **Section V (Employer's Requirements / Works requirements / Technical Specifications)** and our Technical Bid, or as otherwise agreed with the Employer.
- (j) We, including any of our subcontractors or suppliers for any part of the contract, have not been declared ineligible by any State Government agency or Central Government agency under the Employer's country laws or official regulations or by an act of compliance
- (k) We, including any of our subcontractors or suppliers for any part of the contract, have not failed in the last three (3) years to perform on any contract or been expelled from or abandoned any PWD, Government of Kerala work, any other State Government, Central Government or have any of their works rescinded for any reason in accordance with SubClause 3.3 ITB;
- (l) We are not a government owned entity/ We are a government owned entity but meet the requirements of **Sub-Clause 3.4 ITB**⁵;
- (m) We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract: [insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]

Name of Recipient	Address	Reason	Amount

(If none has been paid or is to be paid, indicate "none.")

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⁵ Use one of the two options as appropriate



(n)	We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed; and
(0)	We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.
(p)	We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.
Name	In the capacity of
[Inse	rt complete name of person signing the Bid] [Insert legal capacity of person ng the bid]
Signe	d
[Inse	rt signature of person whose name and capacity are shown above]
-	authorized to sign the bid for and on behalf ofrt complete name of Bidder]
Dated	on,,
	rt date of signing]



Bidder shall follow the applicable procedure indicated below:

Submission of tender through	Procedure to be followed by Bidder
e-tendering (through e- procurement	Table A. Local Currency- "Appendix to Bid-
portal www.etenders.kerala.gov.in)	Schedule of Adjustment Data" provided in
	subsequent sheets shall be downloaded, particulars
	are to be filled, scanned & uploaded by the Bidder,
	to the e- tender website
	"www.etenders.kerala.gov.in" along with the
	Bid.



COCHIN SMART MISSION LIMITED

Bill of Quantities

Bill of Quantities (BOQ.xls file)

(uploaded separately as .xls file in VOLUME-3)

[via e- procurement portal www.etenders.kerala.gov.in]



Financial Bid Format & Instructions

To be submitted on e-Tendering Portal only (i.e. www.etenders.kerala.gov.in)

Bill of Quantities (BOQ) is uploaded separately as Microsoft excel file.

Instructions:

- a) Bill of Quantities (BOQ) can be downloaded free of cost from the e- Government Procurement (e-GP) Website www.etenders.kerala.gov.in. All bid documents are to be submitted online only and in the designated manner on the e-GP website. Tenders/ bids shall be accepted only through online mode on the e-GP website and no manual submission of the same shall be entertained except for the documents specifically indicated.
- b) The Bidder shall submit their bid online only through the e-GP web site of Kerala (www.etenders.kerela.gov.in) as per the procedure laid down for e-submission as detailed in the web site. For e tenders, the bidders shall download the tender documents including the Bill of Quantities (BOQ) file from the e tendering portal http://www.etenders.kerala.gov.in. The Bidder shall fill up the documents. and submit the same online using their Digital Signature Certificate. On successful submission of bids, a system receipt can be generated and downloaded by the bidder for future reference. Copies of all certificates and documents shall be uploaded while submitting the tender online. Submission of Price proposal in hard copy would result in disqualification and rejection of bid
- c) CSML does not guarantee the quantity for the particular line items given above. The actual quantity for the given items may be more or less. The payment shall be made based on unit cost quoted for the particular item on actual work/item is undertaken / supplied.



- d) All items provided should be under Insurance. The Insurance should be for entire duration of the Project for 5 Years 7 Months and comprehensive covering damages for Theft, Fire, Natural Calamities, Riots and Terrorists activities etc.
- e) Bidder should provide all prices as per the prescribed format under BOQ.
- f) All the prices are to be entered in Indian Rupees ONLY
- g) CSML reserves the right to ask the Bidder to submit proof of payment against any of the taxes, duties, levies indicated.
- h) CSML shall not take into account all Taxes, Duties & Levies for the purpose of evaluation
- i) The Bidder needs to account for all Out of Pocket expenses, no additional payment shall be made by CSML whatsoever.
- j) Bidder should refer the Bid document / RFP document for details on the technical requirements and specifications for the items mentioned in the financial formats.
- k) Any component/fixtures/ancillary/adjunct to the specified item shall be deemed to have been included in the unit rates quoted above.



Preamble to Bill of Quantities

- 1) The Bill of Quantities (BOQ) shall be read in conjunction with the Instructions to Bidders, General and Particular Conditions of Contract, Specifications, and Drawings.
- 2) The quantities given in the BOQ are estimated and provisional and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Employer's Representative and valued at the rates and prices bid in the priced BOQ, where applicable, and otherwise at such rates and prices as the Employer's Representative may fix within the terms of the Contract.
- 3) The rates and prices bid in the priced Bill of Quantities shall, except as otherwise provided under the Contract, include all construction equipment, labor, supervision, materials, surveying, setting out, erection, maintenance, all lead and lift, insurance, profit, taxes excluding GST, and duties, together with all general risks, liabilities, and obligations set out or implied in the Contract.
- 4) General directions and descriptions of work and Materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering prices against each item in the priced Bill of Quantities.
- 5) The method of execution and measurement of completed work for payment shall be in accordance to the respective procedures provided in the Technical Specifications or Particular Specifications under this Contract and in the absence of which shall be in accordance to the relevant BIS Standard and Standard Specification of the State of Kerala or Standard Specification published by the Central Public Works Department, Government of India as the case may be.
- 6) Rock is defined as all material that, in the opinion of the Employer's Representative, require blasting, or the use of metal wedges and sledgehammers, or the use of compressed air drilling for their removal, and that cannot be extracted by ripping with a tractor of at least 150 brake horsepower (BHP) with a single, rear-mounted, heavy-duty ripper.
- 7) All defective works are liable to be demolished, rebuilt and defective materials replaced by the contractor at his own cost and time



- 8) In view of the site location and their prevailing condition, it is mandatory to the Contractor to visit the site and make himself thoroughly familiar with the site conditions, access and account for all possible difficulties and other requirements mentioned elsewhere in his bid prior to submission. When a contractor submits his bid for this work, it will be considered that he has quoted for this work with full and complete knowledge of the site and prevailing conditions, and no claim for additional compensation shall be entertained on this account.
- 9) Description of items in this BOQ is by itself not complete, and for a full description the BOQ should be read together with the Technical Specifications and Drawings. Rates quoted in the BOQ are deemed to have included all aspects covered in the Preamble and Technical Specifications, and all features and details shown in the Drawings.
- 10) The Bidder shall, in the course of studying the bid document, point out all his/her remarks on the documents and make all his/her queries to the Employer who will study these remarks and clarify any discrepancy between the Bidding Documents.
- 11) Submissions shall be strictly in accordance with the documents and shall not be qualified in any way. The Bidder shall not alter the text of the BOQ.
- 12) Extra and excess items of work shall not vitiate the Contract. The Contractor shall be bound to execute extra items of work as directed by the Engineer. The rates for extra items will be as per rates decided under Contract Conditions.
- 13) For the evaluation process, if requested by the Evaluation Committee, the Contractor shall provide a sheet analysis for all priced items showing how the rate entered was derived.
- 14) The Bidder shall satisfy himself/herself as to the meaning of every item in the BOQ. The rates and prices inserted in the BOQ by the bidder shall be deemed to cover all costs, taxes except GST, customs and import duties, levies, profits, risks, liabilities, insurance and obligations set forth or implied in the bid including, but not limited to the following:
 - (i) All labour and Materials including consumables;
 - (ii) All temporary work of every description required including over ground pumping and other requirements to avoid disruption to the service whilst maintenance or repair work is carried out;



- (iii) The provision and use of all equipment, tools and Plant of every kind, whether mechanical or non-mechanical, required for the expeditious carrying out of the Works in their proper sequence;
- (iv) Provision for scaffolding, staging, guard rails, temporary stairs, temporary access during execution, approach roads up to the Site for the movement of vehicles, and heavy excavation machinery with supporting transport facility;
- (v) Provision for excavation, back-filling, bringing to the Site extra fill for back-fill, making good and reinstating surfaces, disposing of surplus material, dealing with all ground water and wastewater flows, and for work in close proximity to other utility apparatus including protecting that apparatus;
- (vi) Provision for work on corridors such as traffic control measures, safety barriers, obtaining any approvals and permits from authorities, and reinstatement of surfaces:
- (vii)Cooperation and coordination of the work with related authorities, other contractors and utilities, including obtaining their permission before starting the related Works if required; and
- (viii)Providing security arrangements to guard the Site and premises at all times and to maintain strict control on the movement of Materials and labor until the completion of the work.
- 15) All electricity costs and initial connection charges etc. associated with operations shall be paid by **Contractor** directly to the electricity service provider. The permanent power connections shall be obtained in the name of / [CSML or KMC as informed later], the charges of which will be paid by CSML] directly to electricity department or reimbursed under provisional sum / under O&M cost if paid by the Contractor.
- 16) The serviceable materials, recovered while shifting of utilities as ascertained by the Employer or Engineer in charge, shall be deposited at designated store yards or as directed by the Employer or Engineer in charge. No payment shall be made to the Contractor in this regard.
- 17) Works itemized in the BOQ will be subject to measurement. Such measurement will be in the unit of measurement shown the BOQ and payment shall be made on the measured quantities.



- 18) All rules and regulations of the labor department, contract labor Laws, provident fund and employee state insurance and connected Laws, and all other Laws of the land are to be complied with by the Bidder within the quoted rates.
- 19) Contractor shall make arrangements for required space for construction of, office and stores at suitable locations. No land will be provided by the Employer to the Contractor for constructing any structure for his labor, workman and supervisory camps, unauthorized hutments, at the Site or within the premises. The Contractor shall make his/her own arrangements for the same outside the premises/boundary. These, if any, shall be with the knowledge of and prior approval of the Employer's Representative.
- 20) Contractor shall fully agree to execute any work/item for which their rates are exceptionally lower in comparison with engineers estimate on their quoted rates only. Contractor will not ask any increase in the quoted rate on any ground. Contractor is fully aware that if they fail to execute the work on quoted rate Employer/CSML is fully empowered to get the work executed through any other contractor on market rate at our risk & cost. CSML shall deduct the certified amount payable to other contractor who has executed said work from main contractor bills / bank guarantee & main contractor shall have no claim whatsoever on CSML.
- 21) The Provisional Sum included and so designated in the BOQ shall be expended in whole or in part at the direction and discretion of the Employer's Representative in accordance with the Conditions of Contract. It will be used by the Employer's Representative for nominated sub-contractors, line agencies, installation of power connections/power feeder by the electricity department, third party inspecting agencies, charges levied by statutory electrical, telephone, or other authorities, or for other miscellaneous works. The use of the Provisional Sum will also be for relocation of utilities above or underground that conflict with the existing or permanent line or level of the Works, independent sampling and laboratory testing, as directed by the Employer's Representative, replacement or compensation for plants and trees removed due to the Worksetcas directed by the Employer's Representative.
 - Metric System and Abbreviations
 - 1. Millilitre -ml
 - 2. Million Litres per Day- mld
 - 3. Million Litre -ML



- 4. Litre-ltr
- 5. Linear meter -m
- 6. Gram -gm
- 7. Square metre -m2
- 8. Cubic metre -m3
- 9. Number- No.
- 10. Kilogram- kg
- 11. Lump Sum- LS
- 12. Indian Rupees -Rs
- 13. Millimetre -mm
- 14. Square Centimetre- cm2
- 15. Square Millimetre -mm2

Date:

RFP FOR "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"



COCHIN SMART MISSION LIMITED

Financial Proposal Covering Letter

(To be submitted on the Letterhead of the Bidder)

2 dec.
То
Chief Executive Officer Cochin Smart Mission Limited (CSML) 4th Floor, JLN Stadium Metro Station, Kaloor, Kochi - 682 017, India.
Sub: Bid for
Dear Sir.

- 1. We, the undersigned bidder, Having read & examined in detail, the Bidding Document, the receipt of which is hereby duly acknowledged, I/ we, the undersigned, offer to supply/ work as mentioned in the Scope of the work, Bill of Material, Technical Specifications, Service Level Standards & in conformity with the said bidding document for the same.
- 2. I / We undertake that the prices are in conformity with the specifications prescribed. The quote/ price are inclusive of all cost likely to be incurred for executing this work. The prices are inclusive of all type of govt. taxes/duties except GST as mentioned in the financial bid (BoQ).
- 3. I / We undertake, if our bid is accepted, to deliver the goods & services in accordance with the delivery schedule specified in the RFP.
- 4. I/We undertake to successfully operationalize the entire solution as per scope of work mentioned in the RFP document.
- I/ We have examined and have no reservations to the Bidding Documents, including any corrigendum/addendums issued by CSML;
- 6. I/We understand that any additional hardware and software required to make the entire solution operational shall have to be provided by us.
- 7. I/ We hereby declare that in case the contract is awarded to us, we shall submit the contract performance bank guarantee and additional performance guarantee (if applicable) as



COCHIN SMART MISSION LIMITED

prescribed in the RFP.

- 8. I / We agree to abide by this bid for a period of 180 days from the date of bid submission and it shall remain binding upon us and may be accepted at any time before the expiry of that period.
- 9. Until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and your notification of award shall constitute a binding Contract between us.
- 10.I/ We hereby declare that our bid is made in good faith, without collusion or fraud and the information contained in the bid is true and correct to the best of our knowledge and belief.
- 11. We understand that CSML shall take into account all Taxes excluding GST, Duties & Levies for the purpose of evaluation & selection of L-1 bidder
- 12. We understand that you are not bound to accept the lowest or any bid you may receive. We agree to all the terms & conditions as mentioned in the RFP document and submit that we have not submitted any deviations in this regard.
- 13. I/we fully agree to execute any work/item for which our rates are exceptionally lower in comparison with engineers estimate on our quoted rates only. I/we will not ask any increase in the quoted rate on any ground. I/ we am / are fully aware that if I/we fail to execute the work on quoted rate, EMPLOYER/CSML is fully empowered to get the work executed through any other contractor on market rate at our risk & cost. CSML shall deduct the certified amount payable to other contractor who has executed said work from our bills / bank guarantee & I / we shall have no claim whatsoever on CSML.

In witness thereof, I/we submit this Bid under and in accordance with the terms of the RFP document.

Section IV. Bidding Forms

RFP FOR "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"



COCHIN SMART MISSION LIMITED

Date: Place:	Yours faithfully,
	(Signature of the Authorized signatory)
	(Name and designation of the of the Authorized signatory)
	Name and seal of Bidder/Lead Member



Technical Proposal / Bid

- Mobilization Schedule
- Work Plan & Construction Schedule
- Others

Bidder shall follow the applicable procedure indicated below:

Submission of tender through	Procedure to be followed by Bidder			
e-tendering (through e- procurement portal	Technical proposal consisting of above mentioned ítems			
www.etenders.kerala.gov.in)	indicated in the following forms is to be downloaded,			
	particulars are to be filled, scanned & uploaded by the			
	Bidder, to the e-tender website			
	<u>"www.etenders.kerala.gov.in"</u> along with the Bid.			

Section IV. Bidding Forms

RFP FOR "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"



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Site Organization



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Method Statement

(Bidder shall insert the Method Statement complying to the following)



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Mobilization Schedule

(Bidder shall insert the Mobilization Schedule)



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Work Plan and Construction Schedule



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* fill and retain appropriate

Equipment (NOT APPLICABLE FOR THIS TENDER)

Form-EQU: Equipment

Format for Undertaking on deployment of competent equipment

(Affidavit on non-judicial stamp paper of Rs 200 duly Notarised by the Notary Public)
Undertaking

To Chief Executive Officer Cochin Smart Mission Limited (CSML) 4th Floor, JLN Stadium Metro Station, Kaloor, Kochi - 682 017, India.

Sub: Bid for "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)" NIT Reference No: XX Dear Sir. I / Wehaving the registereddeclare that I / We shall abide by the conditions set forth therein at clause no 1.7 Schedule-Equipment of Section III Qualification Criteria. We confirm that we shall deploy required equipment's as per requirement during the execution of work as mentioned in the tender document. I / We further confirm that minimum equipment's to execute electrical work shall be directly deputed by me/us. Signature of the Tenderer With Seal Place: ---- Signed by: (Name of authorized representative) Name of bidder Attested by: _____ (Notary Public)



Format for Gaurantee by Manufacturer on behalf of Bidder Form-G

To,

Chief Executive Officer

	sion Limited (CSML) lium Metro Station,
RFP Ref	: Tender reference: CSML/ENERGY/RFP/003-02
Name of the work	: "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"
Dear Sir,	
lights having factor units at	who are established and reputed manufacturers of LED street ries at registered office atand manufacturingto bid, negotiate and conclude the contract with ove mentioned tender for the above products manufactured by us.
5	that the above-mentioned lights are not end of the life and we hereby t these products for the duration of minimum five years from the date of d.
support for street lig guarantee supply an Project "PAN CITY SM	We M/swill supply and provide the technical ght project as per the tender specifications on successfully bidding. We d provide the after sales of spare parts and services for the execution of MART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES IRD CALL)" as per the tender conditions.
We hope the confirm	nation provided are inline to your requirement.
Yours faithfully, (Na	me & Designation of Manufacturer with stamp)
_	
For	



COCHIN SMART MISSION LIMITED

Personnel (NOT APPLICABLE FOR THIS TENDER)

Format for Undertaking on deployment of competent staff on company letter head

Undertaking
То
Chief Executive Officer
Cochin Smart Mission Limited (CSML)
4th Floor, JLN Stadium Metro Station,
Kaloor, Kochi - 682 017, India.
Sub: Bid for "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES
MISSION, KOCHI (THIRD CALL)"
NIT Reference No: XX
Dear Sir,
I / Wehaving the registered office atdeclare that I / We shall abide by the conditions set
forth therein at clause no 1.6 Schedule Personnel of Section III Qualification Criteria. We
confirm that we shall directly employ & depute minimum no of competent key staff as per
the qualification & experience mentioned in the tender document against Electrical works.
I / We further confirm that minimum key personnel to execute & supervise electrical work
shall be directly employed & deputed by me/us.
shall be directly employed & deputed by me/us.
Signature of the Tenderer
with Seal
Place: Signed by:
Date:
(Name of authorized representative)
Name of bidder
Attested by:
(Notary Public)



Bidders Qualification

To establish its qualifications to perform the contract in accordance with Section III (Qualification Criteria) the Bidder shall provide the information requested in the corresponding Information Sheets included hereunder.

Form ELI - 1: Bidder's Information Sheet

The following form is to be downloaded, particulars are to be filled, scanned & uploaded by the Bidder, to the e-tender website "www.etenders.kerala.gov.in" along with the Bid.

Note:* The detailed procedure for downloading / uploading the documents will be available in Help wizard & FAQ of the above mentioned Website.

Bidder's Information				
Bidder's legal name				
In case of JV/Consortium, legal name of each partner				
Bidder's country of constitution				
Bidder's year of constitution				
Bidder's legal address in country of constitution				



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Bidder's Information				
	er's authorized sentative			
teleph	umbers, e-mail			
*Uplo	*Uploaded the copies of the following original documents.			
1 .	0	entity, articles of incorporation or constitution of the legal entity named ance with Sub-Clause 3.1 & 3.2 ITB .		
2 .	2. Authorization to represent the firm or JV named in above, in accordance with Sub-Clause 20.2 ITB .			
3 .	3. In case of JV/consortium, JV /Consortium agreement, in accordance with Sub-Clause 3.1 & 5.2 ITB .			
4.		nment-owned entity, any additional documents not covered under 1 o comply with Sub-Clause 3.4 ITB .		



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Form ELI - 2: JV / Consortium Information Sheet

The following form is to be downloaded, particulars are to be filled, scanned & uploaded by the Bidder, to the e- tender website "www.etenders.kerala.gov.in" along with the Bid.

Note:* The detailed procedure for downloading / uploading the documents will be available in Help wizard & FAQ of the above mentioned Website.

Each member of a JV / Consortium must fill in this form

JV / Consortium/ Specialist Subcontractor Information				
Bidder's legal name				
JV/Consortium Partner's or Specialist Subcontractor's legal name				
JV/Consortium Partner's or Specialist Subcontractor's country of constitution				
JV/Consortium Partner's or Specialist Subcontractor's year of constitution				



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JV / Consortium/ Specialist Subcontractor Information					
JV / Consortium Partner's or Specialist Subcontractor's legal address in country of constitution					
JV /Consortium Partner's or Specialist Subcontractor's authorized representative information (name, address, telephone numbers, fax numbers, e-mail address)					
*Uploaded the copies (of the following original documents.				
Sub-Clause 3.1 a ☐ 2. Authorization to ☐ 3. In the case of gove	ooration or constitution of the legal entity named above, in accordance with & 3.2 ITB represent the firm named above, in accordance with Sub-Clause 20.2 ITB. vernment-owned entity, documents establishing legal and financial ompliance with commercial law, in accordance with Sub-Clause 3.4 ITB.				



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Form LIT - Pending Litigation

The following form is to be downloaded, particulars are to be filled, scanned & uploaded by the Bidder, to the e-tender website "www.etenders.kerala.gov.in" along with the Bid.

Note:* The detailed procedure for downloading / uploading the documents will be available in Help wizard & FAQ of the above mentioned Website.

Each Bidder or member of a JV must fill in this form

Pending Litigation					
 22No pending litigation and arbitration in accordance with Criteria 1.2.1 & 1.2.2 of Section III (Qualification Criteria) Below is the description of all Pending litigation and arbitration involving the bidder (or each JV member if Bidder is a JV member) in accordance with Criteria 1.2.1 & 1.2.2 of Section III (Qualification Criteria) 					
Year	Matter in Dispute	Value of Pending Claim in INR	Value of Pending Claim as a Percentage of Net Worth		



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Form FIN - 1: Historical Financial Performance / Financial Situation

The following form is to be downloaded, particulars are to be filled, scanned & uploaded by the Bidder, to the e- tender website "www.etenders.kerala.gov.in" along with the Bid.

Note:* The detailed procedure for downloading / uploading the documents will be available in Help wizard & FAQ of the above mentioned Website.

Each Bidder or Each member of a JV/Consortium must fill in this form

	Financial Data for Previous 5 Years [INR Equivalent]				
	Year 1: 2022-23	Year 2: 2021-22	Year 3: 2020-21	Year 4: 2019-20	Year 5: 2018-19
	Info	rmation fron	n Balance She	et	
Total Assets					
Total Liabilities					
Net Worth					
Current Assets					
Current Liabilities					
		·			
	Fi	inancial Data	for Previous	5 Years [INR Eq	uivalent]
	Fi Year 1: 2022-23	inancial Data Year 2: 2021-22	for Previous Year 3: 2020-21	5 Years [INR Eq Year 4: 2019-20	uivalent] Year 5: 2018-19
	Year 1: 2022-23	Year 2:	Year 3: 2020-21	Year 4: 2019-20	Year 5:
Total Revenues	Year 1: 2022-23	Year 2: 2021-22	Year 3: 2020-21	Year 4: 2019-20	Year 5:
Total Revenues Profits Before Taxes	Year 1: 2022-23	Year 2: 2021-22	Year 3: 2020-21	Year 4: 2019-20	Year 5:
	Year 1: 2022-23	Year 2: 2021-22	Year 3: 2020-21	Year 4: 2019-20	Year 5:



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- □ *Uploaded the copies of financial statements (balance sheets including all related notes, and income statements) for the last **Three years**, as indicated above, complying with the following conditions.
 - All such documents reflect the financial situation of the legal entities comprising the Bidder or partner to a JV, and not sister or parent companies, subsidiaries or affiliates
 - Historic financial statements must be audited by a certified accountant.
 - Historic financial statements must be complete, including all notes to the financial statements.
 - Historic financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).



COCHIN SMART MISSION LIMITED

Form FIN - 2: Average Annual Construction Turnover

The following form is to be downloaded, particulars are to be filled, scanned & uploaded by the Bidder, to the e-tender website "www.etenders.kerala.gov.in" along with the Bid.

Note:* The detailed procedure for downloading / uploading the documents will be available in Help wizard & FAQ of the above mentioned Website.

Each Bidder or Each member of a JV/Consortium must fill in this form

Annual Turnover Data for the Last 3 Years (Electrical Projects)						
Year	Amount Currency	Exchange Rate	INR Equivalent			
Year 1: 2022-23						
Year 2: 2021-22						
Year 3: 2020-21						
Average Anr	Average Annual Construction Turnover for the Last 3 Years					

The information supplied should be the Annual Turnover of the Bidder or each member of a JV in terms of the amounts billed to clients for each year for work in progress or completed, converted to INRs at the rate of exchange at the end of the period reported.



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Form FIN - 3: Availability of Financial Resources

The following form is to be downloaded, particulars are to be filled, scanned & uploaded by the Bidder, to the e-tender website "www.etenders.kerala.gov.in" along with the Bid.

Note:* The detailed procedure for downloading / uploading the documents will be available in Help wizard & FAQ of the above mentioned Website.

Specify proposed sources of financing, such as liquid assets**, lines of credit, and other financial resources (means other than any Contractual advance payments), available to meet the financial resources requirements indicated in Form Fin-4 ie. the total construction cash flow demands of the subject contract or contracts as indicated in Section III (Qualification Criteria). Each Bidder or Each member of a JV/Consortium must fill in this form

	Financial Resources				
Sl. No.	Source of financing	Amount (INR equivalent)			
1					
2					
3					

^{**}Liquid Assets mean cash and cash equivalents, short-term financial instruments, short term available-for-sale-securities, marketable securities, trade receivables, short-term financing receivables and other assets that can be converted into cash within one year.

Note:

- i) The bidder shall provide supporting documents like letter from the Banks for the revolving line of credit facility etc specific to the project (in format Form FIN-5) if applicable for its declared availability of financial resources.
- Bidder shall provide details on available credit facility from each source of financing after utilizing to the commitments



Form FIN - 4: Current Contract Commitments / Works in Progress

The following form is to be downloaded, particulars are to be filled, scanned & uploaded by the Bidder, to the e-tender website "www.etenders.kerala.gov.in" along with the Bid.

Note:* The detailed procedure for downloading / uploading the documents will be available in Help wizard & FAQ of the above mentioned Website.

Bidder (or each JV partner) should provide information indicated below in order to calculate the aggregated financial resources requirement, which equals the sum of: (i) the Bidder's (or each JV partner's) current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued and (ii) financial resources requirement for subject contract as determined by the Employer. Bidder must also disclose any other financial obligations that could materially affect the implementation of subject contract if such contract were to be awarded to the Bidder.

Each Bidder or Each member of a JV/Consortium must fill in this form

Current Contract Commitments						
Sl. No.	Name of Contract	Employer's Contact Address, Tel, Fax	Value of Outstanding Work (B**) ^q [Current <i>INR</i> Equivalent]	Estimated Completion Date	Remaining Contract period in months(A*) ^p	Two months financial requirement [2 x B / A]
1						
2						
3						
4						
*A	Cumulative Financial Resources Requirement for two months for Current Contract Commitments ^r				INR	
**B	Financial Resources Requirement for Subject Contract (as indicated in Section III (Qualification Criteria) .					
A + B	Financial Resources Requirement (Sum of A and B)					

p: Remaining contract period to be calculated from 28 days prior to bid submission deadline.



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q: Remaining Outstanding Contract Values to be calculated from 28 days prior to the bid submission deadline.

r: Bidder should calculate this amount based on the sum of Monthly Financial Resources Requirements for Each Current Works Contract based on the following calculation:

2X Estimated Contract Value (Inclusive of Taxes and Duties)
Completion Period in Months

Note:

i) The bidder shall provide supporting documents like letter from the Banks for the revolving line of credit facility etc specific to the project (in format Form FIN-5) if average annual current liquidity of last three years is below the requirement as required by clause no 1.3.3 of Qualification Criterion of Section III



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Form FIN - 5: Sample Form for assured revolving line of credit facility

The following form is to be downloaded, particulars are to be filled, scanned & uploaded by the Bidder, to the e-tender website "www.etenders.kerala.gov.in" along with the Bid.

Note:* The detailed procedure for downloading / uploading the documents will be available in Help wizard & FAQ of the above mentioned Website.

(To be submitted by a Reputed Bank on the Bank's Letter head)
Date: (Insert Date)
To: Chief Executive Officer Cochin Smart Mission Limited (CSML) 4th Floor, JLN Stadium Metro Station, Kaloor, Kochi - 682 017, India.
Subject: Letter of Assurance for Revolving line of credit facility for INR
Dear Sir,
[name and address of Bidder] (hereinafter called the "Bidder") intends to submit a bid for "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)" (name of contract work)" under the Chief Executive Officer, Cochin Smart Mission Limited (CSML) (hereinafter called the "Employer") in response to the Invitation for Bids issued by the Chief Executive Officer, Cochin Smart Mission Limited (CSML) (through IFB no. CSML/ENERGY / RFP/003-02 Date: 25/08/2023; and WHEREAS the Bidder has requested that an assured revolving line of credit be provided to it for executing the "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)" [name of contract work) In the event that the Contract is awarded to it; then
KNOW ALL THESE PEOPLE by these presents that We [name of Bank]
of [name of Country] having our registered office at [address
of registered office] are willing to provide to (the Bidder) a sum of up to [amount of guarantee in figures and words] as an assured revolving line of gradit for everyting the Works under (PAN CITY SMART LED STREET ICLUSTS IN MOCH.
of credit for executing the Works under _"PAN CITY SMART LED STREETLIGHTS IN KOCH CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)" name of contract work)
should the Bidder be awarded the contract based on its tendered prices.



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We understand that this assurance may be taken into consideration by the Employer during evaluation of the Bidder's financial capabilities, and further assure that we intend to maintain this revolving line of credit until such time as the Works are completed and taken over by the Employer.

SEALED with the Common	n Seal of the said Bank on the day o	of, 2023
Date:	Signature of the Bank:	
Witness:	Seal:	

[Signature, name and address]



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Form FIN -6: Available bidding capacity Information and declaration

The following form is to be downloaded, particulars are to be filled, scanned & uploaded by the Bidder, to the e-tender website "www.etenders.kerala.gov.in" along with the Bid.

The bidder shall have to submit an affidavit duly signed by the CA or auditors of the company on non judicial stamp paper of Rs 200 duly Notarised by the Notary Public to the effect that he has considered all ongoing projects to be completed in next three years.

Note:* The detailed procedure for downloading / uploading the documents will be available in Help wizard & FAQ of the above mentioned Website.

(To be submitted by bidder / each partner of the JV/ Consortium through affidavit as explained)

Availability of Bidding Capacity should be atleast equal to INR 40 Crore (as indicated in Section III (Qualification Criteria).

Available bid capacity will be evaluated using following formula stated below:

Bidding capacity = 2.5 X A X N - B

Where

A = maximum annual construction turnover in last five financial years taking into account the completed as well as works in progress (updated to the current price level, rate of inflation shall be 7 % per year).

N = Number of years prescribed for completion of works for which bids has been invited which is **0.75 year**

B= Value at current price level of existing commitments and ongoing works to be completed during the next 3 **years**. Bidders will give a calculation for the same.

Bidders will submit an undertaking in original confirming that the details of all such works have been provided either being executed in their name or being executed as joint venture within India or abroad (bidder's share).



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Form EXP - 1: General Construction Experience

The following form is to be downloaded, particulars are to be filled, scanned & uploaded by the Bidder, to the e-tender website "www.etenders.kerala.gov.in" along with the Bid.

Note:* The detailed procedure for downloading / uploading the documents will be available in Help wizard & FAQ of the above mentioned Website.

Each Bidder or Each member of a JV/ Consortium must fill in this form

General Construction Experience				
Starting Month Year	Ending Month Year	Years	Contract Identification and Name Name and Address of Employer Brief Description of the Works Executed by the Bidder	Role of Bidder



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Form EXP - 2(a): Specific work Experience

The following form is to be downloaded, particulars are to be filled, scanned & uploaded by the Bidder, to the e- tender website "www.etenders.kerala.gov.in" along with the Bid.

Note:* The detailed procedure for downloading / uploading the documents will be available in Help wizard & FAQ of the above mentioned Website.

Fill up one (1) form per contract.

Contract of Similar Size and Nature			
Contract No of	Contract Identification		
Award Date		Completion Date	
Role in Contract	Contractor	Management Contractor	Subcontractor
Total Contract Amount			Equivalent INR
If partner in a JV or subcontractor, specify participation of total contract amount	Percent of Total	Aı	mount
Employer's Name Address Telephone/Fax Number E-mail			
Description	of the similarity in accor	dance with Criteria 1.4	2.2 of Section III

Reference page Number. of copy of work order completion certificate in support of above experience:

^{*}substantially completed means:



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- (i) Contractor has completed the works but could not commission the same because of hindrances beyond the control of contractor or
- (ii) Contractor has completed 90 % of the Contracted work (both physical and financial) or
- (iii) Contractor has completed the work and commissioned the works atleast for the amount required for qualification, out of large size contract



Form TECH 1: Draft Format for Undertaking on Liquidated Damages

(NOT APPLICABLE FOR THIS PROJECT)

The following form is to be downloaded, particulars are to be filled, scanned & uploaded by the Bidder, to the e-tender website "www.etenders.kerala.gov.in" along with the Bid.

Note:* The detailed procedure for downloading / uploading the documents will be available in Help wizard & FAQ of the above mentioned Website.

Undertaking

(Bidder or each partner of JV/Consortium shall submit separate undertaking in support of this requirement)
*We <u>(name of bidder)/ (the Bidder/JV partner of bidding entity)</u> undertake and certify that final Liquidated Damages (LD) due to poor performance has been imposed to the maximum value of eligible LD innumber of packages out ofnumber of contracts completed in last 10 years (from 1st April, 2012 to bid submission date).
*We <u>(name of bidder) (the Bidder/JV partner of bidding entity)</u> undertake and certify that final Liquidated Damages (LD) due to poor performance, has not been imposed to the maximum value of eligible LD in more than 10% of contracts completed in last 10 years (from 1st April, 2012 to bid submission date). Place: Signed by:
Date:
(Name of authorized representative) Name of bidder Attested by:

^{*} fill and retain appropriate



COCHIN SMART MISSION LIMITED

Form TECH 2: Draft format for Undertaking on Rescind / Terminated contracts (NOT APPLICABLE FOR THIS PROJECT)

The following form is to be downloaded, particulars are to be filled, scanned & uploaded by the Bidder, to the e-tender website "www.etenders.kerala.gov.in" along with the Bid.

Note:* The detailed procedure for downloading / uploading the documents will be available in Help wizard & FAQ of the above mentioned Website.

<u>Undertaking</u>
(Bidder or each partner of JV will shall submit separate undertaking in support of this requirement)
I/We <u>(name of bidder) (the Bidder/JV partner of bidding entity)</u> undertake and certify that *not a single contract has been Rescind/ Terminated due to poor performance of our firm or *number of contracts were Rescind/ Terminated due to poor performance of our firm out ofnumber of contracts in hand of our firm during last 10 years (from 1st April, 2012 to bid submission date).
We (<u>name of bidder</u>) (the <u>Bidder/JV partner of bidding entity</u>) further undertake and certify that Rescind/ Terminated contracts due to poor performance of our firm are not more than 5% of contracts in hand during last 10 years (1 April 2012 to bid submission date).
Place: Signed by:
Date:
(Name of authorized representative)
Name of bidder
Attested by:
(Notary Public)

* fill and retain appropriate



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Form TECH 3: Draft format for Undertaking on Corporate Debt Restructuring

(NOT APPLICABLE FOR THIS PROJECT)

The following form is to be downloaded, particulars are to be filled, scanned & uploaded by the Bidder, to the e-tender website "www.etenders.kerala.gov.in" along with the Bid.

Note:* The detailed procedure for downloading / uploading the documents will be available in Help wizard & FAQ of the above mentioned Website.

Undertaking

(Bidder or each partner of JV will shall submit separate undertaking in support of this requirement)

I/We <u>(name of bidder)</u> (the <u>Bidder/JV partner of bidding entity)</u> undertake and certify that our firm (i) has not applied for Corporate Debt Restructuring (CDR) (ii) is not facing follow up action of CDR (iii) is not facing recovery proceedings from Financial Institutions and (iv) are not facing winding up proceedings or those under BIFR in the last **5 financial years** (2023-22, 2022-21, 2021-20 2020-19and 2019-18) till the date of bid submission.

Place: Signed by:			
Date:			
	(Name	of	authorized
	representa	ative)	
		1	Name of bidder
Signed by: Attested by			
Chartered Accountant/Auditor (Notary Public)			
:			

aforesaid Tender and

RFP FOR "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"



COCHIN SMART MISSION LIMITED

	Form of Bi	d Security
	TOTHI OF BI	u security
	(Bank Gua	arantee)
[Bank's Name	and Address of Issuing Branch or Of	fice]
Beneficiary:	Chief Executive Officer,	
	Cochin Smart Mission Limited (
	4th Floor, JLN Stadium Metro St Kochi 682017	tation, Kaloor
		Date:
BID GUARAN	TEE No.:	
This Deed of 0	Guarantee made this the day of	20XX by (Name of the Bank), having its
registered offi	ice at, and one of i	ts branches at (Address of the Branch)
(hereinafter ca	alled the Guarantor) in favour of Co	chin Smart Mission Limited,
(hereina	after called the beneficiary).	
WHEREAS M/	s (Name and A	ddress of the Entity participating in the tender)
having their ac	ddress/ registered Office at	(Address of
the Firm's regi	istered Office) (hereinafter called th	e "Tenderer") wish to participate in the Tender
No	for	of (supply / Erection / Supply & Erection
/ Work/other	s- specify the purpose) of	(Name of the material /
		chin Smart Mission Limited (hereinafter called
the "Benefician	ry") and	
WHEREAS an	EMD of Rs/- has to be subm	itted by the Tenderer for participating in the

WHEREAS the tenderer has requested the Guarantor for issuing a Bank Guarantee for Rs.

______(Amount of EMD) valid till ______(mention here date of validity of this Guarantee



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which will be days beyond initial validity of Tender) towards EMD payable to the
Beneficiary, and
WHEREAS the Guarantor has agreed to issue such Bank Guarantee to the Beneficiary as
hereunder mentioned:
We, (Name of the Bank and address of the Branch giving the Bank
Guarantee) having our registered Office at (Address of Bank's registered
Office) hereby give this Bank Guarantee No dated and do hereby
irrevocably undertake to pay immediately on demand, without requiring any previous notice and
without any demur, reservation, recourse, contest or protest and without referring to any other
sources including the Tenderer and without the beneficiary having to substantiate its demand, to
the beneficiary a sum not exceeding Rs (amount of EMD) (Rupees
) (in words) on behalf of the Tenderer. Guarantor agrees that
any demand in writing made by the authorised officials of the Beneficiary shall be conclusive as
regards the amount due and payable by the Guarantor under this Guarantee.
We, (Name of the Bank) further undertake to pay without
demur the aforesaid amount in lump sum on demand or such part there of as the beneficiary may
demand from time to time irrespective of the fact whether the said tenderer admits or denies
such claim or questions correctness in any court, Tribunal or Arbitration proceedings or before
any authority. The aforesaid guarantee will remain in force and we shall be liable under the same
irrespective of any concession or time being granted by the beneficiary to the tenderer and this
guarantee will remain in full force irrespective of any change of terms, conditions or stipulation
or any variation in the terms of the said tender.
This Bank Guarantee shall be valid and binding on this Bank upto and inclusive of
(mention here the date of validity of Bank Guarantee) and shall not be
terminated or affected by liquidation or winding up or insolvency or change in constitution of the
tenderer or for any other reason. This guarantee shall not be terminated by the guarantor under
any circumstances including change in the constitution of the Bank and our liability hereunder
shall not be impaired or discharged by any extension of time or variations or alterations made,
given, conceded with or without our knowledge or with or without consent by or between the
Tenderer and the beneficiary.
remacrer and the beneficiary.



COCHIN SMART MISSION LIMITED

OT WITHSTANDING anything contained hereinbefore, our liability under this Guarantee
estricted to Rs (amount of EMD) (Rupees (in words). Ou
uarantee shall remain inforce till (60 days after the date of validity of the
sid/tender). Unless demands or claims under this Bank Guarantee are made to us in writing o
r before (date should be days over and above the validity period of BG), all right
f Beneficiary under this Bank Guarantee shall be forfeited, and we shall be released an
ischarged from all liabilities there under.
Place:
Signature of the Bank's Authorized
Date: Signatory with Official Seal



COCHIN SMART MISSION LIMITED

Declaration Regarding Deemed Export Benefits

(NOT APPLICABLE FOR THIS PROJECT)

The following form is to be downloaded, particulars are to be filled, scanned & uploaded by the Bidder, to the e-tender website "www.etenders.kerala.gov.in" along with the Bid.

Note:* The detailed procedure for downloading / uploading the documents will be available in Help wizard & FAQ of the above mentioned Website.

Declaration Regarding Deemed Export Benefits /
Customs/Excise Duty Exemption For Materials / Construction Equipment Brought
For The Works

	Name of the P	roject:
	(Bidder's Name	and Address)
	•••••	
To:		tive Officer, rt Mission Limited (CSML), N Stadium Metro Station, Kaloor
	Kochi 6820	•
	Dear Sir,	
		CERTIFICATE FOR IMPORT (PROCUREMENT OF GOODS/CONSTRUCTION EQUIPMENT).

- 1. We conform that we are solely responsible for obtaining deemed export benefits / customs/excise duty waivers which we have considered in our bid and in case of failure to receive such waivers for reasons whatsoever, the employer will not compensate us.
- 2. We are furnishing below the information required by the Employer for issue of the necessary Project Authority certificates in terms of the Government of India Central



COCHIN SMART MISSION LIMITED

Excise Notification No. 108/95 and Customs Notification No. 85/99 & export & import policy of the Government of India.

3. The goods/construction equipment for which certificates are required are as under:

Items	Make/Bra nd Name	Capacity (where	Quantity	Value	State whether it will be	Remarks regarding justification for the
		applicable)			procured	quantity and their
					locally or imported (If so	usage in works.
					from which	
					country)	
Goods	T	т.		ı	T	
[a]						
(b)						
(c)						
[b]Others						
Construction	n equipmen	t			l	
(a)						
(b)						
(c)						

- 4. We agree that no modification to the above list is permitted after bids are opened
- 5. We agree that the certificate will be issued only to the extent considered reasonable by the Employer for the work, based on the Bill of Quantities and the construction programme and methodology as furnished by us along with the bid.

Section IV. Bidding Forms

RFP FOR "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"



COCHIN SMART MISSION LIMITED

6.	We conform that the above goods will be exclusively used for the construction of the
	above work and construction equipment will not be sold or otherwise disposed of in
	any manner for a period of five years from the date of acquisition.

Date:	Signature
Place:	Printed name
	Designation
	Common seal

Note: i) This certificate will be issued within 60 days of signing of contract and no subsequent changes will be permitted.

ii) The format of requirement listed above may be modified, if necessary, in terms of the export & import policy of Government of India in force.



Form PRE-BID: Format of sending pre-bid queries

NIT Reference No: XX

Bidder's Request For Clarification					
Name and complete official address of Organization submitting query / request for clarification Fax: Email:					
Sr. No.	Clause No.	Page No.	docu	Content of Bid Change Requested/ Clarification document Requiring required Clarification	
1					
2					
3					
4					
5					

Signature:

Name of the Authorized signatory:

Company seal:

Date and Stamped

Note: Bidder(s) are requested to send the queries in PDF with Sign and Company Seal and also in MS Word / Excel for making consolidation process easy.

COCHIN SMART MISSION LIMITED

Format for Declaration by the bidder for not being Blacklisted / Debarred (To be submitted on the Letterhead of the Bidder)

(To be provided by Bidder/Lead bidder and all members of Consortium in separate letters)

ietters)
Date: dd/mm/yyyy
То
Chief Executive Officer,
Cochin Smart Mission Limited (CSML)
4th Floor, JLN Metro Station, Kaloor, Kochi - 682 017, India.
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
RFP Reference No: XX
Dear Sir,
I, authorized representative of, hereby solemnly confirm that the Company is not debarred / black-listed by any Central/State Government/ PSU entity
in India or similar agencies globally for unsatisfactory past performance, corrupt, fraudulent or any other unethical business practices or for any other reason as on last date of submission of the Bid. In the event of any deviation from the factual information/ declaration, CSML reserves the
right to reject the Bid or terminate the Contract without any compensation to the Company.
Thanking you,
Yours faithfully,
Signature of Authorized Signatory (with official seal)
Date:
Name:
Designation:
Address:



Гelephone & Fax :
E-mail address
Format for Power of Attorney
[To be executed on non-judicial stamp paper of the appropriate value in accordance with relevant Stamp Act. The stamp paper to be in the name of the company who is issuing the power of attorney]
To know all men by these presents that, I,, holding the post of and competent authority of (the Bidder/Lead Member of the Joint Venture/Consortium) do hereby constitute, appoint, authorise and nominate
as previously mentioned) have executed these presents on this day of at
For(Bidder/ Lead Member)
Competent Authority
Accepted,

(Company Seal) (Name)

RFP FOR "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"



COCHIN SMART MISSION LIMITED _____ (Signature) (Name, Title and Address of the Attorney) Note: The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure. The Power of Attorney shall be provided on a stamp paper of Rs.200/- and above The Power of Attorney should be supported by a duly authorized resolution of the Board of Directors of the Bidder authorizing the person who is issuing this power of attorney on behalf of the Bidder. **CERTIFICATE AS TO AUTHORISED SIGNATORIES** the Company Secretary of certify that_____ who signed the above Bid is authorized to do so and bind the company by authority of its board/governing body. Date: Signature:



COCHIN SMART MISSION LIMITED

Format for Power of attorney in case of Consortium Lead Member has to submit the Power of Attorney in favour of Authorized signatory in below given format in case of Consortium.

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

POWER OF ATTORNEY FOR LEAD MEMBER BY CONSORTIUM MEMBER

(To be printed on Non-Judicial Stamp paper of appropriate value and duly notarized) To know all men by these presents that we parties whose details are as follows; 1. M/s ______, a Company/LLP/Partnership/Proprietorship incorporated under the provisions of the Companies Act, 1956/Limited Liability Partnership Act, 2008/The Partnership Act, 1936, and having its registered office/principal place of business at ______ (hereinafter referred as "______", which the term shall unless otherwise repugnant to the context shall mean and include all its successors and permitted assigns) and represented by its 2. M/s ______, a Company/LLP/Partnership/Proprietorship incorporated under the provisions of the Companies Act, 1956/Limited Liability Partnership Act, 2008/The Partnership Act, 1936, and having its registered office/principal place of business at ______ (hereinafter referred as "_____", which the term shall unless otherwise repugnant to the context shall mean and include all its successors and permitted assigns) and represented by its Have entered into a Joint Venture/Consortium agreement for the purpose of request for qualification/proposal/securing the work of ______ vide tender No: _____ and with our principal place of business at _____ (hereinafter referred as "_____", which

the term shall unless otherwise repugnant to the context shall mean and include all its

successors and permitted assigns)



COCHIN SMART MISSION LIMITED

We, the above said parties, through this power of attorney mutually agrees to hereby
constitute, nominate and appoint "", who is the lead member of the JV/Consortium as
our duly constituted Lawful Attorney (hereinafter referred as "Attorney/Lead Member") to
exercise all or any of the powers for and on behalf of the Joint Venture Company/Consortium
Members in regards to the Specification No: the bids for which have been invited
by the Cochin Smart Mission Limited (herein after referred to as "CSML")

- a. To submit proposal and participate in the above-mentioned bid specification of CSML on behalf the "Consortium/ Joint venture Members".
- b. To negotiate with the Purchaser the terms and conditions for award of the contract pursuant to the above-mentioned bid and to sign the Contract with CSML for and on behalf of the "Consortium / Joint venture Members".
- c. To do any other act or submit any document related to the above.
- d. To receive, accept and execute the contract for and on behalf of the "Consortium / Joint venture Members".
- e. To authorise any person, employee or otherwise to represent the Lead Member and Consortium/JV for doing the aforesaid
- f. In the event of an order placed on the Joint Venture/Consortium the work shall be executed as per the terms and conditions of the Purchase Order issued and the Agreement executed between CSML and the Joint Venture.

It is expressly understood that this Power of Attorney shall remain valid, binding and irrevocable until the completion of the tender or till the completion of the tenure of contract to be executed between the Joint Venture/Consortium and Cochin Smart Mission Limited, if tender is awarded in favour of the JV/Consortium.

We hereby agrees to ratify all the acts, deeds and things lawfully done by the Attorney/Lead Member and its authorised person/s pursuant to this Power of Attorney and that all acts, deeds and things done by above mentioned Attorney/Lead Member shall always be deemed to have been done by us.

IN	WITNESS	THEREOF,	the	Members	constituting	the	Joint	Venture/Consortium	as
pre	eviously me	entioned ha	ve ex	recuted the	ese presents	on t	his	day of under	the
Cor	mmon Seal((s) of their co	ompa	inies.					

For	For



COCHIN SMART MISSION LIMITED

Authorized Signatory	Authorized Signatory
Witnesses:	
1.	
2	

Note:

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



COCHIN SMART MISSION LIMITED

Format of Consortium Agreement

DRAFT MEMORANDUM OF UNDERSTANDING EXECUTED BY MEMBERS OF THE CONSORTIUM

[To be executed on non-judicial stamp paper of the appropriate value (Rs 200/-) in accordance with relevant Stamp Act. The stamp paper to be in the name of the company who is issuing the power of attorney& it has to be Notarised]

This Memorandum of Understanding (MoU) entered into this day of [Date] [Month] 2023 at [Place] among------(hereinafter referred to as " ") and having office at [Address], India, as Party of the First Part and ------(hereinafter referred as " ") and having office at [Address], as Party of the Second Part and -------(hereinafter referred as " ") and having office at [Address], as Party of the Third Part.

The parties are individually referred to as Party and collectively as Parties.

WHEREAS CSML, has issued a Request for Proposal dated [Date] (RFP) from the Applicants interested in "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)" under Smart City Mission":

AND WHEREAS the Parties have had discussions for formation of a Consortium for bidding for the said Project and have reached an understanding on the following points with respect to the Parties' rights and obligations towards each other and their working relationship.

AS MUTUAL UNDERSTANDINGOF THE PARTIES, IT IS HEREBY AGREED AND DECLARED AS FOLLOWS:

(a)The purpose of this Agreement is to define the principles of collaboration among the Parties to:

Submit a response jointly to Bid for the RFP "-----" under Smart City Mission as a Consortium.

Sign Contract in case of award.

Provide and perform the supplies and services which would be ordered by the Authority pursuant to the Contract.

- (b) This Agreement shall not be construed as establishing or giving effect to any legal entity such as, but not limited to, a company, a partnership, etc. It shall relate solely towards the Authority for ""PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)" under Smart City Mission for and related execution works to be performed pursuant to the Contract and shall not extend to any other activities.
- (c)The Parties shall be jointly and severally responsible and bound towards the Authority for the performance of the works in accordance with the terms and conditions of the RFP document, and Contract.
- (d)----- (Name of Party) shall act as Lead Member of the Consortium. As such, it shall act as the coordinator of the Party's combined activities and shall carry out the following functions:

To ensure the technical, commercial and administrative co-ordination of the work package



COCHIN SMART MISSION LIMITED

To lead the contract negotiations of the work package with the Authority.

The Lead Member is authorized to receive instructions and incur liabilities for and on behalf of all Parties.

In case of an award, act as channel of communication between the Authority and the Parties to execute the Contract

(e)Each member of the Joint Venture agrees to place at the disposal of the Joint Venture, the benefit of all its experience, technical knowledge and skill, and shall in all respects bear its share of responsibility and burden of completing the contract. The parties herein shall be responsible for physical and financial distribution of work as under.

arty A or Lead Partner: Financial responsibility:(Minimum 51%)
rofit / loss sharing ratio:	
arty D. Financial recognishility.	
arty B : Financial responsibility:	
rofit / loss sharing ratio:	
arty C : Financial responsibility:	
rofit / loss sharing ratio:	

- (f)All rights, interests, liabilities, obligations, risks, costs, expenses and pecuniary obligations and all net profits or net losses arising out of the Contract shall be shared or borne by the Parties in the above Proportions.
- (g)The members in the proportion as mention in clause-v shall contribute sufficient Initial fixed capital for timely execution of the project including commissioning & operating period as per the contract.
- (h)That the Parties shall carry out all responsibilities as Developer in terms of the Project Agreement.
- (i) That the broad roles and the responsibilities of each Party at each stage of the Bidding shall be as below:

Party A:

Party B:

Party C:

(j)That the broad roles and the responsibilities of each Party at each stage of the project execution shall be as below:

Party A:

Party B:

Party C:

- (k)That the Parties affirm that they shall implement the Project in good faith and shall take all necessary steps to see the Project through expeditiously.
- (l)That this MoU shall be governed in accordance with the laws of India and courts in Kerala shall have exclusive jurisdiction to adjudicate disputes arising from the terms herein.

Section IV. Bidding Forms

RFP FOR "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"



COCHIN SMART MISSION LIMITED

In witness whereof the Parties affirm that the information provided is accurate and true and have caused this MoU duly executed on the date and year above mentioned.

(Party of the first part)	(Party of the second part)(Party of the third par		
Witness:			
i.			

ii.



COCHIN SMART MISSION LIMITED

All bidders are requested to submit following undertaking in their letter head duly signed by the authorized signatory of Bidder, along with the technical proposal.

[The Bidder shall fill in this Form in accordance with the instructions indicated. No alterations to its format shall be permitted and no substitutions shall be accepted.]

Format for Undertaking on Award criteria

Undertaking

To Chief Executive Officer Cochin Smart Mission Limited (CSML) 4th Floor, JLN Stadium Metro Station, Kaloor, Kochi - 682 017, India.

Sub: Bid for "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"

NIT Reference No: XX
Dear Sir, I / We
Signature of the Tenderer
With Sea
Place:
Date:
(Name of authorized representative) Name of bidder Attested by

^{*} fill and retain appropriate

Τo

Chief Executive Officer

* fill and retain appropriate

Cochin Smart Mission Limited (CSML)

RFP FOR "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"



COCHIN SMART MISSION LIMITED

All bidders are requested to submit following declaration in their letter head duly signed by the authorized signatory of Bidder, along with the technical proposal.

[The Bidder shall fill in this Form in accordance with the instructions indicated. No alterations to its format shall be permitted and no substitutions shall be accepted.]

Format for Declaration on Operation & Maintenance Charges

Declaration

th Floor, JLN Stadium Metro Station, Kaloor, Kochi - 682 017, India.
Sub: Bid for "pan city smart led streetlights in kochi corporation under smart cities mission, (ochi (third call)"
NIT Reference No: XX
Dear Sir,
/ Wehaving the registered office atdeclare that the total amount of O&M charges quoted for 5 years is greater than 10% of the total bid value.
/ We also understand that the bid will be summarily rejected if this criterion is not found satisfied during opening of the Financial Bid.
Signature of the Tenderer With Seal
Place:Signed by:
Date:
(Name of authorized representative) Name of bidder Attested by:



COCHIN SMART MISSION LIMITED

DECLARATION FORM

(To be submitted on the Letterhead of the responding firm)

Date:
То
Chief Executive Officer Cochin Smart Mission Limited (CSML) 4th Floor, JLN Stadium Metro Station, Kaloor, Kochi - 682 017, India.
Sub: Bid for ""
NIT Reference No: XX
Dear Sir,
I / We

Signature of the Tenderer With Seal



Section V. Works Requirements /
Employer's Requirements & Technical
Specifications



COCHIN SMART MISSION LIMITED

Section V. Works Requirements / Employer's Requirements & Technical Specifications

Introduction:

Cochin Corporation intends to replace existing conventional lights on streetlights and lighting Masts with Smart LED streetlights having smart communication and controls. Because of this, substantial energy saving can be achieved by replacing the conventional lighting with LED lighting. LED modules have very long life running as high as 50,000 hours, hence by installing LED based lights there is good scope of reducing maintenance cost. Also implementing Smart communication and controls, better asset management and faster rectification of faults can be achieved. In view of this Cochin Corporation invites proposals from leading lighting companies / lighting fixture manufacturers / experienced Contractors on the Capex model.

Smart lighting concept:

Streetlights are a major component of the infrastructure of a city and provides safety as well as aesthetics to the city roads. Well-designed public lighting solutions provide the essential safety to enjoy the cityscape and also deter crime and vandalism.

The standard referred in the document shall be applied for the road lighting design, namely guidance of the factors of "average lighting level" and "uniformities" to be maintained according to the classification of the roads. Contractor is required to provide the lighting system along with Effective Asset Management System for Road Lighting with LED lights on existing light poles coming under Cochin Corporation. In addition to the street lighting, existing conventional flood light fixtures installed on high mast poles at the major junctions should be replaced with suitable wattages LED type street light fixtures

The total quantity of existing conventional Luminaire in the project area is approximately 41,000 numbers. The actual quantity of lamps needs to be surveyed by the successful bidder by



COCHIN SMART MISSION LIMITED

conducting a site survey and submit the report and carry out the works. The bidder needs to give a proposal which will meet the technical and functional requirements mentioned in this RFP. The conventional streetlights should be converted to LED and existing LED lamps should be kept as same.

Principles of LED lighting:

LED light fixture as well as Light Management System should be such as to provide excellent Illumination on roads while keeping the energy efficiency in mind. The LED luminaire should have an output of minimum 150 lumens per watt. While designing the lighting system undermentioned guidelines shall be followed.

- a) No Light Pollution
- b) Free Public movement
- c) Hazard-free lighting for motorist as well as pedestrians
- d) Economic viability Long Life solution / Low Maintenance
- e) Experiential and attractive lighting
- f) Green solution with respect to environment.

Lighting control management system is required to control LED street lights as a group under CCMS panels.

System should have capability to schedule the operations of luminaires and accordingly control in circuit wise groups control. Luminaires may be manually controlled through switching panel in case of emergency.

TECHNICAL SPECIFICATION FOR STREETLIGHT

S.No	Typical specifications of LED street lights	Supporting document	
1	Bright white LEDs shall be used in the luminaries. The LEDs shall be SMD type (Not COB type LEDs)	LED Technical Data sheet	



2	Life span of LEDs used in the Luminaire shall be more than 50,000 hours at 70% light output		LM-80 / IS16105, L70 & TM 21 Test Report test report including technical data sheet of LED Chip
3	All the LED chips shall be with peanut lens made of PMMA/PC to provide a good streetlight distribution. The lens shall be mechanically fixed (not glue pasted)		Confirmation
4	Nominal sys Wattage: Su as specified in BOQ	itable Wattage with minimum lumens	LM-79 report
5	Colour rendering index (CRI) of the LEDs used in the luminaire shall be greater than 70		LM-80 / IS16105, L70 & TM 21 Test Report test report including technical data sheet of LED Chip
6	LED chip (Make and country of manufacture to be specified)		LM-80 / IS16105, L70 & TM 21 Test Report test report including technical data sheet of LED Chip
7	LED chip efficacy shall be more than 150 Lumens/watt at Tj 25° C		LED Technical Data Sheet
8	Junction Temperature (Tj) ambient temperature of 2	Junction Temperature (Tj) should be <85°C with respect to mean	
9		Photo Biological Safety Report for the LEDs as per IEC 62471 and assessment of blue light as per IEC/TR 62778 – Ed. 1.0	
10	Colour temperature of the nominal 5000K to 6000K	Colour temperature of the luminaire shall be in the range of	
11	Power factor >	0.95	LM-79 report
12	Nominal System Sh Efficacy (lumen/watt)	nall be >150 lumens/watt	LM-79 report
13	CRI of Luminaries >	70	LM-79 report
14	Lumen depreciation for rated life <30%		LM 80 Report to be submitted and Manufacturer has to self- certify
15	The luminaire light output (lumen) shall be constant. The voltage variations / fluctuations in the specified voltage range shall not impinge upon the lumen it produces. Maximum +/-5% is allowed throughout in the input operating voltage range		LM-79 report (Self Declaration can also be used for bidding purpose)



			1
16	Operating voltage: 110 V to 320V universal electronic driver with internal surge protection of 4 KV (Applicability IS 15885, Driver Safety 16104-1/2)		NABL accredited lab report (Driver data sheet with BIS test report & BIS certificate can be accepted for the bidding purpose
17	Total Harmonic Distortion: < 10% THD - Test Method IEC:610003-2		NABL accredited lab report
18	LED Drive current	>=350 mA<1200 mA	LM-79 report - (Product data Sheet, Driver data sheet with BIS test report &BIS certificate can be accepted for the bidding purpose)
19	LED driver efficiency	> 85%	LM-79 report NABL Accredited Lab Report (Product data Sheet, Driver data sheet with BIS test report &BIS certificate can be accepted for the bidding purpose)
20	Heat dissipation / heat sink: Well-designed thermal management system with defined heat sink		NABL accredited lab report. (Manufacturers Self Declaration can be accepted for the bidding purpose)
21	The luminaire housing shall be made up of corrosion free High Pressure Aluminium die cast thus conforming the luminaire to minimum IP-66 for all wattages and safety as per IEC 60598/IS 10322. (Only single housing fixtures allowed).		NABL accredited lab report - (Luminaire manufacturer's data Sheet/Manufacturers Self Declaration can be accepted for the bidding purpose)
22	The luminaire shall be equipped with distortion free, clear, heat resistant, toughened, UV stabilized glass / Poly-carbonate cover in the front fixed to the die cast Aluminium frame which shall be		NABL accredited lab report - (Manufacturers Self Declaration can be



	screws for areas not inside IP66 rated chamber. Zinc plated steel or equivalent screws can be applied inside sealed chambers.		accepted for the bidding purpose)
23	The luminaire shall be built in such a way that it can withstand wind speed of 150 kmph. (Impact resistance>=IK07)		NABL accredited lab report - (Manufacturers Self Declaration can be allowed for bidding purpose).
24	Frequency	50Hz +/- 3%	
25	Operating temperature	Range: 0°C to +50°C	NABL accredited lab report - (Internal type test report can be allowed for bidding purpose)
26	Protections	IP66 for all type of lamps to be installed Surge protection 4 kV, IEC61000-4-5	NABL accredited lab report - (Internal type test report can be allowed for bidding purpose).
27	Working humidity	10% to 95% RH	
28	Conformation standards of luminaire (Test reports of luminaire)	The luminaire should conform to IEC 60598/ IS:10322 The luminaire should be tested as per IEC 60598-2-3:2002/ IS:10322 Part 5 Sec-3 standards and following test reports should be submitted: Thermal Test, Ingress Protection Test, Electrical / Insulation Resistance Test, Endurance Test, Humidity Test, Photometry Test (LM79 report), Vibration Test	From NABL Certified TPL Test report TEST REPORT as per IS:10322-part 5 Sec-3 /IEC:60598-2-3. (Internal type test report can be allowed for bidding purpose).
29	Finish	Aesthetically designed housing with corrosion resistant polyester powder coating	Self - Declaration
30	Luminaire configuration /	Side entry type. Shall consist of separate optical and control gear compartments.	Self - Declaration
31	Compliance	RoHS/CE/ERTL/ERDI	Confirmation
32	Additional Surge Protection	Additional Surge protection of minimum 10 kV/ 5 kA to be separately installed within each fixture.	As per ANSI C 136.2-2014 Confirmation

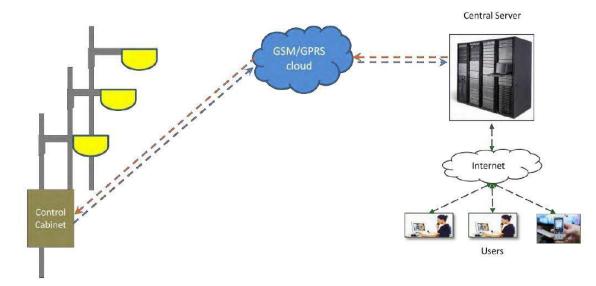


COCHIN SMART MISSION LIMITED

33	Mounting height	7m from road level or appropriate	Confirmation
	of Streetlight		

Centralized control and light monitoring system

A schematic diagram of centralized control and light monitoring system is shown as below.



- 1. Centralized Control and Monitoring System (CCMS) shall have a webserver to receive all data from the streetlight controllers and voltage controllers.
- 2. It should be able to communicate with any Controller collectively to control and monitor.
- 3. It should register all fault conditions through the instantaneous alert messages sent by the controller equipment.
- 4. Bulk messaging facility to be given, so that any common changes can be effected into the controller equipment.
- 5. Reports such as Energy Saving report, Lamp Failure report, etc. should be generated on a daily basis from the readings received from the controller equipment. Asset Management



COCHIN SMART MISSION LIMITED

Software showing defective units, if any and other user defined reports should also be available in the dashboard. In User-defined reports, mandatory formats of routine MIS reports are to be made available. The formats will be shared to the successful bidder after awarding the contract.

- 6. Different user authorization levels should be settable, and the central server should be capable of handling high traffic.
- 7. GIS Mapping shall be done as part of the survey for covering all streetlights and switching points and the details of each lamp shall be viewable in the web application software through a Google-map interface.

Technical requirement

Application	Street lighting
Rated voltage (Vref)	270 volts AC (110V-320V Voltage Range)
Rated frequency	50Hz
Daily Usage	Minimum 12 hours

However, the materials should be robust enough to withstand and work satisfactorily with the following system variations: Voltage: 140-270 V RMS. Frequency: 50Hz +/-3%.

Street lighting management system:

The required Street Lighting Management System (SLMS) shall be suitable for all kinds street lighting projects. The system shall be cabinet based with capability to monitor and manage the complete street light infrastructure from one central place.



COCHIN SMART MISSION LIMITED

Key Features of an Effective Energy-Efficient Street Lighting Systems shall include but not restricted to:

Features	Benefits
Proper pole height and spacing	Provides uniform light distribution, which improves appearance for safety and security Meets recommended light levels Minimizes the number of poles, reducing energy and maintenance costs
High lamp efficacy and luminaire efficiency	Minimizes energy cost
Life of the luminaire and other Components	Reduces lamp replacement costs
Cost effectiveness	Lowers operating cost
High lumen maintenance	Reduces lamp replacement costs
Good colour rendering	Helps object appear more natural and pleasing to the public Allows better recognition of the environment, improves security
Short lamp restrike	Allows the lamp to quickly come back after a power interruption
Proper light distribution	Provides required light on the roads and Walkways
Proper cut-off	Provides adequate optical control to minimize light pollution
Minimizing light pollution and Glare	Reduces energy use
Automatic shutoff	Saves energy and maintenance costs by turning lamps off when not needed

The system can be turnkey solutions for centrally managed, energy saving streetlights. The system shall have extremely high up time and enables fast reactions to fault states. The system



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shall allow tailoring and be easily upgradable by adding new modules with additional functionalities for future scalability.

The hardware modules installed in control cabinets and full system overview is provided via web browser-based interface.

All communication between central controller and CCMS Panel shall be through wireless communication. NbIoT/RF/GSM/GPRS/3G/4G communications shall be used. No additional cable shall be required for communication.

Full proof communication is to be provided between switching panel and central server. Web based System should exercise complete control over the streetlights and thus be able to monitor their functions / operations such as ON/OFF, Scheduling, and Monitoring.

A centralized control solution shall be easy to implement that requires less equipment and easier installation and essentially provide following facilities:

- 1. Automatic (with a timer), Remote and Manual Switching Options Remote Energy Measurement
- 2. Near real-time monitoring
- 3. Alarms and Report generation.
- 4. Emergency override locally and remotely.
- 5. Web based User Interface with Integrated Visual maps. Data security and secured system access.
- 6. Prevent unauthorized physical access to the street light control box.
- 7. System integration with third party open protocol application software for smart city requirements.
- 8. System should be wireless circuit wise group control of the streetlights ensures an extremely high up-time and enables fast reaction to fault states.
- 9. The hardware modules installed in control cabinets and a full system overview is provided via the Web browser interface. Through a secure connection the system is accessible from



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- any location and provides a fast assessment of the system's status, alarms, and other events.
- 10. The streetlight automation system shall control and monitor streetlights remotely via wireless communications as the primary communications network to the server. The system shall be easily scalable to include streetlights from a small area to a citywide system rollout on the same platform

Scope of work & Major activities:

The following are the major activities for the project:

- Conducting survey for finding the number of existing streetlights under Cochin corporation
 and designing replacement of non-LED lamps with suitable wattage LED lamps for Smart
 streetlighting system as mentioned in this RFP. Survey has to be done at the beginning of the
 project by the Contractor to ensure the lux level of the corresponding road supported by
 lighting calculation reports. Existing LED lamps shall not be replaced.
- 2. Replacement of conventional, non-LED lamps and Supply, installation, testing and commissioning of LED street light fixtures on existing light poles/ electrical posts including bracket with LED luminaire, CCMS panels and other necessary components for Smart streetlighting system in Cochin corporation as per the technical specifications of this RFP.
- 3. Replacement of conventional, Non-LED type High Mast lights with equivalent wattage of Smart LED lighting fixtures in CORPORATION area of Kochi and control the lights from CCMS panel and as per the technical specifications of this RFP.
- 4. Design, Supply and implementation of street Light Management system software and integration of Street Light Management Software with Integrated Command and Control Centre.
- 5. The bidder has to submit the complete implementation plan along with the name of the official with contact number and duties, who has to be deputed in the site for execution of project and after execution maintain the AMC activities up to the end of the project period.



- 6. CONTRACTOR shall have to establish a well-furnished site office in Ernakulam for his supervisory staff and for project meetings with Employer/Engineer. Site office shall be approved by the Employer.
- 7. Providing suitable earthing of CCMS panels and lighting control panels for optimum performance and safety of LED street lighting fixtures.
- 8. Installation, testing and commissioning of all smart ICT components and software mentioned in technical specifications of this RFP.
- 9. The serial numbers on each lighting fixture and poles assigned for GIS mapping shall be as per the approval from the AUTHORITY...
- 10. The bidder shall be fully responsible for operation, maintenance, and monitoring of the project for a period of 5 years after operational acceptance of the Project.
- 11. All the machinery and equipment required for implementation of the project is to be arranged by the bidder, COCHIN CORPORATION has to provide only authorization and necessary clearance and permission if required.
- 12. The quality of the luminaries/ Lux level will be maintained by the bidder throughout the project life. The bidder has to follow all necessary safety guidelines/directions issued by Government of Kerala/ Corporation from time to time.
- 13. The bidder will have full responsibility of 7 years (Seven years) replacement/repair warranty (starting from the commissioning and initial handing over date whichever is later) of all LED's/fixtures. The bidder also responsible for replacement/repair warranty (starting from the commissioning and initial handing over date whichever is later) for all other items such as feeder pillar cum CCMS panels, communication devices & system, cables, connectors, etc. during the entire contract period including 5 years (Five years) of Operation and Maintenance Period (O&M period inclusive of 2 year's DLP period). He will pass on the warranty to the client for the remaining period of parts (Balance 2 years after O&M period) beyond contract period.



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As part of the warranty obligation, Bidder shall maintain 5% of the supplied quantity of LED streetlights of each category as buffer stock at their site storage location during O&M period and two years after the O&M period, to replace faulty streetlights for avoiding delay in replacement during the warranty period

14. In case of unsatisfactory performance and/or breakdown due to defective design, workmanship of material, the equipment's of components, or any part thereof, so found defective/failure during warrantee period shall be forthwith repaired or replaced free of cost, to the satisfaction of Engineer in charge. Failures/defective shall include failure/ deterioration of LEDs in terms of performance like guaranteed luminous efficiency, high junction temperature, and abnormal lamp lumen depreciation, deterioration in LED including its lens, driver unit and quality of light. During the maintenance period, supplier shall ensure to repair/ replace the defective systems within 96 Hours of receipt of the complaint failing which Cochin Corporation shall be impose penalty @ of Rs.10/- per light per day. The penalty amount so imposed shall be deducted from the due payment / security deposit available with Cochin corporation. Separate record of the Complaints shall be maintained by the COCHIN CORPORATION. The complaint shall be conveyed by the COCHIN CORPORATION through mail/fax. To avoid the penalty, it is suggested that supplier may maintain extra stock for material in the store of COCHIN CORPORATION as necessary. The vendor shall also stand guarantee against lumen depreciation beyond 30%. Vendor shall ensure that LED module/array shall deliver at least 70% of initial lumens, when installed for a minimum of 50,000 hours, failing which vendor shall carry out necessary rectification free of cost to the entire satisfaction of COCHIN CORPORATION. In case of the bidder fail to maintain the luminaries output as per specification mentioned in document. COCHIN CORPORATION has right to repair the defective items from the other agency at the site of the successful bidder and the payment of the defective material will be deducted from the bidder's monthly payment/performance security deposited. The bidder will be fully responsible for all kind of theft in the project.



- 15. Arranging factory inspection of equipment if needed as per relevant standards.
- 16. Packing and transportation from the manufacturer's works to the Site including insurance.
- 17. Receipt, storage, preservation and conservation of equipment at the site.
- 18. Pre-assembly, if any, erection, testing and commissioning of all the equipment.
- 19. Reliability tests and performance and guarantee tests on completion of commissioning,
- 20. Labeling of information shall distinctly and indelibly be marked on the housing like, Year of Manufacturing, Batch no., Serial no., Name of manufacturer, Rated wattage and Voltage (Input) & rated Lumen.
- 21. Undertake measurement of the energy usage and lighting level of the street lighting segment after successful installation of the project and the document should be provided along with the tender bid.
- 22. Operation & Maintenance of the Street Light System and High Mast lighting system in the project area, where in all responsibility of the switching point, control Panels and Lighting Point, including the communication hardwares shall be extended to be covered within the scope of Bidder for the project life. Other components like power cables, damaged poles etc shall be replaced by bidder as per the SOR.
- 23. The installation of the project shall be done in 7 months and the Operation and Maintenance period shall be 5 years from the date of successful completion of the commissioning. The Operation and Maintenance period includes two-year DLP period.
- 24. The Bidder shall maintain Call Center to attend to complaints received by phone calls, mails, faxes, SMS etc. It shall have permanent employees and vehicles to rectify complaints, routine maintenance etc. on 24x7 basis and will daily submit the reports of switching points in Command Centre.
- 25. The Control System/Center being located centralized shall be operated 24x7 at the designated location to be prescribed by COCHIN CORPORATION to always remain accessible to staff of COCHIN CORPORATION.



- 26. The bidder shall maintain the defined minimum Storage Space within Kochi for storage of standby LED Lighting Fixtures of a minimum 5% of the installed of LEDs each type based on all types of installations, bidders shall be invited to offer suitable fixtures to achieve the defined Lux Levels broadly on the lines of National Lighting Code.
- 27. The bidder will be fully responsible for all kind of theft.
- 28. After a successful completion of project all kind material/ accessories installed by bidder during project will be property of the COCHIN CORPORATION.
- 29. Supply of Luminary fixtures shall be as per approved specifications.
- 30. Replacement of existing conventional type of high mast system with LED fixtures with having equivalent system lumen output of the existing lights and lighting system control through CCMS panel.
- 31. Existing LED fixtures (but not to be replaced under this project) will have to be included in lighting system control through CCMS panel where these existing LED lights are in the same circuit/road coming within the scope of work and to be configured in IC4.
- 32. Civil foundations and mounting arrangement for Control panel and junction box etc shall be done and coming under the responsibility of the contractor.
- 33. Liaison with Central/state Government Departments/KSEB/ CEIG or any other authorities concerned for matters like work entrustment, vendor approvals, drawing approvals, PTCC, TA&QC approvals and any other matters connected with the work. The approvals shall be obtained within the specified time for successful completion of work for all matters including obtaining approved designs & drawings, and commissioning of the Project including all incidental costs incurred thereon. Cochin Corporation, however, will provide all the required administrative supports to the contractor in this regard and also would reimburse to the Contractor all the statutory charges paid to the departments like KSEB/CEIG/Telecom etc on production of official receipts thereon.
- 34. Liaison with Kerala State Electricity Board (KSEB) for approval of technical specifications, materials, inspection, testing and calibration of smart energy meters, quality control, testing



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and commissioning of newly installed equipment, total responsibility for the completeness of the project including erection testing and commissioning.

- 35. Submission of QAP and Test certificates.
- 36. Arranging inspection of the materials by the EMPLOYER / EMPLOYER representative
- 37. All the materials installed shall be tested at site and installed after SAT.
- 38. All materials /machinery/items used in the subject package shall be provided according to specification given herein. All electrical items shall be supplied from the "List of Preferred makes". Prior approval from Owner shall be taken for the equipment/ items not available in the list.

Submission of technical documents:

Up on award of contract, the contractor has to submit the Guaranteed Technical Particulars of all equipment for approval.

Factory inspection:

Upon approval of Guaranteed Technical Particulars of LED fixtures, CCMS etc, the contractor has to arrange factory inspection by AUTHORITY or its representative / KSEB with relevant tests of items which are to be done prior to dispatch of materials. All the cost related to Factory Inspection and test of items shall be borne by the successful bidder

Material dispatch and storage of materials.

The items which pass the relevant factory tests shall be dispatched to the site with proper packaging and the materials are to be unloaded with utmost care. The materials received at site

Contractor

Procuring Entity / Employer



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shall be stored at store maintained by the Contactor. Storage and safe custody of materials are to be the responsibility of the contractor.

Installation:

Upon obtaining site clearance for installation of light on poles, the Contractor will start the installation work. The contractor has to safely dismantle the old conventional fixtures and brackets after obtaining permission form KSEB and deposit them at stores decided by corporation in as-on-site condition and get receipt of same.

Post Installation check:

Once installation in any division is completed, the illumination levels on various roads shall be checked by Engineer In charge / for each road and verify the same as per tender guidelines. The circuit, panel, software, command and control, working of web applications, SMS messages, mobile apps shall be checked by Engineer In charge / as per tender guidelines.

Time frame:

Total time for supply, installation, testing and commissioning of LED streetlights, CCMS and their respective foundation shall be 7 months from the date of signing of agreement. Thereafter two-year Defect Liability Period along with operation and maintenance period of 5 years will start. Hence total period of contract shall be 5 years plus 7 months. However, if the contractor completes the installation before 7 months period, then after completing successful commissioning and issuing Initial Hand Over and Completion Certificate, the DLP, O&M and warranty period shall start from the date of initial completion certification.



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Initial Completion of Project:

After completing the entire installation works as per the contracts and successful completion of final testing and commissioning, there will be issuing an Initial Handing Over and Completion Certificate to the Contractor by Engineer in Charge/ AUTHORITY. For issuing the same the Contractor has to submit minimum 3 sets of As-Built drawings (Hard and Soft copies), OEM warranty of all equipment, O & M manuals, minimum quantities of spares and items as buffer stock as per contract, licenses if any for running the system, etc. as complete. The DLP, O & M and warranty are started from the date of issue of Initial Hand Over and Completion Certificate.

Final Completion of Project:

Immediately after issuing the Initial Hand Over and Completion Certificate, two-year Defect Liability Period (DLP) and Five years Operations and Maintenance (O & M) period will start. After successful completion of 5 years O & M, the entire Smart LED streetlight system shall be tested and verified so as to ensure all are working in good condition. After successful testing, a Final Hand Over and Completion Certificate will be issued by Engineer in Charge/ AUTHORITY. Even after issuing the certificate, the Contractor is responsible for complying with the warranty of the items as applicable.

Defect Liability Period:

As per the contractual obligation there will be two years of Defects Liability Period (DLP), which is started from issue of Initial Hand Over and Completion Certificate. During DLP, the Contractor is fully responsible for any defective rectification of entire installed items as part of the project. Any spares or replacement of any defective items including the labour for the works for replacement/Rectification shall be the sole responsibility of the contractor without any financial implication to the AUTHORITY. So, the Operation and Maintenance charge during the DLP period shall not be loaded with the cost of labor for the defective maintenance works.

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Warranty:

The Contractor shall provide warranty for specified period for entire items and equipment supplied as part of the project. For all LED lights and fixtures shall be provided with 7 years (Seven years) replacement/repair warranty by the Contractor. During DLP period the Contractor is fully responsible for supply of spares/defective items and the labour for rectification work without any cost. As the supply of faulty item and related labour for replacement /repair are covered as free of cost under DLP for a duration of 2 years. Bidder is expected to quote only the labour, tools and tackles and other cost elements related to operation and maintenance part of the complete lighting system for the first two years. There is 5 years of 0 & M contract as part of the project including DLP period of two years. The labor cost for defective or rectification works for balance 3 years after DLP period shall be included in the O & M charges and hence the Contractor is fully responsible for supply of spares/defective items and labour for rectification work without any additional cost during the O&M period also. After completion of 5 years O & M period the Contractor has to submit warranty certificate for remaining two years warranty for LED lights/fixtures to CSML/Corporation. During this period the Contractor is responsible for supply of spares/ defective items for the rectification of complaints. The labor for the same will be paid extra, if applicable.

All other items including Feeder pillar with CCMS panel, Communication system, cables, connectors, etc. shall be provided with 5 years (Five years) of fully replacement/repair warranty with supply of spares/ defective items and related labor without any charges other than quoted O&M Charges.

Operation and Maintenance:

The project is inclusive of 5 years (Five years) Operation and Maintenance (0 & M) contract starting from the issuance of Initial Hand Over and Completion Certificate. During 0 & M period

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the contractor is responsible for all periodic maintenance, preventive maintenance, defective maintenance and all operational activities to ensure the 100% successful running of the Smart LED streetlighting system. The Contractor has to mobilize the Streetlight management and monitoring team as described in the contract document.

STREET LIGHTING SYSTEMS - GENERAL

- 1. Operation & Maintenance of the Street Light System and High Mast lighting system in the project area, where in all responsibility of the switching point, control Panels and Lighting Point, including the communication hardware shall be extended to be covered within the scope of Bidder for the project life. Other components like power cables, damaged poles etc shall be replaced by bidder as per the SOR.
- of standby LED Lighting Fixtures of a minimum 5% of the installed of LEDs (each type separately based on all types of installations). The storing of materials at work site shall be arranged by the bidder at its own cost. The bidder has to ensure that minimum 5% of each wattage of LED fittings/accessories/feeder panel/Timer should be stored in advance. No compensation shall be made by CSML/ COCHIN CORPORATION for any damage or loss of materials during storing, transit transportation and at the time of erection. The bidder has to ensure necessary safety and insurance during the storage and during installation of the project.
- 3. The Bidder shall maintain Call Centre to attend to complaints received by phone calls, mails, faxes, SMS etc. It shall have permanent employees to rectify complaints, routine maintenance etc. on 24x7 basis and will daily submit the reports of switching points in COCHIN CORPORATION Office.
- 4. This section establishes standard for maintenance, servicing and repair of all lighting fixtures, lighting control panels and other equipment and systems.



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- 5. Street light outages include re-lamping, replacement of parts, or upgrades if parts are unavailable. Response to outage reports involves troubleshooting problems in the power distribution system, timer replacement, and contactor repair or replacement. Outage reports come from citizens, police, as well as Transportation crews and inspectors.
 - Physical damage includes knockdowns of streetlights or controllers and unintentional damage from dig-ups of the distribution conduits. Repairs may take minutes or days depending on the extent of the damage.
- 6. The maintenance crew can attend the repair activities based on the following complaints raised by public:
 - Lights not working or flickering
 - Lights left on during the day
 - Lights left off at night or with incorrect timings
 - Damaged lights particularly if it is causing a safety hazard
 - Electric pole with streetlight knocked over
 - Nuisance caused by positioning of light
 - Lights being obscured by trees
 - Dim or outdated lighting
 - A need for stronger or additional lights
- 7. The term preventive maintenance refers to a program of regular inspection and service of equipment designed to reveal potential problems before they become real, and to take proper corrective measures. These preventive maintenance inspections may also include proof testing and complete apparatus test. The objective is to increase the availability and reliability of equipment and systems and to minimize equipment operating problems and prevent failures by making minor repairs before major operating difficulties.

Preventive measures include structural inspections, electrical testing and checking, cleaning and changing lamps. To make sure that streetlamps are maintained properly, preventive measures



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like re-lamping can be carried out. Re-lamping of streetlights often involves extensive traffic control, lane closures.

If there is serious damage to the streetlights, corrective measures must be taken. Streetlights are refurbished by salvaging used or damaged street lighting equipment. Component parts are repaired or replaced, and fixtures are upgraded or modified to reduce future maintenance.

Proper maintenance or repair of fixtures and other electrical equipment, systems, requires a thorough knowledge of engineering, safety and repair techniques and familiarity with the particular features of the equipment or systems involved.

- ✓ These PM checklists should not be considered to be all inclusive or covering all contingencies, manufacturer manual and instructions, recommendations must be consulted. Only qualified electrical repair personnel should be assigned to do any work required and refer manufacturers' instructions and warnings. Inexperienced electrician or unqualified layman should not be allowed to attend any maintenance.
- ✓ Severe damage to the equipment or fatal electrical shock or burn can result from failure to properly service or repair the equipment

WARNING

Voltage, vapour, gas and other hazardous conditions can be present in electrical equipment and related systems. Competent trained personal is required to handle, install, use, or service any equipment and systems. Failure to follow this warning can result in severe personal injury, death, or damage to property. All concerned should strictly follow all the safety instructions.

Contractor is responsible for the following:

- ✓ Should deploy technically qualified staff at their highest skills.
- ✓ Maintain Lighting system in a satisfactory condition for safe operation.



- ✓ Always maintain equipment and system at peak operating efficiency.
- ✓ Provide maximum freedom from breakdowns during normal operation.
- ✓ Reduce to minimum downtime associated with breakdowns.
- ✓ Control cost of maintenance.
- ✓ Maintain a high level of skill and efficiency in performance of the work.
- ✓ Recommended and genuine spare parts must be used, ensuring that renewal parts are always meeting maintenance requirements.
- ✓ Contractor should arrange qualified, licensed and trained specialists/experienced engineers with prior approval of CSML/COCHIN CORPORATION to carry out electrical work and all specialized electrical works as required and instructed by CSML/COCHIN CORPORATION 0&M in the course of the Contract.
- ✓ Contractor shall employ government approved testing laboratory for tests such as calibration of meters, etc. Contractor should get prior approval for the test laboratory by submitting the profile of the laboratory.
- ✓ Prepare/update the preventive maintenance schedule check list in accordance to manufacturer's recommendations. Contractor should prepare these in accordance with manufacturer recommendations and submit them to CSML/COCHIN CORPORATION O&M for review.
- ✓ PM's and CMs work orders/service calls entries must be accurate and precise. Any false, inaccurate or misguiding information found in these work orders will result in imposition of severe penalties.
- ✓ All annual preventive maintenance will be carried out as per schedule. Any delay will result in financial penalties. Any annual PM missed or delayed in any contract year will result in financial penalties and deductions as decided by CSML/COCHIN CORPORATION.
- ✓ All electricians and supervisors should have independent complete / professional tool boxes.
- ✓ Satisfactory stock of consumable spare parts must be ensured at site



- ✓ The original book of safety work permits (approved by CSML/COCHIN CORPORATION), caution plates, pad locks must be available with supervisors. Proper safety work permits must be issued for electrical works and required caution plates must be displayed and equipment should be isolated, grounded with earth connection and locked.
- ✓ Contractor should comply with all applicable relevant Indian standards /codes
- ✓ All work in this area must conform to the Indian Standard or in its absence the International Standard Codes. Any condition observed by the Contractor that does not conform to this standard or code, which cannot be corrected in the normal maintenance activity, shall be reported to CSML/COCHIN CORPORATION Operation & Maintenance Engineer -in- charge with recommended corrective action.
- ✓ All approved safety practices must be observed. Permits to work and test must be raised with KSEB where necessary and display caution plates. Also ensure that safety belts, gloves, eye goggles, mask, etc. for technicians.
- ✓ Emergency repairs resulting from storm, accident or other unforeseen cause can temporarily bypass certain requirements of the above standard, provided they do not endanger people or equipment and must be corrected to the standard requirements promptly, after the emergency has been resolved.
- ✓ Records are to be kept of all lamps, drivers, fuses, circuit breaker and other spare parts along with its specifications. The energy consumption figures are to be recorded on a weekly basis and passed on to CSML/COCHIN CORPORATION O&M on monthly basis in Monthly Report.
- ✓ A log(s) should be maintained in which all daily electrical Preventive and Corrective Maintenance activities for each facility must be recorded. It is the electrical supervisor's responsibility to maintain this log and must be readily available for COCHIN CORPORATION inspection.



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- ✓ Preventive Maintenance card must be installed in panel boards. This card must be updated whenever Preventive and Corrective Maintenance is carried out. Date and brief description of work should be recorded.
- ✓ All electrical meters, e.g. Ammeter, voltmeter, KW meter, frequency meter, and power factor meter, meggers are required to be calibrated by a certified approved independent testing laboratory as per requirement. The Contractor must keep the calibration certificates available at the office and submit copies to CSML/COCHIN CORPORATION for review and acceptance.
- ✓ Secondary injection test requires to be carried out annually for all protection relays.
- ✓ COCHIN CORPORATION Engineer –in charge can change the frequency of testing of any electrical cable, contactor, relays or any electrical equipment.
- ✓ The schedule for conducting all periodic tests shall be submitted to CSML/COCHIN CORPORATION O&M for approval within 90 days from the commencement of the Contract.
- ✓ All inspection observations, test results, equipment and system data, shall be documented and shall be made available for CSML/COCHIN CORPORATION representative.
- ✓ The Contractor is responsible for all preventive and corrective maintenance work for all electrical equipment and systems. The Contractor will maintain on his staff trained personnel

RESPONSIBILITY

- Daily operation and maintenance of electrical and instrument along with periodic cleaning, checking and care taking of the light fixture and panels and other equipment's spread over the entire Street lighting system of CORPORATION area.
- 2. Maintenance of Logbook for recording break down and repairs & to keep up-to-date status of the work assigned to maintenance team workers mentioning the exact date of work done with time and satisfactory acknowledgement report of the job card indenter.



- 3. Preventive periodical shutdown maintenance work in order to ensure uninterrupted lighting has to be attended as per maintenance schedule from time to time.
- 4. Persons deployed should be covered with general insurance by the Agency against any accident for which personal injury or loss of life may take place complying WC. Act 1923 as amended up to date. This is in addition to ESI facility. No compensation will be given by CSML/COCHIN CORPORATION for any reason whatsoever.
- 5. It is to be explicitly undertaken by the Agency that all statutory & legal requirements in respect of Site deployment by the Agency shall be fulfilled by the agency and CSML/COCHIN CORPORATION shall not be responsible for any manner directly or indirectly.
- 6. The CSML/COCHIN CORPORATION authority reserves the right to terminate the contract at any point of time during the currency of contract by serving one month notice without assigning any reason thereof. On the other hand, the agency concerned can serve notice to CSML/COCHIN CORPORATION for withdrawal/termination of the contract at least one month before the effective date of withdrawal/termination of contract at the risk and cost of the contractor. The rehabilitation (if any) of the employees of the contractor shall rest solely upon the contractor in case of termination/withdrawal of contract and CSML/COCHIN CORPORATION shall not be responsible for any kind of rehabilitation of contractor's employee in any case.
- 7. It is the sole responsibility of the contractor to withdraw their employee (s) immediately in the event of any misconduct /mis-behavior with CSML/COCHIN CORPORATION officials/representatives including involvement with any theft case etc
- 8. The Engineering Supervisor/Electricians have to maintain daily log book/register etc. apart from technical work to record all the maintenance work and other formalities as will be required towards compliances of the provisions of Minimum Wages act 1948/other labour rules. Weekly rest will be in staggered way for each category which should be spread on all days of the week.



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- 9. Preparation of estimates for additional work if any, Works supervision, Assistance towards Measurement of work & preparation of bills etc. falls under the scope of work of the Engineering Supervisor. He will also assist the Engineer-in-Charge /his authorized representative (from CSML/ COCHIN CORPORATION side) in purchase procedure.
- 10. Any other work as will be entrusted by the Engineer-in-Charge from time to time have to be carried out by the employees to be engaged by the contractor for AMC of Street Light Management System.

Project Staff

Project Execution Work

- 2. <u>Site Engineers</u> Either a Degree holder with 2 years experience or a Diploma holder with minimum 4 years experience in Electrical Engineering 3 Nos.
- 3. <u>Execution team</u> 3 groups each consisting of one trained technician (ITI holder with minimum 2 years experience) and two helpers......... 3 groups (total 9 members).
- 4. <u>Safety Officer</u> Degree/ Diploma in Safety having experience of at least 5 years in electrical field.... 1 no.
- 5. <u>Electrical work Permit Holder</u> Diploma/ITI in Electrical Engineering and having license in taking work permit from Kerala State Electricity Board for carrying out shutdown wok of 415 Volt distribution system..... 1 no

Note: CSML/ COCHIN CORPORATION are authorized to amend any of the experience/qualification criteria of the project staff and / or the count as mentioned above as special cases with valid reasons.

Maintenance Work



- 1. The workmen engaged for maintenance work must have license to carryout electrical work in Kerala State Electricity Board.
- 2. The gangs will work in as per the requirement of engineer in charge.
- 3. The Contractor shall provide common identification marking specific to this project on all lighting fixtures for maintenance identification purpose, the details of which shall be given during the engineering stage.
- 4. The Contractor shall establish store and testing facility to ensure proper stock of spares and facilitate testing of all components of lighting system.
- 5. All workmen, staff and engineers of Contractor shall ensure that all installation, operation and maintenance activities are carried out with full safety and by using all safety aids like helmets, gloves, earthing devices, testing gadgets. All electrical safety rules and regulations as per Indian Electricity act, Kerala Government electric supply code and regulations, statutory inspection by electrical inspector etc., must be followed by the Contractor during the contract period.
- 6. The Contractor shall be responsible for all compensation / liability due to any injury or death of any personnel while performing duties related to the work under this contract. CSML/COCHIN CORPORATION shall not be responsible in any such case and shall not be liable for any compensation in this regard.
- 7. All workmen, staff and engineers of contractor should follow a proper dress code while on duty.
- 8. The Contractor shall establish and maintain a state of art 24x7 Call Centre to receive and address all complaints related to lighting system and to monitor and manage entire smart controls of intelligent LED lighting system. The contractor shall establish an online complaint management system and a citizen App as part of SLMS. The Street Light Management System shall be hooked up with the central command and control system as directed by Cochin corporation with open protocols.



- 9. The bidder needs to provide the support during the entire project period through its local representative (1st level support) whose details indicating name, postal address with pin code, e-mail, contact number and fax shall be furnished.
- 10. The local representative shall extend necessary support to COCHIN CORPORATION for successful implementation of the project. All calls related to the project for resolving any issues shall be registered with the local representative by COCHIN CORPORATION/ during working hours from 9:00AM to 05:00 PM on all working days.
- 11. O&M shall be initiated after completion of installation and commissioning of street lighting system on all the specified roads and issue of completion certificate by Engineer in Charge after due inspection, testing and Commissioning.
- 12. CONTRACTOR shall install a Help Desk minimum 30 days in advance before the initiation of the O&M period.
- 13. The initial SIM/service provider's charge, Cloud hosting charge and recurring charge shall be covered by Software charge and same charge during O&M period shall be covered within the O&M charges.
- 14. The CONTRACTOR shall be responsible for maintaining/ repair/ replacement, comprehensively, of all the Luminaires, Switching point controller panels, communication devices along with updation of LMS and associated Cloud services installed in the allocated area during the tenure of the contract.
- 15. CONTRACTOR may maintain a service team/s with vehicle/s to address the complaints/accidents on SOS basis and take action immediately.
- 16. The minimum staffs/team provided by the bidder during O&M period shall be as follows:
 - a. Manager /In-charge One Degree holder in Electrical Engineering with 2 years experience or a Diploma holder in Electrical Engineering with 4 years experience
 - b. Minimum One electrical technician with 3 years' experience and one assistant shall be provided for every 10000 luminaires since the beginning of the contract (ie., total of minimum 4 teams for entire project area) and shall be augmented if found insufficient



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during the course of the contract. Replacement for the teams shall be well planned during the scheduled offs and leaves.

- c. At least 4 vehicles each for a team (4 wheel) with access ladder and other required tools and equipment shall be provided for the O&M period.
- 17. The Manpower, spares, tools and accessories required for O&M shall be provided by CONTRACTOR during the contract period.
- 18. Arranging periodical inspection from Electrical inspectorate / Kerala State Electricity Board. Note: CSML/COCHIN CORPORATION reserves the right review the requirements based on the site conditions and complaints and to insist for increase or decrease the number of O&M teams and vehicles to be employed for the O&M works on need-basis manner.

Fault Rectification

The Contractor shall have to rectify the fault in the lighting system promptly within a specified time after receipt of complaint in any form like verbal by the concerned COCHIN CORPORATION authority, in written by concerned authority, complaint received in call center, complaint received from Kochi helpline, citizens etc. The bidder should be fully responsible for maintenance of LED lights and any miss happening /all kind of theft in the project.

The bidder will liable to collect the off light points details from COCHIN CORPORATION in the morning and the bidder will be bound to rectify the fault within the specified time.

The specified time line for fault rectification of various types of faults are as mentioned below:

o Faulty lighting fixture: 48 hrs.

o Faulty lighting control Panel: 24 hrs.

o Fault in smart controls: 24 hrs.

o Fault in software: 48 hrs.

o Fault in cable, wire, circuit: 96 hrs.

o Noncompliance of illumination levels on any road: 48 hrs.



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Penalties.

If the Contractor fails to deliver the desired results in the installed lighting system as per the tender guidelines following penalties shall be applicable for non-compliance:

- 1. The bidder has to ensure a response time of at most 48 hours for attending the calls. In case the call is not responded within 48 hours, it shall be escalated to the next higher authority (2nd level support).
- 2. The bidder has to indicate also the name, postal address with pin code, e-mail, contact number and fax number of 2nd level authority for the purpose. Any change in contact person or their contact details shall be communicated to COCHIN CORPORATION within two days of such change.
- 3. If the bidder does not attend and/or rectify the fault within the specified period of time during the O&M period, then CSML/COCHIN CORPORATION shall be forced to deduct a fine of Rs.10 per point per day from running monthly Bill.
- 4. In the event of Bidder not being able to rectify the Daily lapses, within a period of 3 days, then the said penalty shall stand double i.e., Rs. 20 per point per day.
- 5. In the event of Bidder not being able to rectify the Daily lapses, within a period of 7 days, then the said penalty shall stand four times i.e., Rs. 40 per point per day.
- 6. The bidder shall bound to provide minimum 95% of the Lights in the City as a whole in working condition subjected to availability of electricity.
- 7. If the bidders failed to maintain the 95% streetlight in working condition for a continuous period of seven days, then the contract will be terminated with the notice of one month. CSML/COCHIN CORPORATION will take custody of all property which has been used by bidder for implementation/ completion of project and bidder will have no right to raise any objection against CSML/COCHIN CORPORATION. The Due payment/ performance security / earnest money of bidder will be forfeited, and the bidder will be blacklisted. The bidder should be bound to switch on/ off the streetlight point as per the direction given by the office.



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Contract period

Total Contract period comprises 7 months from date of work order (complete supply, installation and commissioning work) and 5 years 0&M period. The Contractor shall be responsible for management, operation & maintenance of work awarded to him during 0 & M period after commissioning of work for a period of 5 years from the date of completion of the work. During the 0 & M period of 5 years, if any damage / failure occurs due to any reason whatsoever the Contractor will have to repair / replace/ maintain/ install whatever needed as per site conditions at his own cost & risk basis. The Contractor shall hand over the project in working condition i.e. 100% lights on after completion of 5 years 0 & M period with all accessories / material in complete. During 0 & M period, the Contractor is responsible for free of cost replacement/repair warranty of all equipment's such as LED's/fixture, feeder pillar cum CCMS panels, communication devices, etc.

Obligations of the contractor

The Contractor shall at its own cost and expense:

- Site survey, study, construct, operate and maintain the Project Assets/Project Facility in accordance with the provisions of this Agreement, Good Industry Practice and Applicable Laws.
- 2. Obtain all Applicable Permits in conformity with the Applicable Laws and be in compliance thereof at all times during the Concession Period.
- 3. The Contractor shall, before commencement of implementation of the Project:
 - a. Submit to the Engineer-in-Charge with due regard to Project Completion and Scheduled Project Completion Date.
 - b. Have requisite organization and designate and appoint suitable officers/ representatives as it may deem appropriate to supervise the Project and to liaison with



- the Engineer-in-Charge and to be responsible for all necessary exchange of information required pursuant to this Agreement.
- c. Undertake, do and perform all such acts, deeds and things as may be necessary or required to adhere to the Project Completion Schedule and to achieve Project Completion under and in accordance with this Agreement.
- d. Submit to the Engineer-in-Charge, reports on the progress of implementation of the Project and any other data / information / details desired by him, at least once every month or more frequently as the situation may warrant.
- e. Ensure that services of water supply, sewerage, drainage, electricity, telephone etc. in the vicinity, encountered during the period of implementation/ operation/ maintenance are not damaged. In case any of the services are damaged for reasons attributable to the Contractor, necessary repairs shall be immediately carried out by the Contractor at the Contractor's cost.
- f. Procure and maintain in full force and effect, as necessary, appropriate proprietary rights, licenses, agreements and permissions for materials, methods, processes and systems used in or incorporated into the Project;
- g. Provide access to the Project Site, to the authorized representatives of COCHIN CORPORATION, KSEB and officers of any Government Agency having jurisdiction over the Project, including those concerned with safety, security or environmental protection, to inspect the Project and to investigate any matter within their authority and upon reasonable notice. Contractor shall provide them reasonable assistance necessary to carry out their respective duties and functions.;
- h. Provide to the Engineer-in-Charge, reports on a regular basis during the Implementation Period and the Operations Period in accordance with the provisions of this Agreement; Develop, implement and administer a surveillance and safety program for the Project/Project Facility and the users thereof and the workmen personnel engaged in the provision of any services under any of the Project Agreements including



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correction of safety violations and deficiencies, and taking of all other actions necessary to provide a safe environment in accordance with Applicable Laws and Good Industry Practice;

- Be responsible for safety, soundness and durability of the Project Facility including all structures forming part thereof and their compliance with the Specifications and Standards.
- j. Ensure that the Project Facility remains free from all encroachments and take all steps necessary to remove encroachments, if any.
- k. Maintain books of accounts and meet audit requirements as per the Applicable Laws.
- l. Be responsible for making good immediately at its own cost, any loss due to theft or damage to the assets created at the project site and shall continue to keep the project sites operational and available for public use, at all times, within the contract Period.
- m. Bear all costs and charges for special or temporary sites required by it in connection with access to the Project Site. The Contractor shall obtain at its cost such facilities on or outside the Project Site as may be required by it for the purposes of the Project and the performance of its obligations under this Agreement.

Authorization

- The key to ensure the safe operation and maintenance of the electrical equipment in KSEB Ltd.
- The charge of the equipment should lie with the individual who is formally authorized by the turnkey Contractor to perform the required tasks on the electrical equipment / systems.
- The turnkey Contractor will have to forward the list of the Supervisors (Engineering degree holders / Diploma Holders / ITI Certificate Holders) whom they deem fit (based upon the work experience / knowledge of the system / level) to guide /supervise the working teams on the electrical equipment of KSEB Ltd. network.
- These supervisors in the above list will only be authorized for Permit-to-Work (PTW) from the utility. The list thus furnished has to be kept at respective Electrical Division.



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DESIGN

Contractor shall conduct the site survey and find the actual quantity of streetlights in the Cochin corporation to be replaced. Contractor should select a suitable wattage of LED lamps based on lumens requirement as a replacement of the existing conventional lamps. The street lights will be controlled using automatic switches called Centralized Control and Monitoring System (CCMS) panels which uses GSM/3G/4G communication to communicate with Street light management software (SLMS)

Contractor's warranty of design

- a) The Contractor shall be fully responsible, for the suitability, adequacy, integrity, durability and practicality of the Contractor's proposal.
- b) The Contractor warrants that the Contractor's Proposals meet the Employer's Requirements and is fit for the purpose thereof. Where there is any inadequacy, insufficiency, impracticality or unsuitability in or of the Employer's Requirements or any part thereof, the Contractor's Proposal shall take into account, address or rectify such inadequacy, insufficiency, impracticality or unsuitability at Contractor's own cost.
- c) The Contractor warrants that the Works have been or will be designed, installed and otherwise constructed and to the highest standards available using proven up-to-date good practice
- d) The Contractor warrants that the Works will, when completed, comply with enactments and regulations relevant to the Works
- e) The Contractor warrants that the design of the Works and the manufacture of plant have taken or will have taken full account of the effects of the intended manufacturing and installation methods, Temporary Works and Contractor's Equipment
- f) The Contractor shall also provide a guarantee from the Designer for the design for suitability, adequacy, practicality of design for Employer's Requirements.



- g) The Contractor shall indemnify the Employer against any damage, expense, liability, loss or claim, which the Employer might incur, sustain or be subject to arising from any breach of the Contractor's design responsibility and/or warranty set out in this Clause.
- h) The Contractor further specifies and is deemed to have checked and accepted full responsibility 'for the Contractor's Proposal and warrants absolutely that the same meets the Employer's Requirements:
- i) Notwithstanding that such design may be or have been prepared, developed or issued by the Employer, any of Contractor's consultants, his subcontractors and/or his qualified personnel/persons or cause to be prepared, developed or issued by others.
- ii) Notwithstanding any warranties, guaranties and/or indemnities that may be or may have been submitted by any other person.
- iii) Notwithstanding that the same have been accepted by the Engineer



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TECHNICAL SPECIFICATIONS

STREET LIGHTING MANAGEMENT SYSTEM (SLMS) FOR SMART LED

GENERAL REQUIREMENTS OF SLMS:

Street Lighting Management System(SLMS) is required to control each luminaire point or group control as the case may be. System should have capability to schedule the operations of luminaires and accordingly control them. Luminaires may be controlled through cabinet in case of emergency.

The Street Lighting Control cabinet shall essentially consist of the following facilities:

- 1. Light Management System: Lighting Control System should be deployed to manage the entire Street Lighting System under the scope of the project. The solution should be provided as a SaaS model. The luminaries' installation should be a plug and play format. Full proof communication is to be provided between luminaire and Light management system (LMS). This could be using any or multiple form of communication networks, like NbIoT, RF, GSM, etc. All group controls should have redundant communication system. System should exercise complete control over the streetlights including the existing lights (but not to be replaced) coming under the same circuit from the respective transformer and thus be able to monitor their functions / operations such as Scheduling, controlling, etc.
- 2. Primary requirement of the system is that it should be Simple, Open and Secure. System Infrastructure should be simple providing seamless end to end solution without any complexity, with simple plug and play type of solution for installation not emphasizing of any special expert knowledge. System should be such that it can be easy to use / operative for non-IT expert for daily work life. System should be easily integrated with other major



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- system. It should use Open standard network technologies. Lighting data should be secure from any leak. Solution should be scalable and adaptable to future requirements.
- 3. The web hosting/operation management with software access with API for 5 years of 0 & M period shall be provided.
- 4. The software of the controller shall have HTTPS access over the internet. Strong password and 2 factor authentications for login to smart lighting management software. Multi-level user roles with difference access rights. Regular scheduled updates of the smart lighting management software at the frequency of 1 month or faster. 3rd party penetration tests and certificate for the last 3 years end to end application layer AES encryption. All data must be retrained by system provider for one year after the termination of contract.
- 5. The locations of these light fittings shall be seen in GUI (Graphical User Interface) from Command Centre / Control Centre.

Technical Specification of CCMS

1. <u>Street light Controller (SLC) Single Phase (CCMS).</u>

RF with 4G +2G based Gateway controller Device capability of scheduling the on/off timings of lighting control switchgears based on preset timings or according to the available annual sunrise and annual sun-set timings with GPRS/GSM/4G based remote streetlight monitoring system having capacity for self-protection from short-circuit, over voltage and anti-theft alert.

- a. System capability to capture and provide following parameters at variable timeintervals and live data collection of:
 - i. Voltages
 - ii. Current
 - iii. Power Factor
 - iv. Active Power (kW)
 - v. Metering kWh cumulative
 - vi. Number of hours the lamps were glowing



- b. Special emergency on/off facility with wireless control.
- c. Benchmarking capacity so as to generate alert message for:
 - i. Phase-wise currents on crossing threshold values
 - ii. Phase-wise voltages on crossing threshold values
 - iii. MCB trips
 - iv. Theft alerts
 - v. Switching component failure
 - vi. No output supply
- d. Alert message shall be forwarded to web software and from web software to five (5) phone numbers/notifications through android apps / SMS
- e. Alert for Door open.
- f. Metal Enclosure Box compliant to IP66 is to be used and has to be powder-coated and corrosion-resistant.
- g. 4G +2G modem used should be a with power consumption less than 5 watts
- h. Smart Energy Meter with ISI marking is to be used for power measurement. Class 1.0 accuracy or better smart energy meter to be used smart Energy Meter shall be compliant to IS:13779.
- i. The rating of the Streetlight controller should be at least two times the lighting load.
- j. Design life should be more than 10 years.
- k. IN built GATEWAY SPECIFICATIONS
 - i. Processor: Single board computer.
 - ii. Surge protection: CATB(6kv/3A), Optional: CATC (20kv/10kA).
 - iii. RF Communication: Frequency: 865MHzISMband
 - iv. Hardware: IEEE 802.15.4g PHY
 - v. Transmit Power: +14 dBm
 - vi. Receiver Sensitivity: -110 dBm
 - vii. Network Fault Tolerance: Self-healing mesh



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- viii. Communication options: 4G and inbuilt WIFI/ETHERNET optional communications for future purpose
 - ix. Operating conditions: -30°C to +70°C
- l. Protection: Voltage and Current sensing for Voltage and Current related protection
- m. Load Control Capacity: 32 Amps
- n. Auto MCB trip rectifier to be used: it should try at least 3 times for rectification for the short time MCB trip.
- o. To remotely rectify nuisance MCB trips.
- p. Switching Component should be external LATCHING RELAY only
- q. SMPS module should have 440V protection
- r. MCB should have automatic trip rectifier for the short time MCB trips
- s. Streetlight Controller shall be tested with NABL Lab however Manufactures internal testing report will be allowed for bidding purpose.

2. Street light Controller (SLC) THREE Phase (CCMS).

RF with 4G +2G based Gateway controller Device capability of scheduling the on/off timings of lighting control switchgears based on preset timings or based on the available annual sun-rise and annual sun-set timings with GPRS/GSM/4G based remote streetlight monitoring system with capacity for self-protection from short-circuit, over voltage and anti-theft alert.

- a. System capability to capture and provide following parameters at variable timeintervals and live data collection of:
 - i. Voltages
 - ii. Current
 - iii. Power Factor
 - iv. Active Power (kW)
 - v. Metering kWh cumulative
 - vi. Number of hours the lamps were glowing
- b. Special emergency on/off facility with wireless control.



- c. Benchmarking capacity so as to generate alert message for:
 - i. Phase-wise currents on crossing threshold values
 - ii. Phase-wise voltages on crossing threshold values
 - iii. MCB trips
 - iv. Theft alerts
 - v. Switching component failure
 - vi. No output supply
- d. Alert message shall be forwarded to web software and from web software to five (5) phone numbers/notifications through android apps / SMS
- e. Alert for Door open.
- f. Metal Enclosure Box compliant to IP66 is to be used and has to be powder-coated and corrosion-resistant.
- g. 4G +2G modem used should be a with power consumption less than 5 watts
- h. Smart Energy Meter with ISI marking is to be used for power measurement. Class 1.0 accuracy or better smart energy meter to be used smart Energy Meter shall be compliant to IS:13779.
- i. The rating of the Streetlight controller should be at least two times the lighting load.
- j. Design life should be more than 10 years.
- k. IN built GATEWAY SPECIFICATIONS
 - i. Processor: Single board computer.
 - ii. Surge protection: CATB(6kV/3kA), Optional: CATC (20kV/10kA).
 - iii. RF Communication:Frequency:865MHzISMband
 - iv. Hardware: IEEE 802.15.4g PHY
 - v. Transmit Power: +14 dBm
 - vi. Receiver Sensitivity: -110 dBm
 - vii. Network Fault Tolerance: Self-healing mesh



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- viii. Communication options: 4G and inbuilt WIFI/ETHERNET optional communications for future purpose
 - ix. Operating conditions: -30°C to +70°C
- l. Protection: Voltage and Current sensing for Voltage and Current related protection
- m. Load Control Capacity: 63 Amps
- n. Auto MCB trip rectifier to be used: it should try at least 3 times for rectification for the short time MCB trip.
- o. To remotely rectify nuisance MCB trips.
- p. Switching Component should be external LATCHING RELAY only
- q. SMPS module should have 440V protection
- r. MCB should have automatic trip rectifier for the short time MCB trips
- s. Streetlight Controller shall be tested with NABL Lab however Manufactures internal testing report will be allowed for bidding purpose.

3. Miniature Circuit Breaker (MCB) Specification

- a. Compliant to IS 8828: 1996 / IEC 60898-2002
- b. Under short-circuit conditions, the let through energy should be minimum to ensure longer life of contacts and reduced thermal stresses.
- c. Terminals should be IP20 rated.
- d. Mounting type should be DIN-rail arrangement by Snap-On fixing.
- e. Rated breaking capacity shall be 10,000A.
- f. Electrical Service life: Minimum of 50,000 make/break operations.
- g. Operating ambient temperature: 0C to +55C.

4. Load Break Switch (Rotary type) Specification

- a. 2-position Load Break switches to be used for input isolation (On-Off).
- b. Compliant to IEC 60947-3 standards.
- c. Position Indication should be available.
- d. Load Break will break at least AC23 current.



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5. Street Light Management Software (SLMS):

- a. SLMS shall have a web-based application software for to receive all data from the streetlight controllers and ILM devices
- b. It should be able to communicate with any Controller individually or collectively to control and monitor.
- c. It should register all fault conditions through the instantaneous alert messages sent by the controller equipment.
- d. Bulk messaging facility to be given so that any common changes to be effected into the controller equipment.
- e. Reports such as Energy Saving report, Lamp Failure report, etc. should be generated on a daily basis from the readings received from the controller equipment.
- f. Asset Management Software showing defective units, if any and other user-defined reports should also be available in the LMS. In addition to user-defined reports, mandatory formats of routine MIS reports are available
- g. Different user authorization levels should be settable and the central server should be capable of handling high traffic.
- h. GIS Mapping shall be done as part of the Survey covering all streetlights and switching points and the details of each lamp shall be viewable in the web application software through a Google-map interface.
- i. The application shall enable receipt & storage of all the field data with a time stamp in Cloud or in-house local server.
- j. Report Generation shall enable Users to generate various reports related to the system performance parameters such as energy consumed report, lamp and system failure report, actual hours of operation, uptime (%), etc. as well as based on historical data on daily, monthly, quarterly or annually basis as the case may be from the data/readings received from the units. The reports shall be generated in Excel as well as Graphical format.
- k. Web application shall ensure system security and safety for users at different levels with security password for various users.
- l. Remote configuration includes setting new ON/OFF timings, setting RTC time, viewing the Real time data of each switching point, smart Energy meter parameters, Resetting of the any unit, time synchronization of controller with that of Server and GPS clock etc.



- m. The minimum interval for the update of data should be 30 minute but programmable up to 1 minute.
- n. Asset Management
 - i. Application shall provide a map application that gives an overview of all Feeder Pillars on a street map or GIS map or a satellite image.
 - ii. Web application software shall offer asset management feature and allow user to locate controller devices through GPS coordinates. It also enables user to identify each controller with unique/Asset ID with additional information like Wattage, location, Pole no, GPS co-ordinates, last status. It is also possible to link details of every streetlight 265+with reference to particular switching point.
- o. Dashboard Web application shall provide a comprehensive dashboard with real time status of switching point, real time faults of various switching points, system uptime %, power consumption, graphical representation of cumulative data etc.
- p. The application should have required protection like Firewall, Malware, Antivirus etc., as per industry security standards. The data sent by device to IoT platform and further to application should follow AES Encryption standards.
- q. The application software should be flexible to cater to customized requirement which are not foreseen at this point of time but are deemed necessary during the execution and O&M.
- r. Separate tabs shall lead to details regarding monitoring & control parameters like, Alerts, Maps, Configuration, Reports, uptime, fault penalty, history, energy savings, power failure, operational hour, lamp failure etc
- s. The application should display the no. of faulty lights separately if ILM devices installed in particular lamps.
- t. The application shall provide API based integration to Integrated Command and Control Center (ICCC) in future. It would be the joint responsibility of the service provider (street light application provider and ICCC provider) to jointly work to get this integration up and running. ICCC shall provide remote viewing of street light control application for troubleshooting and support.
- u. There should be an automated mechanism in the form of "Mobile App" (Android) to capture pole, controller, lamp information/field information along with the Lat Long (location) of the pole, that would help the commissioning team to activate the system immediately. The mobile app should help map Controller Device ID, Lamp No and Pole No. effortlessly



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- v. Software to have complaint handling system for light failures, with citizen interface and means of communicating repair update to complaining citizen through SMS. The Complaint handling system software shall be implemented for handling and resolution of complaints during O&M period. The access for the complaint handling system shall be given to general public either through web portal or through dedicated APP for lodging complaints.
- w. Ability to remotely upgrade the CCMS device firmware from central server.
- x. The system shall display the following minimum faults in alarms
 - i. Phase-wise currents on crossing threshold values
 - ii. Phase-wise voltages on crossing threshold values Under/over voltage detection
 - iii. power failure/ Main breaker error
 - iv. Contactor fault
 - v. Circuit breaker off
 - vi. Circuit phase errors (fuse, breaker, etc.)
 - vii. Main power failure
 - viii. Manual switch activated
 - ix. Control cabinet door open
 - x. Low Power Factor
 - xi. Communication failure with server
 - xii. Theft Alert
 - xiii. Group failure of Lights
- y. The SLMS software shall be designed to support MINIMUM 4000 DEVICE points and have required implementations for efficient performance, robustness and security implementations.

Note: Bidder shall propose only proven SLMS for this project which should have implemented in minimum two similar projects in India and shall submit proof of the same during bidding for verification. Bidder shall demonstrate the capabilities and functionalities of SLMS on demand from the AUTHORITY during technical evaluation.

HELP DESK SETUP



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

- (a) A web-based Complaint Management System (CMS) shall be installed which should enable users to log complains and monitor its status & closure. The CMS shall be updated regularly with new updates/ patches to improve the performance during the contract period.
- (b) A Toll-Free Number exclusively for the Street lighting for Smart Roads and Access Roads shall be finalized in consultation with the COCHIN CORPORATION. Language Capabilities: Malayalam, Hindi and English;
- (c) The help desk shall operate 24X7 to assist and guide the users.
- (d) The help desk will handle user queries and issues relating to implemented solution
- (e) The helpdesk shall ensure that users can log calls and complaints for any technical issues they face while accessing the system.
- (f) The helpdesk shall have Interactive Voice Response (IVR) system for first level of call segregation.
- (g) A Standard Operating Procedures (SOP) for O&M process shall be created by the CONTRACTOR from logging of request to closure of the request. The SOP shall address call prioritization guidelines, problem security codes and escalation procedures etc. in consultation with CSML/COCHIN CORPORATION.
- (h) It shall be also possible to log requests by user through other channels like email and web interface;
- (i) All the complaints and work carried out by the CONTRACTOR shall be logged in the system with a unique service request.
- (j) The application shall be accessible to all users including general public through the COCHIN CORPORATION portal for logging issues;
- (k) CONTRACTOR shall allocate Serial No to the Pole- Lamp combination and maintain records of each one of them during the Contract period.



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- (l) A Report containing the operational Status of each light pole, complaints received and resolved; Preventive maintenance schedule and status, Stock of spares, man power update, etc. shall be submitted to the CSML/COCHIN CORPORATION on a weekly basis.
- (m) 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;

4.7.5 SERVICE LEVEL BENCH MARK

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

- (a) Resources CONTRACTOR shall maintain O&M team, tools and calibrated measuring and verification instruments as specified in the clause no 2.8.14 of scope of work from the start of O&M. In case the required resources are not deployed on time, a penalty which will be mutually agreed between CSML/COCHIN CORPORATION shall be imposed for the first week and the same shall be doubled in the subsequent weeks till adequate resources are deployed.
- (b) System Uptime CONTRACTOR shall maintain sufficient resources and achieve minimum uptime of 98% on yearly basis (year period to be decided by CSML / COCHIN CORPORATION) for the entire system, excluding the period of non-availability of power supply.
- (c) Smart Energy meter shall be calibrated periodically from approved calibration lab. If any complaint arises in energy meter, it has to be repaired immediately. In case of major complaints, the energy meter shall be replaced.
- (f) If it is not replaced with in the stipulated time the maintenance charges of such lamps shall not be paid to the contractor.
- (g) Integration of street light management system with Integrated Command Control Centre is in the scope of LED Lighting Contract. If integration is not done with in one-month after the successful commissioning of SLMS, penalty as decided mutually between CSML/COCHIN CORPORATION per week shall be imposed till the Integration is done.
- (h) Complaint Resolution All the complaints shall be redressed within 24 working hrs. In case the service provider fails to comply with the same a penalty as decided by CSML/COCHIN



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CORPORATION shall be imposed for a period of 7 days after which the amount will be doubled for the next subsequent weeks till the complaint is resolved to the satisfaction of the owner.

- (i) At any given time, the CONTRACTOR shall maintain spares equivalent to minimum 5% of the total number of lights installed. Failing to maintain spares and causing delay in resolution of the complaint shall be penalized as indicated above.
- (j) Cleaning of the luminaire cover shall be taken up once in half year and record shall be maintained and reported to COCHIN CORPORATION. Failing which the maintenance charges of the light fixture will be deducted from the payment of maintenance charges.
- (k) COCHIN CORPORATION shall ensure availability of power for streetlights. Electricity charges and Connectivity charges for streetlights shall be paid by COCHIN CORPORATION to the KSEB.
- (l) Availability of communication network through the selected mode shall be ensured by the CONTRACTOR for data and SMSs. The CONTRACTOR shall bear the cost of connectivity of all such network charges and pay monthly/ annually as the case may to the telecom service provider. Failing which COCHIN CORPORATION will directly deposit the amount to service provider and deduct 1.25 times the amount paid.
- (m) The Non -availability of incoming power supply from KSEB shall be intimated by CONTRACTOR within 24 hours. CONTRACTOR shall coordinate with KSEB on behalf of COCHIN CORPORATION and COCHIN CORPORATION shall facilitate as and when required to expedite the response.
- (n) Any complaint for failure of luminaire due to lack of earthing, SPD, connector and loose connections shall be to CONTRACTOR's Account. The contractor shall do the rectification work within 24 hours.
- (o) The CONTRACTOR shall upgrade the software application from time to time during the contract period in terms of features, performance & security of the system.
- (p) The CONTRACTOR shall take adequate insurance to cover themselves for the cost of O&M during the tenure of the contract including the ones due to theft.



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- (q) The CONTRACTOR shall make provision for adequate number of Ladder mounted vehicles self- sufficient with all the required tools and instruments, duly calibrated, to meet the maintenance requirements as per service benchmark.
- (r) All the electrical parameters and illuminance level of all the roads shall be monitored with calibrated Power Analyzer and Lux meter every three months and documented for records and analysis at regular interval as specified.
- (s) All the necessary modifications that are required to be carried out for the efficient working of the system including network and Luminaires and minimize the breakdowns and issues shall be carried out by CONTRACTOR from time to time at its own cost.
- (t) CONTRACTOR shall develop training material for the COCHIN CORPORATION/KSEBL technicians, impart them training from time to time as may be decided by the COCHIN CORPORATION.
- (u) All the responsibilities related to replacement of LED lamps / cables / other accessories shall be borne by CONTRACTOR in respect of cost, managing the technical barrier and other related aspect during the tenure of the project.
- (v) The maintenance work will be carried out without disturbing the street traffic and with proper work permit and safety.

CAPACITY BUILDING

- 1) The CONTRACTOR needs to provide training to COCHIN CORPORATION employees and other stakeholders as directed by COCHIN CORPORATION for capacity building;
- 2) The CONTRACTOR shall 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 COCHIN CORPORATION employees / stakeholder departments;
- (b) Computer based training modules;
- (c) Presentations;
- (d) User manuals;



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- (e) Operational and maintenance manuals for Smart Components implemented;
- (f) And Regular updates to the training aids prepared under this project.
- 3) The CONTRACTOR shall maintain a copy of all the training material on the portal and the access will be provided to relevant stakeholders depending on their need and role. The access to training on the portal would be finalized with COCHIN CORPORATION. CONTRACTOR has to ensure the following points:
- 4) For each training session, the CONTRACTOR has to provide the relevant training material copies to all the attendees.
- 5) The contents developed shall be the property of COCHIN CORPORATION with all rights.
- 6) The CONTRACTOR 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 CONTRACTOR 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 COCHIN CORPORATION.
- 7) 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 COCHIN CORPORATION for each training session.

HANDING-OVER OF THE SYSTEM DURING EXIT PERIOD

The CONTRACTOR shall hand over to the COCHIN CORPORATION the following before the expiry of the contract or in the case of termination of Contract by COCHIN CORPORATION with Justifiable reason as specified elsewhere in the RFP:

(a) A complete list of Hard and Soft Assets with its records over the past period.



- (b) All the assets in good working condition as per tech specification or its upgraded version. In case any asset is not in working condition, CONTRACTOR shall ensure that the same is made good as per required standard and performance and handed over within the Exit period.
- (c) All software along with the confidential information related to it like user name and passwords and hardware keys if any. It shall also hand over all the rate contract if any signed with the software company for continuity of services.
- (d) Information relating to the current services rendered and technology and technical 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;
- (e) All other information (including but not limited to documents, records and agreements) relating to the products & services related to the project to enable COCHIN CORPORATION and its nominated agencies, or its replacing CONTRACTOR to carry out due diligence in order to transition the provision of the Project Services to COCHIN CORPORATION or its nominated agencies, or its replacing CONTRACTOR (as the case may be).
- (f) The duration of 60 working days after completion of the contract period shall be considered as Handover/ Exit period during which CONTRACTOR shall give full access to its premises, records, data base and assets related to this project.
- (g) All the information as indicated above which is handed over to COCHIN CORPORATION should not be copied, sold or reused by CONTRACTOR under any circumstances without any written approval from COCHIN CORPORATION.
- (h) In case this handover happens before the completion of O&M period on termination, the CONTRACTOR shall ensure that the technology provider shall continue to support the assets and systems till the end of the O&M Period.
- (i) The CONTRACTOR shall not retain any data, security codes, and other confidential documents including any type of customer survey data with them.
- (j) During the Exit period CONTRACTOR shall not reduce any manpower or replace any Manpower willfully as available on the day of issue of Notice. In case the CONTRACTOR reduces



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the manpower then COCHIN CORPORATION shall charge Rs. 1000/- Per person per day as penalty for the remaining duration of the Exit period.

Specifications of LED streetlights

6. LED STREETLIGHT FITTINGS:

a. Standards Compliance:

- i. IEC:60598-Part 2-3-2002 / IS:10322 (Specification for Luminaires for Road and Street Lighting)
- ii. IEC:60598-Part-1-1999 (Specification for Luminaires: General Requirements and tests)
- iii. IEC:62262 (Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)
- iv. IEC:61000-4-5 (Testing and measurement techniques Surge immunity test)
- v. IS 16104(2012) / IEC 62384 (D.C or A.C Supplied Electronic Control Gear for LED modules Performance Requirements)
- vi. IS:10322 (Specifications of Luminaries)
- vii. IS:15885/-Part-2-13/IEC 61347/2-13/IEC 61347-1 (Safety of Lamp Control gear)

b. <u>Test Report</u>:

- i. Should be compliant to **LM79 IESNA**: Approved method for the electrical and photometric method of Solid-State Lighting products
- ii. Should be complaint to **LM80 IES:** Approved method for measuring Lumen Maintenance of LED light sources and LED lumen depreciation time.
- iii. Type Test Report (with Driver Short circuit test, Resistance to Dust & Moisture, Insulation resistance & Electric Strength, Mechanical Strength,



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- Mechanical Impact test, Thermal test, Resistance of Heat, Wind force test, Endurance test, Photometric Test and Electrical Parameter as per IS 16104)
- iv. LED & Luminary should be tested in a **Third Party NABL** (National Accreditation board for Testing and Calibration Laboratory) accredited laboratory.

c. Specifications for LED:

- i. Luminous efficiency of **each LED Chip** in the Luminary above 20w category should be a minimum 150 lumens / Watt (BEE 5-star rating).
- ii. Rated Lamp life should be 50,000 hours at soldering point temperature of 85C and at maximum driving current of 700mA.
- iii. LED should withstand a maximum driving current of 1.5A.
- iv. Use of LED that emits ultraviolet light is not permitted.
- v. RoHS compliance required for the LED lamp.

d. Specifications for Luminary:

- i. Secondary lens:
 - a. For 20W to 40W: Secondary Lens should be either provided for each LED separately or along with the Luminary Protector.
 - b. For Above 40W: should be provided for each LED separately (Not along with the Luminary Protector).
- ii. Secondary Lens should be made of PMMA (Poly Methyl Methacrylate) or PC (Poly Carbonate).
- iii. Luminous efficiency Luminary system should be : ≥150 Lumens/Watt
- iv. Wide view angles of a minimum of 135 degrees should be there.
- v. Color temperature should be in the range 5000-6000K
- vi. LED luminary should have a color Rendering index (CRI) of greater than 0.70
- vii. Correlated color temperature is Cool White



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e. Specification for Driver:

- i. Internal Surge protection of a minimum of 4kV to be provided for all the LED lamp (need to be tested in compliance with IEC:61000-4-5). In addition to this an external SPD of 10kV need to be provided for all LED fittings and shall be enclosed inside the frame of the light fixtures.
- ii. Power factor should be greater than 0.95
- iii. Electrical efficiency should be greater than 85 %
- iv. Input Voltage range: 110V-320V.
- v. Driver loss should be less than 15%. It should be mentioned exclusively (in Watts)
- vi. Should be suitable for operation at an ambient temperature: Up to 50°C.
- vii. DC current regulation should be better than 3%.
- viii. Total Harmonic Distortion (THD)should be less than 10%.
- ix. It should have High Voltage cut-off at 320V, Low Voltage cut-off at 110V, Short Circuit protection and Open Circuit protection and it should withstand 440V input supply for at least 8hrs.

f. Specification for Housing:

- i. Lamp housing to be of Die cast Aluminum (heat-resistant toughened cast) with good heat dissipation.
- ii. Lamp housing should be IP66 & IK07 compliant or better.
- iii. Protective Gasket should be provided in such a way to avoid water, dust and insect penetration inside luminary.
- iv. For Luminaries installed up to a height of 6 meters, toughened glass or UV protected poly carbonate shall be used to protect the LED luminaries. For Luminaries above 6m, only toughened glass shall be used to protect the luminaries.



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- v. Temperature rise of Heat Sink Shall not be more than 20°C for 48 hours continuous operation.
- vi. Stainless steel screws should be used.
- vii. The length of the cable from LED fittings shall be at least 300mm.
- viii. The male connector IP66 rated 3pin connector shall be compatible with the female connector used in the Bi-metal connector.

Specifications for Light fixing Arm, Connectors, Surge Protector, Cabling and other Accessories:

Light fixing Arm:

- The light fixing arm and clamps shall be fabricated using Hot Dip (80 MICRON) Galvanized Iron materials (pipes and strips) of required dimensions based on the weight of fixture, length of the arm and other relevant parameters of the fixing site.
- The design and drawing of the arm at different roads with all dimensions (diameter, length and weight) shall be prepared based on the site condition and get the approval of Engineer- in charge prior to start the fabrication work.
- The arm shall be designed (Arm length, inclination angle, etc) considering the mounting height of the Light fixture and to ensure uniform distribution of required lux level along the length and width of the designated type of Roads.
- The required number of the nut and bolt made up of SS material (Minimum 4 numbers of each set for one light fixture) shall be used for fixing of Arms with clamps.
- The measurement of GI Arm and clamp shall be in Kilogram and the same of SS nut & bolt shall be in each set as given in BOQ.

Note: The bidder should submit testing certificates from NABL accredited lab to prove the thickness of Hot Dip Galvanization (80 Micron) for Iron materials before awarding of the contract (Self declaration is acceptable for the Bidding purpose and technical evaluation). However, the bidder is bound to fabricate and furnish one sample light fixing arm if demanded by the Authority during technical evaluation period for ensuring the quality and applicability.

Bi-metallic connector:

• The electrical connection in bare overhead conductors shall be done through pinch type Bi-metallic connector in one end and a female IP66 connector on the other end.



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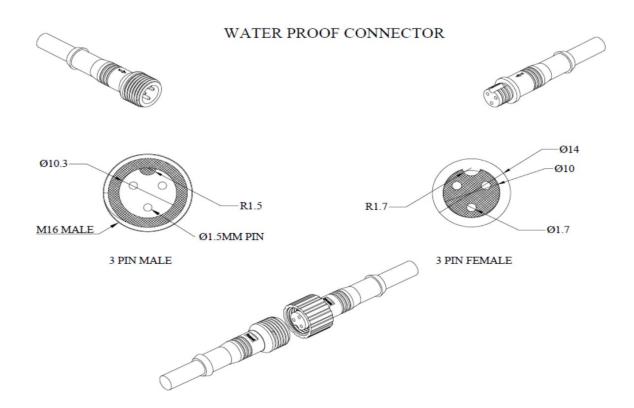
- Potting shall be used to protect the area where the copper wire is connected to the connector.
- Easy-glide mechanism for easy and safe installation of the connector to the overhead conductor
- The copper wire or copper cable used shall be 3 Core x 1 Sq.mm for 20W and 3 Core x 1.5 sq.mm 36W, 50W, 70 W and 100W categories. For 220W category, 3 Corex2.5 Sq.mm Copper cable shall be used.
- The cable coming out of the LED fitting shall be with 3 core, 1 sq.mm size copper for 20W and 3 Core x1.5sq.mm size copper for 36W, 50W,70W & 110W categories with male IP66 connector. For 220W category, 3 Corex2.5 Sq.mm Copper cable shall be used, with male IP66 connector.
- Bi-Metallic Connectors and Street Light shall be connected Via an IP 66 rated 3 pin connector.

Surge Protector Device:

- Surge protection device (SPD) in series connected option allowing clear indication of
 thermal fault protection by disconnecting power to luminaire thereby signally SPD
 module replacement to use in outdoor and commercial LED lighting fixtures for transient
 overvoltage protection by providing built-in thermal disconnect function provides
 additional protection to prevent catastrophic failure and fire hazard even under the
 extreme circumstances of varistor end-of-life or sustaining over voltage conditions
 including the following features,
 - o 10kV and 5kA Maximum Discharge Current (Imax)
 - o Parallel or Series connected options with luminaries
 - o Thermally protected
 - o IP66 rated, dust-tight and water resistant
 - o 240V and 300V AC supply
 - Meets the requirements of Low Voltage and RoHS

STANDARD DRAWINGS OF COMMON IP66 CONNECTOR











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1. GENERAL GUIDELINES

Note-Details and drawings given in document are for information purpose only and successful bidder shall undertake confirmatory surveys for accuracy and completeness of data. It is in scope of successful Bidder to undertake Site surveys as per requirements, Geotechnical investigations/Engineering Surveys, hydrological investigations, Underground Utility Surveying, shifting and creating new, obtaining all required approvals from the relevant authorities. Prepare Working drawings/Shop Drawings, submission of the same to engineer in charge for approval, submit maintenance manual to employer for approval before start of post construction period. The successful bidder shall have to prepare and submit 'Working Drawings' before execution and 'As Built Drawings' after execution depicting the exact construction carried out on site, in soft and hard copy format.

I.

1.1 Abbreviations

ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing Materials
BS	British Standard
CPWD	Central Public Works Department
DIN	Deutsches Institut für Normung e.V.
IRC	Indian Road Congress
IRS	Indian Railway Standards
IS	Indian Standards
JIS	Japanese Industrial Standard
MORTH	Ministry of Road Transport and Highways



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1.2 Reference to the Standard Codes of Practice

The contractor shall make available at site all relevant Codes of practice as applicable.

1.3 Contractor to Provide

The Contractor shall provide and maintain at site throughout the period of works the following at his own cost and without extra charge, except for the items specified in the Bill of Quantities the cost being held to be included in the Contract Rates:

- i. General works such as site clearance before and traffic control are maintained in good condition.
- ii. All labour, materials, plant, equipment and temporary works, Overhead charges as well as general liabilities, obligations, insurance and risks arising out of GCC, required to complete and maintain the works to the satisfaction of the Engineer.
- iii. Adequate lighting for night work, and also whenever and wherever required by the Engineer.
- iv. Temporary fences, barricades, guards, lights and protective work necessary for protection of workmen, supervisors, engineers, General public and any other persons permitted access to the site. Contractor shall provide proper signages as directed.
- v. All fences, barricade shall be painted with colour shades as specified by the Engineer. The barricading should be of adequate height to ensure visual obstruction of work from public view.
- vi. All equipment, instruments, labour and materials required by the Engineer for checking, measurements and quality etc.
- vii. Test results to be submitted to the Engineer for his approval before adoption on works.
- viii. Cost of Preparation for work and compliance with provision of a quality assurance control programme, cost of safeguarding the environment etc are responsibility of the Contractor.
 - ix. Quality Assurance & Quality Control:

The work shall conform to high standards of design and workmanship shall be structurally sound and aesthetically pleasing. The Contractor shall conform to the Quality standards prescribed, which shall form the backbone for the Quality Assurance and Quality Control system.

The Engineer shall have the right at all times to inspect all operations including the sources of materials, procurement, layout and storage of materials, all equipment and the quality control system. Such an inspection shall be arranged, and the Engineer's approval obtained prior to starting of the particular item of work. This shall,



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however, not relieve the Contractor of his responsibilities. All materials, which do not confirm to these specifications, shall be rejected, and shall be removed from the site immediately.

1.4 Materials

1.4.1 Source of Materials

It shall be the responsibility of the contractor to procure all the materials required for construction and completion of the contract. The contractor shall indicate in writing the source of materials well in advance to the Engineer, after the award of the work and before commencing the work. If the material from any source is found to be unacceptable at any time, it shall be rejected by the Engineer and the contractor shall forthwith remove the material immediately from the site as directed by the Engineer.

1.4.2 Quality

All materials used in the works shall be of the best quality of their respective kinds as specified herein, obtained from sources and suppliers approved by the Engineer and shall comply strictly with the tests prescribed hereafter, or where tests are not laid down in the specifications, with the requirements of the latest issues of the relevant Indian Standards.

1.4.3 Sampling and Testing

All materials used in the works shall be subjected to inspection and test in addition to test certificates. Samples of all materials proposed to be employed in the permanent works shall be submitted to the Engineer at least 15 days in advance for approval before they are brought to the site.

Samples provided to the Engineer for their retention are to be labelled in boxes suitable for storage. Materials or workmanship not corresponding in character and quality with approved samples will be rejected by the Engineer.

Samples required for approval and testing must be supplied sufficiently in advance if required quality and number to allow for testing and approval, due allowance being made for the fact that if the first samples are rejected further samples may be required. Delay to the works arising from the late submission of samples will not be acceptable as a reason for delay in completion of the works.

Materials shall be tested before leaving the manufacturer's premises. Materials shall also be tested on the site, and they may be rejected if not found suitable or in accordance with the specification, notwithstanding the results of the tests at the manufacturer's works or elsewhere or test certificates or any approval given earlier. The contractor will bear all expenses for sampling and testing, whether at the manufacturer's premises at source, at site or at any testing laboratory or institution as directed by the Engineer. No extra payment shall be made on this account.

1.4.4 Dispatch of materials

Materials shall not be dispatched from the manufacturer's works to the site without written authority from the Engineer.



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1.4.5 Test certificates

All manufacturer's certificates of test, proof sheets, etc showing that the materials have been tested in accordance with the requirement of this specification and of the appropriate Indian Standard are to be supplied free of charge on request to the Engineer.

1.4.6 **Rejection**

Any materials that have not been found to conform to the specifications will be rejected forthwith and shall be removed from the site by the Contractor at his own cost within two weeks or as instructed by the Engineer.

The Engineer shall have power to cause the Contractors to purchase and use such materials from any particular source, as may in his opinion be necessary for the proper execution of the work.

1.4.7 Storing of Materials at site

All materials used in the works shall be stored on racks, supports, in bins, under cover etc as appropriate to prevent deterioration or damage from any cause whatsoever to the entire satisfaction of the Engineer.

The storage of materials shall be in accordance with IS 4082 "Recommendation on stacking and storage or construction materials on site" and as per IS 7969 "Safety code for handling and storage of materials".

The materials shall be stored in a proper manner at places at site approved by the Engineer. Should the place where material is stored by the Contractor be required by the Employer for any other purpose, the Contractor shall forthwith remove the material from that place at his own cost and clear the place for the use of the Employer.

1.5 Water

i. Water from approved source

Potable water only shall be used for the works. Contractor shall have his own source of water duly approved by Engineer. The water shall be free from any deleterious matter in solution or in suspension and be obtained from an approved source. The quality of water shall conform to IS 456.

1.6 **Workmanship**

Any work not to the satisfaction of the Engineer or his representative will be rejected and the same shall be rectified or removed and replaced with work of the required standard of workmanship at no extra cost.



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1.6.1 Responsibility for Shop drawings, Samples and Mock-ups

Approval of shop drawings, samples and mock-ups for the various components shall not absolve the Contractor of his responsibility of completing the work to the specifications, standards, tests for performance and guarantees given in these documents and to a quality of finish as desired by the Engineer.

1.6.2 **Cleaning**

Surfaces on which finishes are to be provided shall be cleaned with water jets or oil free compressed air or power tools with wire brushes and detergents all as approved by the Engineer.

1.7 **SAMPLING & MOCK-UPS**

Major items of work for which samples and mock-ups shall be produced by the Contractor free of cost for approval by the Engineer-in-charge.

1.8 STANDARD SPECIFICATIONS

1.8.1 APPLICABLE CODES AND REGULATIONS

Electrical arrangement shall be based on BS: 7671 - 2001 "Requirements for electrical installations. IEE Wiring Regulations - Sixteenth edition" or other internationally recognized equivalent standard approved by the Employer's representative examples of which are:

(i)	IEA	Indian Electricity Act
(ii)	BS	British Standard
(iii)	EN	Euro Norm Standard
(iv)	ISO	International Standards Organization
(v)	IEC	International Electro-Technical Commission
(vi)	NEC	National Electrical Code
(vii)	NEMA	National Electrical Manufacturers Association
(viii)	NFPA	National Fire Protection Association
(ix)	IS/BIS	Bureau of Indian Standards

1.8.2 LOCAL CODES, REGULATIONS AND STANDARDS



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Unless otherwise stated, the electrical system shall be governed by all applicable local codes, code of practices regulations and standards (all latest) issued by the local agencies such as:

- (i) Indian Electricity Act, 2003 and Indian Electricity Rules, 1956 amended upto date.
- (ii) Public Works Department (Central/State)
- (iii) KSEB
- (iv) National Safety Council
- (v) Chief Electrical Inspector
- (vi) CEA regulations.

The Contractor shall ensure compliance with the regulations laid down by local authorities i.e., Government, Municipal, Electrical Inspector, and all other statutory agencies including fire safety regulations, fire insurance regulations or other local codes and obtain approvals from relevant authorities at appropriate stages of work as required.

LIST OF APPROVED MAKES

S. No.	Material	Approved Make
1	L.T. & Control Cables	CRI / Universal / RPG / KEI / RR Kabel/ Finolex /poly
		cab / TRACO cables or equivalent
2	Lighting Cables	CRI / Universal / RPG / KEI / RR Kabel/ Finolex/poly
		cab/ TRACO cables or equivalent
3	Smart Energy Meters	ABB / Schneider / L&T / Secure Meters or equivalent
4	Voltage surge	Schneider/siemens/L&T/Legrand/GE/ABB/Phoneix or
	protection	equivalent
5	Cable Glands	HMI / Gripwel / Comet/ Raychem or equivalent
6	Cable lugs	Dowell's / Jainson/ Jigo or equivalent
7	PVC terminals &	ELMEX / ESSEN / Phoenix or equivalent
	terminal blocks	



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8	Annunciators	Minilec / GIC India or equivalent
9	Analog type meters	Meco / Rishab / L&T / AE or equivalent
10	Indicating meters	Siemens/ Schneider/ABB or equivalent
10	mulcating meters	Stemens/ Schneider/ADB of equivalent
11	MCCB	Siemens / ABB / Schneider/L&T/Legrand or equivalent
12	MCB distribution board	Siemens / ALSTOM / Schneider/L&T or equivalent
13	Indicating Lamps	Siemens / BCH / / Schneider or equivalent
	_	
14	Contactors	L&T / Siemens / ALSTOM / Schneider or equivalent
15	Bimetallic IP connectors	Schnell or equivalent
16	Earthing	Excel Earthing, Sobo System, ISG Global or equivalent
17	Underground HDPE / DWC Ducts	Duraline, Bajaj, Reliance or equivalent
18	Selector switches	GE/Siemens/C&S/HPL/L&T (Salzer)/ABB/Schneider or equivalent
19	LED light Fixtures	Philips/Wipro/Bajaj/Crompton/Osram/Havells/Lighting Technology or equivalent
20	Control Panels	L&T/Bajaj/Crompton/Havells/Schnell/Philips or equivalent
21	LED Chips	Cree, Osram, Nichia, Philips Lumileds, Seoul, Bridgelux, Citizen or equivalent

Note: 'Equivalent' make mentioned above shall be conforming to the same quality standards and specifications of the specified make and subject to final approval by the AUTHORITY / AUTHORITY representative/ Engineer-incharge. Any other item or make not mentioned in the above list but required as per the site conditions or project needs, shall be procured with prior approval of the AUTHORITY or AUTHORITY representative/Engineer-in-Charge.



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Section VI. General Conditions (GC)



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Section VI. General Conditions (GC)

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Section VI. General Conditions (GC)

General Conditions

1. DEFINITIONS AND INTERPRETATION

1.1.Definitions

In the contract (as defined below) the words and expressions defined below shall have the meanings assigned to them, except where the Context requires otherwise. Words indicating persons or parties include corporations and other legal entities except where the context requires otherwise.

1.1.1Documents		
	1.1.1.1	"Appendix to Form of Tender" means the completed pages in title Appendix, which are appended to and form part of the Tender.
	1.1.1.2	"Bill of Quantity" means a document containing various items of payment and contains schedule of Payment also.
	1.1.1.3	"Construction and/or Manufacture Documents" means all drawings, calculations, computer software (programs), samples, patterns, models, operation and maintenance manuals and other manuals and information of a similar nature, to be submitted by the Contractor.
	1.1.1.4	"Contract" means the Contract Agreement, the Letter of Acceptance, the letter of tender, General Conditions of Contract, Special Conditions of



	Contract, the Employer's Requirements, the Tender, the Notice Inviting Tender, Instructions To Tenderers, the Contractor's Proposal, the Schedules, and such further documents which are listed in the Letter of Acceptance or Contract Agreement (if completed).
1.1.1.5	"Contract Agreement" means the contract agreement referred to in Sub-Clause 1.4. It shall also include all subsequent modifications/amendments to the Contract as a result of the communications between the parties and executed in writing.
1.1.1.6	"Contractor's Proposal" means the proposal submitted by the Contractor with the Tender, as modified and accepted by the Employer and included in the Contract. Such documents may include the Contractor's preliminary design.
1.1.1.7	"Contractor's Document" means the calculations, computer programme and other software, drawings, manuals and other documents of a technical nature (if any) supplied by the Contractor under the Contract.
1.1.1.8	"Design Data" means all specifications, plans, drawings, details, graphs, sketches, models, levels, setting-out dimensions, calculations duly checked by the Contractor and other documents relating to the design of the Works prepared or to be prepared by or on behalf of the Contractor.



1.1.1.9	"Drawings" means the Employer's Drawings and the Drawings submitted by the Contractor and any modification of such drawings as any, from time to time, be furnished or for which the Engineer has issued a Notice of No Objection.
1.1.1.10	"Employer's Requirements" means the description of the scope, standard, design criteria, specifications, drawings, programme of work, indigenisation programme (where applicable) as included in the Contract, and any alterations and modifications thereto in accordance with the Contract.
1.1.1.11	"Interim Payment Schedule" means the schedule included for each Cost Centre in the Pricing Document and accepted by the Employer to be used for interim payments in relation to achievement of milestones under that Cost Centre, as the same may be revised from time to time in accordance with Clause 11.
1.1.1.12	"Letter of Acceptance" means the formal acceptance to work by the Employer of the Tender.
1.1.1.13	"Notice to Proceed" means the notice issued by the Employer to the Contractor communicating the date on which the Works are to be commenced.
1.1.1.14	"Letter of Tender" means the document entitled letter of tender, which was completed by the Contractor and



	includes the signed offer to the Employer for the Works.
1.1.1.15	"Safety, Health and Environmental (SHE) Manual" means the Employer's manual containing the requirements and conditions to be met during the execution of the Works by the Contractor.
1.1.1.16	"Schedules" means the information and data submitted with the Tender, as included in the Contract.
1.1.1.17	"Tender" means the Contractor's priced offer to the Employer for the designing where ever applicable, execution, manufacture, and completion of the whole of Works, testing and commissioning (including Integrated Testing and Commissioning where ever applicable) and remedying of any defects therein, as accepted by the Letter of Acceptance
1.1.1.18	"Schedule of Milestones" means the schedule included in each Cost Centre in the Pricing Document, describing the Milestones and stipulating dates by which the Milestones are to be achieved under that Cost Centre in order to maintain interim payments by the Employer to the Contractor in accordance with the Interim Payment Schedule for that Cost Centre, as the same may be revised from time to time in accordance with the Contract.
1.1.1.19	"Schedule of Payment"



	1.1.1.20	means the schedule included in the Bill of Quantity for payment in various stages on part of the works. "Special Conditions of Contract" means any special conditions of contract issued by the Employer prior to submission of the Tender or negotiated and agreed in writing by the Employer and the Contractor prior to and conditional upon acceptance of the Tender.
	1.1.1.21	"Works Programme" means the programme showing the sequence, method and timing of investigations, design, issue of No Objection Notices, execution, manufacture, delivery to site, erection, installation, testing, commissioning of the Works (including Integrated Testing and Commissioning), indigenisation (where applicable) and related activities in the form and content prescribed by the Employer's Requirements, or any amended or varied version thereof, as submitted by the Contractor and for which the Engineer has issued a Notice of No Objection.
1.1.2 Persons		
	1.1.2.1	"Party" means the Employer or the Contractor as the context requires
	1.1.2.2	"Tenderer or Bidder" means the person submitting a bid/Tender.
	1.1.2.3	"Contractor"



1.1.2	means the person whose Tender has been accepted by the Employer and the legal successors in title to such person, but not (except with the consent of the Employer) any assignee of such person. "Contractor's Representative" shall mean a person named by the Contractor in
	the Contract or appointed from time to time by the Contractor under Sub-clause 4.3 to act on behalf of Contractor.
1.1.2	"Designated Contractors" means any of the following whose activities or the works they are engaged to carry out, affect or are affected by the Works, in any way or at any time:
	(a) contractors, design consultants and utility authorities engaged on the Project from time to time by the Employer;(b) sub-contractors of any tier of the contractors above; provided that the definition shall exclude the Contractor and his sub-contractors of any tier in relation to the Works.
1.1.2	"Other Contractor" means a person employed by or having Contract directly or indirectly with the Employer otherwise than through the Contractor.
1.1.2	"Designer" means the Contractor, or part of the group forming the contractor, person, firm or company or group of companies, or any



part thereof. 1.1.2.8 "Employer" means Chief Executive Officer, Cochin Smart Mission Ltd (CSML), Cochin, its legal successors and assignees. 1.1.2.9 "Engineer" means any person nominated or appointed from time to time by the Employer to act as the Engineer for the purposes of the Contract and notified as such in writing to the Contractor. "Engineer's Representative" means any Assistant of the Engineer appointed from time to time by the Engineer under Sub- clause 3.3 1.1.2.11 "Sub-contractor" means any person named in the Contract as a sub-contractor, manufacturer or supplier for a part of the Works or any person to whom a part of the Works has been sub-contracted with the consent of the Employer and the legal successors in title to such person, but not any assignee of such person. Dates, Times and Periods "Commencement Date" means the date on which the Contractor shall			
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"Commencement Date" means the date on which the Contractor shall		1.1.2.11	means any person named in the Contract as a sub-contractor, manufacturer or supplier for a part of the Works or any person to whom a part of the Works has been sub-contracted with the consent of the Employer and the legal successors in title to such person, but not any assignee of
means the date on which the Contractor shall	Dates, Times and Po	eriods	
of the Employer contained in the Notice to Proceed.		1.1.3.1	means the date on which the Contractor shall commence the Works on the written instructions of the Employer contained in the Notice to
1.1.3.2 "Contract Period"		1.1.3.2	"Contract Period"



	means the period from the Commencement Date to the end of Defects Liability Period and subsequent O&M period including Integrated Testing and Commissioning and as certified by the Engineer under Clause 7.11 (or as extended under Sub-Clause 10.3).
1.1.3.3	"Day" means a calendar day, "Week" means 7 calendar days, "Month" means a calendar month and "Year" means 365 days.
1.1.3.4	"Effective Date" means the date on which the Contract comes into force and effect.
1.1.3.5	"Gazetted Holiday" means every holiday which is observed by Cochin Smart Mission Limited as a gazetted holiday as well as a weekly holiday.
1.1.3.6	"General Holiday" means Sunday.
1.1.3.7	"Key Date" means a date identified as such in the Contract.
1.1.3.8	"Milestone" means the completion of a part of the Works or the occurrence of an event identified as such in the Schedule of Milestones.
1.1.3.9	"Milestone Date" means the date prescribed in the Schedule of Milestone by which a Milestone is to be achieved, if Interim Payments for the Cost Centre in which



	the Milestone is included are not to be suspended.
1.1.3.10	"Stage" means level of progress of the works identified as such and more particularly described in the Employer's Requirements for which a Key Date for the achievement thereof is stipulated in the Contract.
1.1.3.11	"Time for Completion" means the time for completing the Works or a section or a part thereof (as the case may be), and passing the Tests on Completion, including Integrated Testing and Commissioning, as stated in the contract, calculated from the Commencement Date.
Tests and Completion	
1.1.4.1	"Factory Tests" means the tests required to be carried out in the factory premises on components, equipment, subsystem, system, etc. during and/or after manufacture in the factory.
1.1.4.2	"Integrated Testing" in the contracts where applicable means the programme of tests performed by the Contractor at the direction of the Engineer following satisfactory completion of Contractor's tests on his equipment, sub-systems or system to verify and confirm the compatibility and compliant performance of his equipment/ sub-system/ system with the equipment/ sub-system/ system provided by others.



	1.1.4.3	"Milestone Certificate" means the certificate to be issued by the Engineer in relation to the achievement or otherwise of Milestones.
	1.1.4.4	"Performance Certificate" means the certificate issued by the Engineer under Sub-Clause 10.9.
	1.1.4.5	"Taking Over Certificate" means a certificate issued under Clause 9.1.
	1.1.4.6	"Tests on Completion" means the tests specified in the Contract and designated as such, including Integrated Testing where applicable and any other such tests as may be agreed by the Engineer and the Contractor, or instructed as a Variation, which are to be carried out before the Works, or any Section are taken over by the Employer.
Money and Payments		
	1.1.5.1	"Contract Price" means the sum stated in the Letter of Acceptance as payable to the Contractor, subject to such additions thereto or deductions therefrom as may be made under the provisions of the Contract,
	1.1.5.2	"Cost" means all expenditure properly incurred (or to be incurred) by the Contractor, whether on or off the Site,
	1.1.5.3	"Cost Centre Amount"
·		



		many the amount apportioned to a Cost Control
		means the amount apportioned to a Cost Centre as set out in the Pricing Document, as the same may be revised from time to time in accordance with the Contract.
	1.1.5.4	"Final Payment Certificate" means the payment certificate issued by the Engineer under Sub-Clause 11.9.
	1.1.5.5	"Final Statement" means the agreed statement defined in Sub-Clause 11.10.
	1.1.5.6	"Foreign Currency" means a freely convertible international trading currency in which part of the Contract Price is payable, but not the Local Currency.
	1.1.5.7	"Interim Payment Certificate" means any payment certificate issued by the Engineer under Sub-Clause 11.5, other than the Final Payment Certificate.
	1.1.5.8	"Local Currency" means Indian Rupees.
Other Definitions		
	1.1.6.1	"Approval or Approved" means Approval in writing including subsequent written confirmation of previous verbal approval.
	1.1.6.2	"Contractor's Equipment" means all machinery, apparatus, appliances, other things of whatsoever nature required for purpose of the Contract, including without limitation, Contractor's Plant and Equipment, or



	Materials to or from the Site, but does not include Plant, or Materials intended to form or forming part of the Permanent Works.
1.1.6.3	"Cost Centre" means a group of activities and/or items of work identified as such in the Pricing Document.
1.1.6.4	"Materials" means things of all kinds (other than Plant) to be provided and incorporated in the Permanent Works by the Contractor, including the supplyonly items (if any), which are to be supplied by the Contractor as specified in the Contract.
1.1.6.5	"Plant" means the machinery, equipment, and apparatus and the likes, intended to form or forming part of the Permanent Works, including the supply-only items (if any), which are to be supplied by the Contractor as specified in the Contract.
1.1.6.6	"Section" means a part of the Works specifically designated in the Appendix to Form of Tender as a Section (if any).
1.1.6.7	"Site" means the places provided by the Employer where the Works are to be executed and to which Plant and Materials are to be delivered, and any other place as may be specifically designated in the Contract as forming part of the Site.
1.1.6.8	"Scheduled Bank"



	means a bank included in the second schedule to the Reserve Bank of India Act, 1934, or modifications thereto.
1.1.6.9	"Specification" means the Specification referred to in the contract and any modification thereof or addition thereto, as may from time to time be furnished or approved in writing by the Engineer.
1.1.6.10	"Test" means such Tests as are prescribed in the Specifications or by the Engineer or Engineer's Representative, whether performed by the Contractor or by the Engineer or his Representative or any agency acting under the direction of the Engineer.
1.1.6.11	"Variation" means any alteration and/or modification to the Employer's Requirements, which is instructed by the Engineer or approved as a variation by the Engineer, in accordance with Clause 12.
1.1.6.12	"Works" means the work, both permanent and temporary, or services to be carried out, designed, manufactured, fabricated, delivered to Site, erected, installed, completed, tested, commissioned, (including Integrated Testing and Commissioning) and remedying of any defects, and/ or supplied in accordance with the Contract and include Plant, Materials and their accessories.



	1.1.6.13	"Permanent Works"
		means the permanent works to be designed and
		executed in accordance with the Contract.
	1.1.6.14	"Temporary Works"
		means all temporary works of every kind (other
		than Contractor's Equipment) required for the
		execution and completion of the Works, and the
		remedying of any defects.
	1.1.6.15	"Project"
		means Cochin Smart City Projects
1.2 Interpretation		
		have the context veguines athemaise.
in the Contract 6	except w	here the context requires otherwise:
1.2.1		(a) words indicating one gender include all genders;(b) words indicating the singular also include the
		(b) words indicating the singular also include the plural and words indicating the plural also
		include the singular and
		(c) "written" or " in writing" means hand-written, type
		written, printed or electronically made and
		resulting in a permanent record.
		The marginal words and other headings shall not be
		taken into consideration in the interpretation of
		these condition.
1.2.2		Terms and expressions not herein defined" shall have
		the meanings assigned to them in the "Indian General Clauses Act, 1897" or the Indian Contract Act or the
		Indian Sale of Goods Act or any other applicable Indian
		Law, as the case may be.
		Law, as the case may be.



COCHIN SMART MISSION LIMITED

1.3 Law and Language

The contract shall be governed by the Act and Laws of India, the rules, regulations and bye-laws of the concerned public bodies and authorities. Language of the Contract shall be English.

1.4 Contract Agreement

The Employer and the Contractor shall execute a Contract Agreement, with such modifications as may be necessary to record the Contract. The costs of stamp duties and similar charges imposed by law shall be borne by the Contractor. The value of stamp paper shall be calculated according to the Kerala Stamp Act 1959 i.e. "One rupee for every Rs 1000 or part thereof on the amount agreed in the contract, subject to a minimum of rupees 200 and a maximum of rupees one lakh."



COCHIN SMART MISSION LIMITED

1.5 Priority of Documents

The documents forming the Contract are to be taken as mutually explanatory of one another. If there is an ambiguity or discrepancy in the documents, the Engineer shall issue any necessary clarification or instruction to the Contractor, and the priority of the documents shall be as follows:

- (a) The Contract Agreement;
- (b) The Letter of Acceptance;
- (c) Pre and Post bid proceedings
- (d) Form of Tender
- (e) BOQ/Payment schedule
- (f) NIT
- (g) ITT
- (h) The Outline Design Specifications (Design Criteria) and Outline Construction Specifications; or any other specification
- (i) Drawings
- (j) The Employer's Requirements
- (k) The Special Conditions of Contract;
- (I) The General Conditions of Contract;
- (m) The Contractor's Proposal; and
- (n) Any other document forming part of the Contract.



COCHIN SMART MISSION LIMITED

1.6 Care and Supply of Construction and/or Manufacture Documents

The Construction and/or Manufacture Documents shall be in the custody and care of the Contractor during the Contract. Unless otherwise stated in the Employer's Requirements, the Contractor shall provide three copies for the use of the Engineer and assistants (as referred to in Sub-Clause 5.3).

The Contractor shall keep on Site one complete set of the documents forming the Contract, the Construction and/or Manufacture Documents, Variations, other communications given or issued from time to time and the documents/samples mentioned in Sub-Clause 5.3. The Employer, the Engineer and their assistants (as referred to in Sub-Clause 3.3) shall have the right to access these documents at all reasonable times. On discovery of any technical error or defect in a document intended to be used for the purpose of Contract, the Contractor shall promptly give notice to the Engineer of such error or defect.

1.7 Communications

Communications between parties, unless otherwise specified shall be effective only when made in writing. A notice will be effective only when delivered.



COCHIN SMART MISSION LIMITED

1.8 Employer's Use of Contractor's Documents

As between the Parties, the Contractor shall retain the copyright and other intellectual property rights in the Contractor's Documents and other design documents made by (or on behalf of) the Contractor.

The Contractor shall be deemed (by signing the Contract) to give to the Employer a non-terminable transferable non-exclusive royalty-free licence to copy, use and communicate the Contractor's Documents, including making and using modifications of them. This licence shall:

- (a) apply throughout the actual or intended working life (whichever is longer) of the relevant parts of the Works,
- (b) entitle any person in proper possession of the relevant part of the Works to copy, use and communicate the Contractor's Documents for the purposes of completing, operating, maintaining, altering, adjusting, repairing and demolishing the Works, and
- (c) in the case of Contractor's Documents which are in the form of computer programs and other software, permit their use on any computer on the Site and other places as envisaged by the Contract, including replacements of any computers supplied by the Contractor.

1.9 Contractor's Use of Employer's Documents

As between the Parties, the Employer shall retain the copyright and other intellectual property rights in the Employer's Requirements and other documents made by (or on behalf of) the Employer. The Contractor may, at his cost, copy, use, and obtain communication of these documents for the purposes of the Contract.

They shall not, without the Employer's consent, be copied, used or communicated to a third party by the Contractor, except as necessary for the purposes of the Contract.



COCHIN SMART MISSION LIMITED

1.10 Compliance with Statutes, Regulations and Laws

The Contractor shall familiarize themselves and conform in all aspects with:

- (a) the provision of any enactment in India as applicable from time to time
- (b) the regulations or bye-laws of any local body and utilities.
- (c) The Contractor shall be bound to give all notices required by statute, regulations or by-laws, as aforesaid and to pay all fees and bills payable in respect thereof. The Contractor will arrange necessary clearances and approvals before the Work is taken up.

Ignorance of Rules, Regulations and Byelaws shall not constitute a basis for any claim at any stage of work.

The Contractor shall indemnify the Employer against all penalties and liabilities of every kind of breach of any such enactment, laws, regulations, bye-laws or rules.



COCHIN SMART MISSION LIMITED

1.11 Joint and Several Liability

If the Contractor is (under applicable Laws) a joint venture, consortium, or other incorporated grouping of two or more Persons:

- (a) these Persons shall be deemed to be jointly and severally liable to the Employer for the performance of the Contract;
- (b) these Persons shall notify the Employer of their leader who shall have authority to bind the Contractor and each of these persons; and
- (c) the Contractor shall not alter its composition or legal status without the prior consent of the Employer

2. THE EMPLOYER

2.1 General Obligations

The Employer shall provide the Site/area of works and shall pay the Contractor in accordance with the Contract.



COCHIN SMART MISSION LIMITED

2.2 Access to and possession of the site

The Employer shall grant the Contractor right of access to, and / or possession of, the Site progressively for the completion of Works. Such right and possession may not be exclusive to the Contractor. The Contractor will draw/modify the schedule for completion of Works according to progressive possession/right of such sites.

If the Contractor suffers delay from failure on the part of the Employer to grant right of access to, or possession of the Site, the Contractor shall give notice to the Engineer in a period of 28 days of such occurrence. After receipt of such notice the Engineer shall proceed to determine any extension of time to which the Contractor is entitled and shall notify the Contractor accordingly.

For any such delay in handing over of site, Contractors will be entitled to only reasonable extension of time and no monetary claims whatsoever shall be paid or entertained on this account.

2.3 Permits, Licenses or Approvals

It shall be Contractor's exclusive responsibility to get approvals, permits or license required for the Contract. However, the Employer may (where he is in a position to do so) provide reasonable assistance to Contractor at the request and cost of the Contractor in getting Permits, License or Approvals required during the Contract.

The rendering of such assistance by the Employer shall not be interpreted as a pretext by the Contractor as condoning of any delay or non-performance of any of the Contractors obligations. The following-up of all such applications shall be the responsibility of the Contractor.

2.4 Assignment by the Employer

The Employer shall be fully entitled without the consent of the Contractor, to assign the benefit of the part thereof and any interest therein or there under to any third party.



COCHIN SMART MISSION LIMITED

3. THE ENGINEER

3.1 Appointment of Engineer

The Employer shall notify the Contractor in writing of the appointment and identity of the Engineer and of any replacement from time to time.

3.2 Duties and Authorities of the Engineer

The Engineer shall carry out the duties specified in the Contract. The Engineer shall have no authority to amend the Contract.

The Engineer may exercise the authority specified in, or necessarily to be implied from the Contract. If the Engineer is required to obtain the specific approval of the Employer before exercising such authority, such requirements shall be as stated in Special Conditions of Contract. Any requisite approval shall be deemed to have been given by the Employer for any such authority exercised by the Engineer.

The Engineer shall have no authority to relieve the Contractor of any of his duties, obligations, or responsibilities under the Contract. Any proposal, inspection, examination, testing, consent, approval or similar act by the Engineer (including absence of disapproval) shall not relieve the Contractor from any responsibility, including responsibility for his errors, omissions, discrepancies, and non-compliance with Sub-Clause 5.4.

The Engineer shall copy to the Employer all communications given or received by him in accordance with the Contract.



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3.3 Engineer's Authority to Delegate

- i) The Engineer, may from time to time assign and delegate authority to Engineer's representatives/assistants and may also revoke such assignments and delegations. The delegation or revocation shall be in writing and shall be applicable only after same has been notified in writing to the Contractor.
- ii) Each Assistant to whom duties have been assigned or authority has been delegated shall be authorized to issue instructions to the Contractor to the extent defined by the delegation. Any determination, approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test or similar act by an assistant shall have the same effect as though the act had been an act of the Engineer. However:
 - (a) Any failure to disapprove any Plant, Goods, Material, design and workmanship shall not prejudice the right of the Engineer to reject such Plant, Goods, Material, design and workmanship;
 - (b) if the Contractor questions any determination or instruction of an assistant of the Engineer, the Contractor may refer the matter to the Engineer within three days of such decision having been given, who shall confirm, reverse or vary such determination or instruction.



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3.4 Engineer's Instructions

The Contractor shall comply with instructions given by the Engineer in accordance with the Contract.

The Contractor shall give reasonable notice to the Engineer of any instruction, which he considers necessary for the execution of the Works, to enable the Engineer to issue the instruction so that progress of the Works is not delayed. The Engineer shall not, however, be bound to issue any instruction which, in his opinion, is unnecessary.

No act or omission by the Engineer or the assistants to the Engineer in the performance of any of the Engineer's duties or the exercise of any of the Engineer's powers under the Contract shall, in any way, operate to relieve the Contractor of any of the duties, responsibilities, obligations or liabilities imposed upon the Contractor by any of the provisions of the Contract.

3.5 Engineer to Attempt Agreement

When the Engineer is required to determine value, cost or extension of time, he shall consult with the Contractor and the Employer in an endeavour to reach agreement. If agreement is not achieved, the Engineer shall determine the matter fairly, reasonably and in accordance with the Contract, with the approval of Employer

4. THE CONTRACTOR



COCHIN SMART MISSION LIMITED

4.1 General Obligations

The Works as completed by the Contractor shall be wholly in accordance with the Contract and fit for the purposes for which they are intended, as defined in the Contract. The Works shall include any work which is necessary to satisfy the Employer's Requirements, the Contractor's Proposal and Schedules, or is implied by the Contract, or arises from any obligation of the Contractor, and all works not mentioned in the Contract but which may be inferred to be necessary for stability, or completion, or the safe, reliable and efficient operation of the Works.

The Contractor shall design, if in the scope of work, manufacture, execute, install, complete, test (including Integrated Testing in case of rolling stock and signalling contracts) and commission, the Works, including providing Construction and/or Manufacture Documents, within the Time for Completion and shall remedy any defects within the Contract Period. The Contractor shall provide all superintendence, labour, Plant, Materials, Contractor's Equipment, Temporary Works and all other things, whether of a temporary or permanent nature, required in and for such design, works and remedying of defects.

Before commencing design, if in the scope of the contract, the Contractor shall satisfy himself regarding the Employer's Requirements (including design criteria and calculations, if any) and the items of reference mentioned in Sub-Clause 4.8.

The Contractor shall give notice to the Engineer of any error, fault or other defect in the Employer's Requirements or such items of reference. After receipt of such notice, the Engineer shall determine whether Clause 12 shall be applied, and shall notify the Contractor accordingly.

The Contractor shall take full responsibility for the adequacy, stability and safety of all Site operations, of all methods of construction, manufacture, and of all the Works, irrespective of any approval or consent by the Engineer.

The Contractor shall be deemed to have satisfied himself before submitting his tender as to the correctness and sufficiency of his Tender to cover all his risks, liabilities and obligations set out in or implied by the Contract and all matters and things necessary for the proper design, manufacture, execution,



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installation, completion, testing, Integrated Testing whichever is in the scope of the contract, commissioning of the Works and remedying of the Defects.

The Contractor acknowledges responsibility for ascertaining and securing at his own cost:

- (a) conditions bearing upon the proper transportation, disposal, handling and storage of materials (including but not limited to hazardous toxic substances and excavated materials);
- (b) availability of electricity, water and gas;
- (c) availability of skilled manpower;
- (d) the character of equipment and facilities needed preliminary to and during the manufacture, installation, execution, testing, Integrated Testing, and commissioning of the Works and remedying of any defects;
- (e) the protection of the environment and adjacent structures which will be necessary preliminary to and during the manufacture, installation, execution, testing, Integrated Testing, and commissioning of the Works and remedying of any defects;
- (f) the location of and the authorisation required for and the means of diversion of any services and facilities required for the purposes of the Works.

The Contractor shall whenever require by the Engineer, submit details of the arrangement and methods which the Contractor proposed to adopt for the execution of the Works. No alteration to these arrangements or methods shall be made without the approval of the Engineer.



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4.2 Performance security

4.2.1 Performance security Amount

- i) Within 28 days of receipt of the Letter of Acceptance, the successful Tenderer shall furnish Performance Security in the form of a bank guarantee from a branch in India of a scheduled foreign bank or from a scheduled commercial bank in India acceptable to the Employer for an amount of ten per cent of the Contract value in types and proportions of currencies in which the Contract Price is payable. The approved form provided in the 'Instructions to Tenderers' documents or any other form approved by the Employer shall be used for Bank Guarantee. The Bank Guarantee shall be valid up to 3 months **beyond the Defect Liability Period**. In case the contract value exceeds beyond 25% of the original contract value, the contractor shall have to submit additional performance security.
- ii) Whenever the contract value exceeds beyond 25% of the original contract value either due to employer's variation or due to contractor's variation, the contractor shall submit additional performance security equal to an amount of 10% of the variation reduced by an amount equal to 5% of the work already certified as completed by the Engineer-in-Charge on the date of variation subject to a maximum limit of 10% of the variation amount.
- iii) No additional performance security will be required to be submitted if the variation is within 25% of the original contract value



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4.2.2 Forfeiture	Failure of the successful Tenderer to furnish the required Performance Security shall be a ground for the annulment of the award of Contract and forfeiture of the tender security.
4.2.3 Release	The whole of the Performance Security amount shall be liable to be forfeited by the Employer at the discretion of the Employer, in the event of any breach of contract on the part of the Contractor. i) The Performance Security amount shall become due and shall be paid to the Contractor on signing of the Performance Certificate after the expiry of the final Defects Liability Period as per Clause 10.9 of these conditions.



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4.2.4 Guarantees and Warranties

Within 21 days of the date of Letter of Acceptance of the Tender, the Contractor shall submit to the Employer:

- (a) An Undertaking in the approved format from a parent company, the identity of which shall have been submitted in writing to the Employer prior to acceptance of the Tender and against which the Employer shall have raised no objection.
- (b) A written Guarantee in the approved format from a parent company, the identity of which shall have been submitted in writing to the Employer prior to acceptance of the Tender and against which the Employer shall have raised no objection.
- (c) A warranty in the approved format from the Contractor.

In the event that the Contractor shall comprise two or more members, corporations acting in partnership, joint venture, consortium or otherwise each such member or corporation shall submit a parent company Undertaking and Guarantee.

Notwithstanding any other provision of the Contract:

(a) submission by the Contractor of the requisite Performance security, parent company Undertakings and written Guarantees shall be condition precedent to the Contractor's entitlement to any payment, under the Contract; and



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(b)	failure by the Contractor to provide a
	Performance security or parent company
	Undertakings or parent company Guarantees
	shall entitle the Employer either to suspend
	the Works or to terminate the Contract
	forthwith by notice in writing to that effect,
	notwithstanding that the Contractor may have
	been permitted to proceed with the Works,
	and the Contractor shall not be entitled to any
	compensation whatsoever as a consequence of
	such suspension or termination.



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4.3 Representation on Works

Unless the Contractor's Representative is named in the Contract, the Contractor shall, within 14 days of Notice to Proceed, submit to the Engineer for consent the name and particulars of the person the Contractor proposes to appoint. The Contractor shall not revoke the appointment of the Contractor's Representative without the prior consent of the Engineer. The Contractor's Representative so nominated shall have full authority to act on behalf of the Contractor. The Contractor's Representative shall give his whole time to directing the preparation of the Construction and/or Manufacture Documents and the execution of the Works. The Contractor's Representative shall receive (on behalf of the Contractor) all notices, instructions, consents, no objection certificate approvals, certificates, determinations and other communications under the Contract. Whenever the Contractor's Representative is to be absent from the Site, a suitable replacement person shall be appointed, with prior consent of Engineer.

Failure on part of the Contractor to comply with these provisions shall constitute a breach of Contract leading to action under Sub-Clause 13.2

The Contractor's Representative may delegate any of his powers, functions and authorities to any competent person, and may at any time revoke any such delegation. Any such delegation or revocation shall be in writing and shall not take effect until the Engineer has given prior consent thereto. The Contractor's Representative and such persons shall be fluent in the language of day to day communication and the Contractor shall be bound by and fully liable for the acts or omissions of the Contractor's Representatives or any of his employees and/or delegates, agents or nominees.



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4.4 Facilities for and co-ordination with others

The Contractor shall not impede and shall afford all necessary facilities, access and/or services to the Employer, Engineer, Designated Contractors, utility undertakings, other relevant authorities and other contractors (whether employed by the Employer or not) who are carrying out on, or in the vicinity of, the Site, works not included in the Contract but forming part of the Project:

- (a) The Contractor shall take all reasonable steps to ensure that the Works are co-ordinated and integrated with the design, manufacture, installation execution and testing of such other works and shall in particular (but without limitation):
 - i) comply with any direction which the Engineer may give for the integration of the design of the Works with the design of any other part of the Project;
 - ii) consult, liaise and co-operate with those responsible for carrying out such other works, including where necessary, in the preparation of the respective designs, the preparation of co-ordinated programmes, method statements, co-ordination drawings and specifications together with arrangements of service priorities and zoning;
 - iii) participate in Integrated Testing and Commissioning of the system with Designated Contractors and demonstrate to the satisfaction of the Engineer that the Works have been designed and constructed in a manner compatible with the works of Designated Contractors.
- (b) The Contractor shall undertake design co-ordination with other contractors who are carrying out works forming part of the Project as described in the Employer's Requirements. At the end of each such co-ordination period, the Contractor and the other contractor with whose works the interface period refers shall jointly state in writing that their design co-ordination activities are complete and that their respective



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designs are integrated and can be finalised without interference with each other's designs or the designs with which their designs have already been integrated. A copy of this joint written statement shall be provided to the Engineer within 7 days of the end of the said design co-ordination period. Unless and until copies of all relevant and necessary design co-ordination statements have been submitted to the Engineer, the Engineer shall be entitled to suspend any review or further review of the Contractor's or the other contractor's design submissions. Such suspension shall not be grounds for the Contractor to claim nor shall be entitled to receive an extension of time or additional payments.

- (c) Any other contract which depends for its execution on the Contract or upon which the Contract is dependent for its own execution shall be identified by the Engineer as a "Designated Contract". The Contractor shall provide attendance on Designated Contractors in accordance with the Employer's Requirements and as instructed by the Engineer. The identity of the contractor for a Designated Contract may not be known before the execution of the Contract but this shall not be a ground for the Contractor to object to the subsequent appointment of a Designated Contractor.
- (d) The Contractor shall afford all reasonable opportunities, for carrying out their work, to other contractors employed by the Employer and their workmen respectively and the workmen of the Employer who may be engaged on or near the Site of any work, ancillary to the Works, but, not included in the Contract and shall not cause them inconvenience.
- (e) If the Contractor shall suffer delay by reason of failure by any Designated Contractor to meet the specified installation interfacing and co-ordination, completion dates, which delay shall be caused otherwise than by fault of the Contractor, or, if compliance with sub-clause (f) herein shall involve the Contractor in delay beyond that which could be reasonably foreseen by an experienced contractor at the time of tender, then the Engineer shall take



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such delay into account in determining any extension of time to which the Contractor is entitled under the Contract.

(f) It shall be the responsibility of the Contractor to ensure that the full extent of the Works under the Contract and the works to be carried out by Designated Contractors within the Works or, in, on, under, through and over the Site are co-ordinated and integrated in their design, manufacture, installation and construction. Such responsibility shall neither be mitigated nor in any other way affected by virtue of similar responsibilities being placed on other contractors.

The Contractor shall be deemed to have made adequate allowance in the Contract Price and in the Works Programme in respect of these obligations. If any act or omission of the Contractor whether directly or indirectly results in the delay in the execution of the works of a Designated Contractor, the Contractor, in addition to his liability in respect of liquidated damages if they become due, shall pay to the Employer, or the Engineer may deduct from Interim Payment Certificates such amount as the Engineer shall have certified in respect of additional payments or costs to the Designated Contractor in respect of such delay.



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4.5 Sub-contractors	
4.5.1	The Contractor shall not sub-contract any of the works.
4.5.2	Unless otherwise stated in the Special Conditions of Contract: (a) the Contractor shall not be required to obtain consent for purchases of Materials which are in accordance with the makes specified in the Contract or provisions of labour or for the subcontracts for which the Sub-contractor is named in the Contract; (b) the prior consent of the Engineer shall be obtained for other proposed Sub-contractors; (c) not less than 28 days before the intended date of each Sub-contractor commencing work, the Contractor shall notify the Engineer of such intention; and the Contractor shall give fair and reasonable opportunity for contractors in India to be appointed as Sub-contractors.



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4.6 Assignment of Contractor's and Sub-contractor's Obligations

The Contractor shall not assign a right or benefit under the Contract without first obtaining Employer's prior written consent, otherwise than by:

- (a) a charge in favour of the Contractor's bankers of any money due or to become due under the Contract, or
- (b) assignment to the Contractor's insurers (in cases where the insurers have discharged the Contractor's loss or liability) of the Contractor's right to obtain relief against any other party liable.

If a Subcontractor's obligations extend beyond the expiry date of Defects Liability Period then the Contractor shall assign the benefits of such obligations to the Employer.

In the event that a sub-contractor of any tier provides to the Contractor or any other sub-contractor a warranty in respect of Plant, Materials or services supplied in connection with the Works, or undertakes a continuing obligation of any nature whatsoever in relation to such Plant, Materials or services (including without limitation an obligation to maintain stocks of spare parts) extending for a period exceeding that of the Defects Liability Period or where there is more than one Defects Liability. Period exceeding that of the latest Defects Liability Period, and if the Engineer so directs in writing within 21 days of the expiry of the Defects Liability Period or the latest Defects Liability Period (as the case may be), the Contractor shall immediately assign or obtain the assignment of the benefit of such warranty or obligation to the Employer or at the direction of the Employer, to any third party referred to in Sub-Clause 2.4.

4.7 Compensation for Breach

Any breach of Sub-clauses 4.5 to 4.6 shall entitle the Employer to rescind the contract under Clause 13.2 of these conditions and also render the Contractor liable for loss or damage arising due to such cancellation.

4.8 Setting Out



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4.8.1	Accurate Setting Out	The Contractor shall be responsible for
		 (a) the accurate setting out of the Works in relation to the original points, lines and levels of reference given by the Engineer in writing (b) the correctness of position, levels, dimensions and alignments of all parts of theWorks (c) the provisions of all necessary instruments, equipment, apparatus and labour in connection with the foregoing responsibilities (d) Carefully protecting and preserving all bench marks, sight rails, pegs and other things used in setting out the Works
		The checking of any setting-out or of any line or level by the Engineer shall not in any way relieve the Contractor of his responsibility for the accuracy or correctness thereof and the Contractor shall carefully protect and preserve all bench-marks, sight-rails, pegs and other things used in setting out the Works.
4.8.2	Errors in Setting out	If at any time during the execution of the Work, an error appears in the positions, levels, dimensions or alignment of any part of the Works, the Contractor on being required to do so by the Engineer shall, at Contractor's cost, rectify such error to the satisfaction of the Engineer.



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4.9 Site Data

- The Employer shall have made available to the Contractor with the Tender documents such relevant data in Employer's possession on hydrological and sub-surface conditions. The accuracy or reliability of the data/studies/reports and of any other information supplied at any time by the Employer or Engineer is not warranted with respect to the viability of his design and execution of Works and the Contractor shall be responsible for interpreting all such data. The Contractor shall conduct further investigations considered necessary by him at his own cost and any error, discrepancies if found in Employer's data at any stage will not constitute ground for any claim for extra time and costs.
- ii) The Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Tender or Works.
- iii) The Contractor shall also be deemed to have inspected and examined the Site, its surroundings, the above data and other available information with respect to the viability of his design and execution of Works and to have satisfied himself before submitting the Tender, as to all the relevant matters including without limitation:
 - (a) the form and nature of the Site, including the sub-surface conditions;
 - (b) the hydrological and climatic conditions;
 - (c) the extent and nature of the work, Plant, and Materials necessary for the execution and completion of the Works and the remedying of any defects;
 - (d) the applicable laws, procedures and labour practices
 - (e) The Contractor's requirement for access, accommodation, facilities, personnel, power, transport and other services.
 - (f) the risk of injury or damage to property adjacent to the Site and to the occupiers of such property or any other risk.



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4.10 Sufficiency of accepted Contract Amount

The Contractor shall be deemed to have satisfied himself as to the correctness and sufficiency of the Contract Price. Unless otherwise stated in the Contract, the Contract Price shall cover all his obligations under the Contract and all things necessary for the proper design, execution and completion of the Works, testing and commissioning (including Integrated Testing and Commissioning) and remedying of any defects.

4.11 Access Route

The Contractor shall be deemed to have satisfied himself as to the suitability and availability of the access routes he chooses to use. The Contractor shall (as between the parties) be responsible for the maintenance of access routes. The Contractor shall provide at his cost signs or directions, which he may consider necessary or as instructed by Engineer for the guidance of his staff, labour and others. The Contractor shall obtain any permission concessions and related easement right that may be required from the relevant authorities for the use of such routes, signs and directions.

The Employer will not be responsible for any claims which may arise from the use or otherwise of any access route. The Employer does not guarantee the suitability or availability of any particular access route, and will not entertain any claim for any non-suitability or non-availability for continuous use during construction of any such route.



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4.12 Rights of way and Facilities

The Employer will acquire and provide land for Permanent Works and right of way (within CSML's land) for access thereto over routes established by the Contractor. The Contractor shall bear all cost and charges for special or temporary rights of way which he may require including those for access to the Site. The Contractor shall also obtain, at his risk and cost, any additional facility outside the Site which he may require for the purpose of the Works. The Employer reserves the right to make use of these service roads/rights of way for itself or for other Contractors working in the area, as and when necessary without any payment to the Contractor.



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4.13 Programs

The Contractor shall submit a detailed programme to the Engineer after receipt of the Letter of Acceptance not later than 28 days from the date of receipt of Letter of Acceptance. The Contractor shall also submit a revised programme whenever the Engineer finds that the previous programme is inconsistent with actual progress or with the Contractor's obligations. Each programme shall include the following:

- (a) the order in which the Contractor proposes to carry out the Works (including each stage of design, procurement, manufacture, delivery to Site, construction, erection, testing and commissioning),
- (b) all major events and activities in the production of Construction or Manufacture Documents; and
- (c) the sequence of all tests specified in the Contract including Integrated Testing and Commissioning.

Unless otherwise stated in the Contract, the programmes shall be developed using precedence networking techniques, showing early start, late start, early finish and late finish dates.

No significant alteration to the programmes, or to such arrangements and methods, shall be made without obtaining consent of the Engineer. If the progress of the Works does not conform to the programmes, the Engineer may instruct the Contractor to revise the programmes, showing the modifications necessary to achieve completion within the Time for Completion.

Consent by the Engineer to Programmes shall not relieve the Contractor of any of his responsibilities or obligations under the Contract. If the Programmes indicate that a Key Date has not, or will not be met, it shall not, by itself entitle the Contractor to an extension of time in relation to such Key Date.



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4.14 Progress Reports

The Contractor shall submit to the Engineer by the end of each calendar month his Monthly Progress Report which shall, amongst other things, highlight actual or potential departures from the Works Programmes and/or the Design Submission Programme and state the measures which the Contractor proposes to take in order to make good or reduce any delay.

If requested by the Engineer, the Contractor shall submit to the Engineer, at weekly intervals, a written report as to the progress of off-Site manufacture of Plant, Rolling Stock and Materials.

The Contractor shall also submit to the Engineer such other reports as may reasonably be required by him or any relevant authority or public body.

The progress reports shall conform to the Employer's Requirements.

4.15	Contractor's Equipment
1.13	Contractor 5 Equipment

4.15.1	All Contractor's Equipment and Temporary Works provided by the Contractor shall, when brought on to the site, be deemed to be exclusively intended for execution of the Works and not be removed without the consent in writing of the Engineer. Such consent shall not be unreasonably withheld or delayed
4.15.2	Upon completion of the Works the Contractor shall remove from the Site all the said Constructional Plant and his unused materials
4.15.3	The Employer shall not, at any time, be liable for the loss or damage to any of the Constructional Plant, Temporary Works or materials save as mentioned in Clauses 14.1



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4.15.4	In respect of any Constructional Plant which the Contractor shall have imported for the purpose of the Works, the Employer may assist the Contractor, where required, in procuring any necessary Government consent for re-export of the same after the completion of the Works.
4.15.5	The Employer may assist (but is not obligated to) the Contractor, where required, in obtaining clearance through the Customs of Constructional Plant, materials and other things required for the Works



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4.16 Safety of Works

The Contractor shall throughout the contract period of the Works including the carrying out of any testing, commissioning (including Integrated Testing and Commissioning), or remedying of any defect:

- (a) shall engage only qualified and experienced electrical engineers, supervisors, wiremen and helpers with all personal protective equipment (PPE) for execution of project and maintenance of street lighting system. (The personal protective equipments such as Helmet, safety shoes, gloves, safety belts, mask, earplug etc. shall be provided to each employee/worker by the contractor).
- (b) Shall use Proper tools and Personal Protective Equipments while executing the installation and maintenance work.
- (c) take full responsibility for the adequacy, stability, safety and security of the Works, Plant, Contractor's Equipment, Temporary Works, operations on Site and methods of manufacture, installation, construction and transportation;
- (d) have full regard for the safety of all persons on or in the vicinity of the Site (including without limitation persons to whom access to the Site has been allowed by the Contractor), comply with all relevant safety regulations, including provision of safety gear, and insofar as the Contractor is in occupation or otherwise is using areas of the Site, keep the Site and the Works (so far as the same are not completed and occupied by the Employer) in an orderly state appropriate to the avoidance of injury to all persons and shall keep the Employer indemnified against all injuries to such persons.
- (e) provide and maintain all lights, guards, fences and warning signs and watchmen when and where necessary or required by the Engineer or by laws or by any relevant authority for the protection of the Works and for



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the safety and convenience of the public and all persons on or in the vicinity of the Site; and

(f) where any work would otherwise be carried out in darkness, ensure that all parts of the Site where work is being carried out are so lighted as to ensure the safety of all persons on or in the vicinity of the Site and of such work.

Contractor is required to take note of all the necessary provisions in Employer's Safety, Health and Environment Manual (SHE Manual) and the Contractor's price shall be inclusive of all the necessary costs to meet the prescribed safety standards. In the case, the Contractor fails in the above, the Employer may provide the necessary arrangements and recover the costs from the Contractor.



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4.17 Protection of the Environment

The Contractor shall take all reasonable steps to protect the environment (both on and off the Site) and to avoid injury, damage and nuisance to people and property resulting from pollution, noise and other results of his operations. The Contractor shall ensure that air emissions, surface discharges and effluent from the Site during the Contract Period shall not exceed the values indicated in the Employer's Requirements, and shall not exceed the values prescribed by law. The Contractor shall conform to the Employer's Requirements and shall indemnify the Employer against any liability or damages or claims arising out of his operations. The Contractor shall be responsible and liable for any stoppage, closure or suspension of the works due to any contravention of statutory requirements relating to the protection of the environment and shall indemnify and keep indemnified the Employer in this regard.

The Contractor's Site Environmental Plan shall be developed from his Employer's Safety. Health and Environmental Manual (SHE Manual), as per the Employer's Requirements and Special Conditions of Contract. Nothing extra shall be payable to the Contractor on this account and his Tender price shall be inclusive of expenditure required to be incurred for working as per SHE Manual.

Contractor shall keep the work place neat and tidy and shall clear all the waste materials of work and dump it at designated location allocated by the employer.

4.18 Electricity Water and Gas

The Contractor shall be responsible for making his own arrangements at his own cost to obtain supply of water, electricity or gas for the Works. The Employer where feasible may at its discretion assist the Contractor in this respect.



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4.19 Tools, Plants and Equipment Supplied By the Employer

Except for any specific item mentioned in the Special Conditions of Contract or in Employer's Requirements, the Contractor shall provide all tools, cranes, ladders, manlift, testing instruments, plants and equipment for the Works. In respect of such exceptional tools, plants or equipment committed to be provided by the Employer under terms and conditions specified in the Special Conditions of Contract, the Contractor shall take all reasonable care and shall be responsible for all damages or loss caused by him, his representatives, subcontractors or his workmen or others while they are in his charge.

On completion of the contract, the Contractor shall hand over the of the tools, plants and equipment's to the Employer in good order and repair, fair wear and tear expected, and shall be responsible for any failure to account for the same or any damage done thereto.

The decision of the Engineer as to the amount recoverable from the Contractor on this account shall be final and binding.

4.20 Employer's Materials & Excavated Materials

- i) Except for items mentioned in the Special Conditions of Contract, the Contractor shall provide all materials for the Works. Material if any, to be provided by Employer will be done only in a phased manner as per preapproved program, against a Bank Guarantee for the value of the Material and at terms and conditions for issue, upkeep, usage, return and recovery of such Materials as specified in Special Conditions of Contract.
- ii) Unless otherwise specified, the Contractor shall not sell or remove, except for the purpose of this Contract, sand, stone, clay, ballast, earth, rock or other materials obtained from the work Site and these shall be the property of the Employer and will be disposed off only in the manner instructed by him.



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4.21 Sheds, Stores, Yards

It shall be the responsibility of the Contractor to provide at his own expense the required sheds, store houses, and yards for both Permanent and Temporary Works and provide free access to the Engineer and the Engineer's Representative who will have right of inspection including that of instructing the Contractor to remove a particular material from the stores and not to use the same on the Works.

4.22 Temporary Works

All temporary works necessary for the proper execution of the works shall be provided and maintained by the Contractor at his cost and subject to the consent of the Engineer shall be removed by Contractor at his own expense when they are no longer required and in such manner as the Engineer shall direct. In case the Contractor fails to remove the temporary works on completion the Engineer is authorized to get the same removed and recover the cost there of from the Contractor.



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4.23 Unforeseeable Physical Conditions

In this Clause "physical conditions" means natural physical conditions, which the Contractor encounters at Site while executing the Works excluding climatic conditions.

If, during the execution of the Works, the Contractor shall encounter physical conditions, which, in his opinion, could not have been reasonably foreseen by an experienced Contractor, the Contractor shall forthwith give written notice thereof to the Engineer and if, in the opinion of the Engineer, such conditions could not have been reasonably foreseen by an experienced Contractor, then the Engineer shall certify and the Employer shall pay reasonable additional cost to which the Contractor shall have been put by reason of such conditions in the following cases:

- (a) for complying with any instruction which the Engineer may issue to the Contractor in connection therewith, and
- (b) for any proper and reasonable measures approved by the Engineer which the Contractor may take in the absence of specific instructions from the Engineer, as a result of such conditions or obstructions being encountered. The decision of the Engineer as to the additional cost shall be final and binding.

4.24 Access for Engineer

The Contractor shall allow the Engineer or the Engineer's Representative or any other person authorised by him, at all times access to the Site, and to any place where work in connection with the Contract is being carried out or is intended to be carried out and to any place where materials or plant are being manufactured, fabricated and/or assembled for the Works. The Contractor shall ensure that sub contracts if any shall contain provisions entitling the Engineer or any person authorised by him to have such access.



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4.25 Access Road and Way Leaves

Providing access roads/ way leaves to the site will be Contractor's responsibility.



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4.26 Contractor to keep Site Clear

During the execution of the Works, the Contractor shall keep the Site free from all unnecessary obstruction, and shall store or dispose of any Contractor's Equipment or surplus materials. The Contractor shall clear away and remove from the Site any wreckage, rubbish or Temporary Works no longer required.

On completion of the works, the Contractor shall clear away and remove from site all Constructional Plant, surplus material and Temporary Works. He should leave the whole of the site and Works in a clean, tidy and workman like condition to the satisfaction of the Engineer.

On completion of Work the Contractor shall also clear away the labour camps, hutments and other related installations and restore the land to its original condition to the satisfaction of the Engineer within 45 days of the physical completion of Work. The cost on account of delay in return of land and reinstatement of original condition within the stipulated time as determined by Engineer will recovered from the Contractor's dues.

No final payment in settlement of the accounts for Works shall be made or held to be due to the Contractor, till, in addition to any other condition necessary for such final payment, site clearance and clearances of labour camps etc shall have been affected by him. Such clearance may be made by the Engineer through any other agency at the expense of the Contractor in the event of the Contractor's failure to comply with this provision within 7 days after receiving notice to that effect from the Engineer. All expenses on such removal/clearance shall be debitable to the Contractor as loans due from the Contractor to the Employer, and the Employer shall be competent to recover the same from Contractor's on-account or final bills, or from Performance Security amount or from any other amount payable to the Contractor in any other Contract.



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4.27 Security of the Site

The Contractor shall be wholly responsible for security of site and Works. Unless otherwise stated in Special Conditions of Contract

- (a) the Contractor shall be responsible for keeping unauthorized persons off the Site; and
- (b) Authorized persons shall be limited to the Employees of the Contractor, Subcontractor or persons authorized by the Engineer.

4.28 Contractor's Operations on Site

The Contractor shall confine his operations to the Site, and to any additional area which may be provided to the Contractor and agreed by the Engineer as working areas. The Contractor shall take all necessary precautions to keep his personnel and equipment within the Site and such additional areas, and to keep and prohibit them from encroaching on adjacent land.

4.29 Discoveries

All fossils, coins, articles of value or antiquity and structures and other remains or things of geological or archaeological interest, in addition to oil and other minerals discovered on the Site shall be the absolute property of the Government of India and the Contractor shall take all the necessary precautions to prevent its workmen or its sub-contractors' workmen or any other person from removing or damaging any such article or thing and shall immediately upon discovery thereof, acquaint the Engineer of such discovery and carry out the instructions of the Engineer.



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4.30 Publicity

The Contractor shall not publish or otherwise circulate alone or in conjunction with any other person, any articles, photographs or other materials relating to the Contract, the Site, the Works, the Project or any part thereof, nor impart to the Press, or any radio or television network any information relating thereto, nor allow any representative of the media access to the Site, Contractor's Works Areas, or off-Site place of manufacture, or storage except with the permission, in writing, of the Employer. The Contractor shall ensure that his sub-contractors of any tier shall be bound by a like obligation and shall, if so required by the Employer, enforce the same at his own expense. The provisions of this Sub-Clause shall not exempt the Contractor from complying with any statutory provision in regard to the taking and publication of photographs.

4.31 Disclosure Of Relationship

If the Contractor or any partner of the Contractor or Director of the Contractor's company is closely related to any of the Officers of the Employer or the Engineer, or alternatively, if any close relative of an officer of the Employer or the Engineer has financial interest / stake in the Contractor's firm, the same shall be disclosed by the Contractor at the time of filing his tender. Any failure to disclose the interest involved, shall entitle the Employer to rescind the Contract, without payment of any compensation to the Contractor. The Contractor shall note that he is prohibited from developing such interest during the Contract period.

4.32 Use of Explosives

Explosives if required on the Work shall be used by Contractor only with prior Approval of the Engineer and in the manner and to the extent permitted by him. The Contractor shall be responsible for safe upkeep of such explosives in a special magazine as per the law on explosives as well as for taking all the precautions in the usage of the explosives with proper license and at Contractor's cost, sole risk and responsibility. The Contractor shall hold the Employer harmless and indemnify for the above.



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4.33 Corrupt or fraudulent practices



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4.33.1 Definition

The Employer requires that the Bidders/Contractors, their designated contractors and/or their agents observe the highest standards of ethics during Tendering and execution of this Contract. In pursuance with this policy, the Employer:

- (a) defines, for the purpose of these provisions, the terms set forth below as follows:
 - i) "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to Employer, Engineer or any of their employees, influence in the procurement process or in Contract execution; and
 - ii) "fraudulent practice" means a concealment or misrepresentation of facts in order to influence a procurement process or the execution of a Contract to the detriment of the Employer, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition.
 - iii) Breach of any of the contract condition during execution.



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- (b) Will reject the Tender for the Work or rescind the Contract if the Employer determines that the Bidder/Contractor has engaged in corrupt or fraudulent practices.
 (c) Will declare a Contractor ineligible, either indefinitely or for a stated period of time, to be awarded a Contract/s if he at any time determines that the Contractor has engaged in corrupt or fraudulent practices in competing for, or in executing the Contract.
 (d) The successful Bidders/Contractors shall apprise the Employer through Chief Vigilance
 - (d) The successful Bidders/Contractors shall apprise the Employer through Chief Vigilance Officer, CSML of any fraud/suspected fraud as soon as it comes to their notice.

4.33.2 Compensation to Contractor on rescission of Contract

In the event of rescission of Contract under Subclause 4.33.1, the Contractor shall not be entitled to any compensation whatsoever, except for the work done up to the date of rescission.

5. DESIGN

The clauses under the head 'Design' are applicable only in 'Design & Build' contracts and in case of 'Part Design & Build' contracts, these are applicable only to part of the contract in which the design is the responsibility of the contractor.



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5.1 General Obligations

The Contractor shall design and provide all necessary specifications for the Works in accordance with the site plans and Employer's requirements. Any design detail, plan, drawing, specifications, notes, annotations, and information required shall be provided in such sufficient format, details, extent, size and scale and within such time as may be required to ensure effective execution of Works and/or as otherwise required by the Engineer.

The Contractor holds himself, and his designers as having the experience and capability necessary for the design. The Contractor undertakes that the designers shall be available to attend discussions with the Engineer at all reasonable times during the Contract Period.

The designer shall be the same entity as proposed by the Contractor at the time of pre-qualification, unless otherwise approved by the Employer. The Contractor shall furnish Designer's Warranty in the format approved by the Employer.



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5.2 Contractor's warranty of design

- a) The Contractor shall be fully responsible, for the suitability, adequacy, integrity, durability and practicality of the Contractor's proposal.
- b) The Contractor warrants that the Contractor's Proposals meet the Employer's Requirements and is fit for the purpose thereof. Where there is any inadequacy, insufficiency, impracticality or unsuitability in or of the Employer's Requirements or any part thereof, the Contractor's Proposal shall take into account, address or rectify such inadequacy, insufficiency, impracticality or unsuitability at Contractor's own cost.
- c) The Contractor warrants that the Works have been or will be designed, installed and otherwise constructed and to the highest standards available using proven up-to-date good practice
- d) The Contractor warrants that the Works will, when completed, comply with enactments and regulations relevant to the Works
- e) The Contractor warrants that the design of the Works and the manufacture of plant have taken or will have taken full account of the effects of the intended manufacturing and installation methods, Temporary Works and Contractor's Equipment
- f) The Contractor shall also provide a guarantee from the Designer for the design for suitability, adequacy, practicality of design for Employer's Requirements.
- g) The Contractor shall indemnify the Employer against any damage, expense, liability, loss or claim, which the Employer might incur, sustain or be subject to arising from any breach of the Contractor's design responsibility and/or warranty set out in this Clause.
- h) The Contractor further specifies and is deemed to have checked and accepted full responsibility 'for the Contractor's Proposal and warrants absolutely that the same meets the Employer's Requirements:
 - i) Notwithstanding that such design may be or have been prepared,
 - ii) developed or issued by the Employer, any of Contractor's consultants, his subcontractors and/or his qualified personnel/persons or cause to be prepared, developed or issued by others.



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- iii) Notwithstanding any warranties, guaranties and/or indemnities that may be or may have been submitted by any other person.
- iv) Notwithstanding that the same have been accepted by the Engineer

The Contractor shall be fully responsible for the Plants, Materials, goods, workmanship, preparing, developing and coordinating all design Works to enable that part of the Works to be constructed and/or to be fully operational in accordance with the Contract's requirements.

Apart from the Contractor, the above warranty shall also be applicable for his designer. This warranty shall be a part of his sub contract with the designer and should be made available at the time of signing of the Agreement.

No claim for additional payment or extension of time shall be entertained and/or the Contractor shall not be relieved from anyobligation/liability under the Contract, for any delay, suspension, impediment to or adverse effect upon the progress of the Works due to any mistake, inaccuracy, discrepancy or omission in or between the Contractor's, the Definitive Design and the final design, or any failure by the Contractor to prepare any Design Data or submit the same to the Engineer in due time and the Contractor shall promptly make good any such defect at his own cost.



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5.3 Construction and Documents

The Manufacture Documents shall comprise the technical documents specified in approvals, documents described in Sub Clause 5.6 (As Built Document), and Sub Clause 5.7 (Operations and Maintenance Manuals). The Contractor shall prepare all Manufacture Documents in sufficient detail and shall also prepare any other document necessary to instruct the Contractor's personnel. The Engineer shall have the right to inspect the preparation of all these documents wherever they are being prepared.

Each of the Construction Documents shall, when considered ready for use, be submitted to the Engineer for pre-construction review. Unless otherwise stated in Employer's Requirements, each review by the Engineer shall not exceed 21 days, calculated from the date on which the Engineer receives the Manufacture Document. The Engineer may during the review period, give notice to the Contractor that a Manufacture Document fails (to the extent stated) to comply with the Employer's Requirements, it shall be rectified, resubmitted and reviewed (and if specified, Approved) in accordance with this Sub-Clause, at the Contractor's cost.

For each part of the Works, and except to the extent that the prior consent of the Engineer shall have been obtained:

- a) In the case of a Construction Document which has (as specified) been submitted for the Engineer's approval
 - i) The Engineer shall give notice to the Contractor that the Construction Document is provided with no objection, with or without comments, or that it fails (to the extent stated) to comply with the Contract
 - Execution of such part of the Works shall not commence until the Engineer has provided with no objection the Construction Document; and
 - iii) The Engineer shall be deemed to have provided with no objection the Construction Document upon the expiry of the review periods for all the Construction and/or Manufacture Documents which are relevant to the design and execution of such parts, unless the Engineer has previously notified otherwise in accordance with sub-paragraph (i)



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- b) Construction of such part of the Works shall not commence prior to the expiry of the review of the Construction and/or Manufacture Documents which are relevant to its design and execution;
- c) Construction and/or manufacture shall be in accordance with such reviewed (and if specified, approved) Construction Documents; and
- d) If the Contractor wishes to modify any design or document which has previously been submitted for such pre-construction and/or pre-manufacture review, the Contractor shall immediately notify the Engineer, and based on Engineer's approval shall subsequently submit revised documents to the Engineer in accordance with the above procedure.

If the Engineer instructs that further Construction Documents are necessary for carrying out the Works, the Contractor shall promptly and at Contractor's cost prepare such documents.

Errors omissions, ambiguities, inconsistencies, inadequacies and other defects if found at any stage in construction or any operations manufacture documents, then shall be rectified by the Contractor at his own cost and any approval or consent or review (under this sub-clause or otherwise) by the Employer/Engineer of the Manufacture and Construction Documents under this Sub-clause shall not relieve the Contractor from any obligations or responsibility under the Contract.

5.4 Technical Standards and Regulations

The design, the Construction Documents, the execution and the completed Works (including remedying of defects therein) shall comply with the specifications, technical standards, building construction, safety and environmental regulations and other standards specified in the Employer's Requirements applicable to the Works or defined by the applicable laws and regulations



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5.5 Samples

The Contractor shall submit at his own cost the following samples and relevant information to the Engineer for pre-construction and/or pre-manufacture review in accordance with the procedure for Construction and/or Manufacture Documents described in Sub-Clause 5.3:

- a) manufacturer's standard samples of Materials,
- b) samples (if any) specified in the Employer's Requirements.
- c) A 3D physical model of the project (cut plan of a floor)

Each sample shall be labelled as to origin and intended use in the Works.

5.6 Spares and Tools

This clause is applicable for 'Build' part of contract also The Contractor shall provide spares such as control cards, fuses indication lamps for the operation and maintenance of street light management system at his own cost.



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5.7 As-Built Drawings and Documents

This clause is applicable for 'Build' part of contract also. The Contractor shall prepare, and keep up-to-date, a complete set of "as-built" records of the execution of the Works, showing the exact "as-built" locations, sizes and details of the Works as executed, with cross references to relevant specifications and data sheets. These records shall be kept on the Site and shall be used exclusively for the purposes of this Sub-Clause. Six copies shall be submitted to the Engineer prior to the commencement of the Tests on Completion.

In addition, the Contractor shall prepare and submit to the Engineer "as-built drawings" of the Works, showing all Works as executed. The drawings shall be prepared as the Works proceed, and shall be submitted to the Engineer for his inspection. The Contractor shall obtain the consent of the Engineer as to their size, the referencing system, and other pertinent details.

Prior to the issue of any Taking Over Certificate, the Contractor shall submit to the Engineer one Autocad Soft copy, one full-size original copy and six printed copies of the relevant "as-built drawings", and any further Construction and/or Manufacture Documents specified in the Employer's Requirements. The Works shall not be considered to be completed for the purposes of Taking Over under Sub-Clause 9.1 until such documents have been submitted to the Engineer.

5.8 Maintenance Manuals

Prior to commencement of the Tests on Completion, the Contractor shall prepare, and submit to the Engineer, Maintenance Manuals in accordance with the Employer's Requirements and in sufficient detail for the Employer to operate, maintain, dismantle, reassemble, adjust and repair the Works. The Works shall not be considered to be completed for the purposes of Taking Over under Sub-Clause 9.1 until such Operation and Maintenance Manuals have been submitted to the Engineer and received his consent.



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5.9 Intellectual Property Rights and Royalties

The Contractor shall indemnify the Employer and the Engineer from and against all claims and proceedings on account of infringement (or alleged infringement) of any patent rights, registered designs, copyright, design, trademark, trade name, know-how or other intellectual property rights in respect of the Works, Contractor's Equipment, machines, work method, or Plant, or Materials, or anything whatsoever required for the Works and from and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto. The Contractor shall pay all traffic surcharges and other royalties, licence fees, rent and other payments or compensation, if any, for getting stone, sand, gravel, clay or other materials, machine, process, systems, work methods, or Contractor's Equipment required for the Works. The Contractor shall, in the event of infringement of Intellectual Property Rights, rectify, modify or replace at his own cost the Works, Plant or materials or anything whatsoever required for the Works so that infringement no more exist or in the alternative shall procure necessary rights/license so that there is no infringement of Intellectual Property Rights.

The Contractor shall be promptly notified of any claim under this Sub- Clause made against the Employer. The Contractor shall, at his cost, conduct negotiations for the settlement of such claim, and any litigation or arbitration that may arise from it. The Employer or the Engineer shall not make any admission which might be prejudicial to the Contractor, unless the Contractor has failed to take over the conduct of the negotiations, litigation or arbitration within a reasonable time after having been so requested. In the event of Contractor failing to act at Engineer's notice, the Employer shall be at full liberty to deduct any such amount of pending claim from any amount due to the Contractor under this Contract or any other Contract.

Insofar as the patent, copyright or other intellectual property rights in any Plant, Design Data, plans, calculations, drawings, documents, Materials, know-how and information relating to the Works shall be vested in the Contractor, the



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Contractor shall grant to the Employer, his successors and assignees a royalty-free, non-exclusive and irrevocable licence (carrying the right to grant sub-licences) to use and reproduce any of the works, designs or inventions incorporated and referred to in such Plant, documents or Materials and any such know-how and information for all purposes relating to the Works (including without limitation the design, manufacture, installation, reconstruction, Testing, commissioning, completion, reinstatement, extension, repair and operation of the Works).

If any patent, registered design or software is developed by the Contractor specifically for the Works, the title thereto shall vest in the Employer and the Contractor shall grant to the Employer a non-exclusive irrevocable and royalty-free licence (carrying the right to grant sub-license) to use, repair, copy, modify, enhance, adapt and translate in any form such Software for his own use.

If the Contractor uses proprietary software for the purpose of storing or utilising records the Contractor shall obtain at his own expense the grant of a licence or sub-licence to use such software in favour of the Employer and shall pay such licence fee or other payment as the grantor of such licence may require provided that the use of such software under the licence may be restricted to use relating to the design, construction, reconstruction, manufacture, completion, reinstatement, extension, repair and operation of the Works or any part thereof.

The Contractor's permission referred to above shall be given, inter alia, to enable the Employer to disclose (under conditions of confidentiality satisfactory to the Contractor) programmes and documentation for a third party to undertake the performance of services for the Employer in respect of such programmes and documentation.

If any software is developed under the Contract or used by the Contractor for the purposes of storing or utilising records over which the Contractor or a third party holds title or other rights, the Contractor shall permit or obtain for the Employer (as the case may require) the right to use and apply that Software

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free of additional charge (together with any modifications, improvements and developments thereof) for the purpose of the design, manufacture, installation, reconstruction, testing, commissioning, completion, reinstatement, extension, repair, modification or operation of the Works, or any part thereof, or for the purpose of any Dispute.

The Employer reserves the right to use other Software on or in connection with the Works.



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6. STAFF AND LABOUR

6.1 Engagement of Staff and Labour

The Contractor shall make his own arrangements for the engagement of staff and labour at his own cost.

6.2 Rates of Wages and Conditions of Labour

Full compliance of statutory requirements apart, the Contractor shall pay rates of wages and observe conditions of labour not less favourable than those established for the trade or the industry where the work is carried out.

The Contractor shall make himself aware of all labour regulations and their impact on the cost and build up the same in the Contract Price. During the Contract Period no extra amount in this regard shall be payable to the Contractor, for whatsoever reason including any revision of rates payable to the labour due to revision of rates payable in Minimum Wages Act.

Labour provided by the Contractor, either directly or through sub-contractors, for the exclusive use of the Employer or the Engineer, shall, for the purpose of this Sub-Clause, be deemed to be employed by the Contractor.

In the event of default being made in the payment of any money in respect of wages of any person employed by the Contractor or any of its sub-contractors of any tier in and for carrying out of this Contract and if a claim therefore is filed in the office of the Labour Authorities and proof thereof is furnished to the satisfaction of the Labour Authorities, the Employer may, failing payment of the said money by the Contractor, make payment of such claim on behalf of the Contractor to the said Labour Authorities and any sums so paid shall be recoverable by the Employer from the Contractor.



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6.3 Persons in the service/retired of Employer/Engineer

- a) The Contractor shall not recruit or attempt to recruit, staff and labour from amongst the Employer and the Engineer's personnel.
- b) The Contractor either at the tendering stage or during construction stage will not employ any retired employee of Employer or Engineer of the Employer in any capacity unless such employee has completed at least two years post retirement period or has obtained the no-objection certificate from Employer for being employed with the Contractor. It will be responsibility of the Contractor to collect the Employer's no objection certification from such retired employee and submit the same back to the Employer.

In case of noncompliance of above, in addition to any or several of the courses, referred in Sub-clauses 13.2 being adopted by the Employer the Contractor on Termination of the Contract for the aforesaid reasons will have no claim whatsoever against the Employer except for actual value of the Work executed till the time of Termination.



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6.4 Labour Laws

- a) In dealing with labour and employees, the Contractor and his Sub-Contractors (including piece rate and petty Contractors) shall comply fully with all laws and statutory regulations pertaining to engagement, payment and upkeep of the labour in India. For any non-compliance with statutory requirements the contractor will be terminated by the employer.
- b) The Contractor shall have a Labour Welfare officer who shall be responsible for labour welfare and compliance with prevalent labour laws, statutes and guidelines. In this context the Contractor is also required to familiarize himself with Kerala Labour Welfare Fund Rules and comply with the same.
- c) The Contractor shall prepare and submit compliance reports of adherence to labour laws as and when desired by the Engineer.

6.5 Working Hours

The Contractor, if required, shall carry out work during night hours or in shifts, unless specifically provided otherwise in the Contract. No increase in rates or extra payments shall be admissible for night work. The Contractor shall provide adequate lighting and safety arrangements.

6.6 Facilities for Staff and Labour

The Contractor shall provide and maintain at his own expense, all necessary accommodation and welfare facilities as per prevailing labour & welfare laws for his (and his Sub- contractor's) staff and labour. All accommodation shall be maintained in a clean and sanitary condition by the contractor at his cost.



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6.7 Health and Safety

Precaution shall be taken by the Contractor to ensure the health and safety of his staff and labour. The Contractor shall, in collaboration with and to the requirements of the local health authorities, ensure that medical staff, first aid facilities, sick bay and ambulance service are available at the accommodation and on the Site at all times, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics. The Contractor shall maintain records and make reports concerning health, safety and welfare of persons, and damage to property, as per the Engineer's requirement and will ensure complete compliance with relevant clauses of Employer's Health, Safety and Environment Manual (SHE Manual).

6.8 Contractor's Superintendence

The Contractor shall provide all necessary superintendence during the design and execution of the Works, and as long thereafter as the Engineer may consider necessary for the proper fulfilling of the Contractor's obligations under the Contract. Such superintendence shall be provided by sufficient persons having adequate knowledge of the operations to be carried out (including the methods and techniques required, the hazards likely to be encountered and methods of preventing accidents) for the satisfactory and safe execution of the Works.



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6.9 Provision Of Efficient And Competent Staff

The Contractor shall employ (or cause to be employed) only persons who are careful and appropriately qualified, skilled and experienced in their respective trades or occupations. The Engineer may require the Contractor to remove (or cause to be removed) any person employed on the Site or Works, including the Contractor's Representative, who in the opinion of the Engineer:

- a) persists in any misconduct,
- b) is incompetent or negligent in the performance of his duties,
- c) fails to conform with any provisions of the Contract, or persists in any conduct which is prejudicial to safety, health, or the protection of the environment.

6.10 Preservation of Peace and orderly conduct

6.10.1	The Contractor shall be responsible for preservation of peace and orderly conduct at the site and its neighbourhood by Contractor's employees, Representatives, petty contractors, Sub Contractors etc. In case, deployment of a Special Police Force, becomes necessary at or near Site, during the tenure of Works, the expenses for the same shall be borne by the Contractor.
6.10.2	The Contractor shall at all times take all reasonable precautions which will include that no labour or employee is permitted to work at site in an

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intoxicated state or under influence of drugs, to
prevent any unlawful, riotous or disorderly conduct
by or amongst his staff and labour, and to preserve
peace and protection of persons and property in the
neighbourhood of the Works against such conduct.



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6.11 Labour to be Contractor's Employee

If, the Contractor directly or through petty contractors or Sub-Contractors supplies any labour to be used wholly or partly under the direct orders of the Contractor/Engineer in connection with any work being executed by the Contractor, such labour shall, for the purpose of this clause, be deemed to be persons employed by the Contractor.

6.12 Report of Accidents to Labour

The Contractor shall be responsible for safety of all employees, employed by him on Works, directly or through petty contractors or Sub-Contractors, and shall report accidents to any of them, however, and wherever occurring on Works, to the Engineer or the Engineer's Representative, and shall make every arrangement to render all possible assistance and to provide prompt and proper medical attention. The compensation for affected Workers or their relatives shall be paid by the Contractor in such cases with utmost expeditious in accordance with the Employees Compensation Act.

6.13 Claim' on account of violation of Labour laws

The Contractor shall be solely accountable for violation of any labour law by it, its petty contractors or Sub Contractors and will pay any such claim/damage to the authorities forthwith on demand. If any moneys shall, as a result of any instructions, directions or decisions from the Authorities or claim or application made under any of the labour laws or regulations, be directed to be paid by the Employer, such moneys shall be deemed to be moneys payable to the Employer by the Contractor and he will pay the same to the Employer forthwith on demand, without demur and without asking for any reasons/explanations from the Employer. On failure of the Contractor to repay the Employer any moneys paid or to be paid by it as aforesaid within seven days after the same shall have been demanded, the Employer shall be entitled to recover the amount from any moneys due or accruing to the Contractor under this or any other Contract with the Employer.



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7. QUALITY CONTROL

7.1 Manner of Execution

All Plant, goods, and Materials to be supplied shall be manufactured, and all work to be done shall be executed, in the manner set out in the Contract. Where the manner of manufacture and execution is not set out in the Contract, the work shall be executed in a proper, workmanlike and careful manner, with properly equipped facilities and non-hazardous Materials, and in accordance with modern recognized good practice. Approval for such works should be taken well in advance from the Engineer.

7.2

Sources of Materials being supplied shall be intimated to the Engineer and are subject to his approval. Materials that are not specified in the Contract document shall conform to the relevant Indian Standards or its absence conform to any International Standard approved by the Engineer.

Samples for the items shall be supplied by the Contractor at his own cost.

7.3 **Delivery to Site**

The Contractor shall be responsible for procurement, transport, receiving, unloading and safe keeping of all Plant, construction, Materials, Contractor's Equipment and other things required for the completion of the Works.



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7.4 Inspection

The Employer and the Engineer shall at all reasonable times have full access to all parts of the Site and to all places from which natural materials are being obtained, and during production, manufacture, fabrication and construction (at the site and elsewhere) be entitled to inspect, examine, measure and test the materials and workmanship, and to check the progress of manufacture, of all Plant, goods, construction and Materials to be supplied under the Contract.

The Contractor shall give the Engineer full opportunity to carry out these activities including providing access, facilities, permissions and safety equipment's. No such Activity/inspection shall relieve the Contractor from any obligation or responsibility.

7.5 **Testing**

This sub clause shall apply to all tests specified in the Contract, other than the Tests after Completion. The Contractor shall provide all documents and other information necessary for all types of testing and such assistance, labour, materials, electricity, fuel, stores, apparatus and instruments as are necessary to carry out such tests efficiently.

The Contractor shall agree, with the Engineer, the time and place for the testing of any Plant, goods, Materials and other parts of the Works as specified in the Contract. All the mandatory tests for the materials shall be conducted as per MoST/CPWD specification

The Engineer shall give the Contractor not less than 24 hours' notice of his intention to attend the tests. All registers, files etc shall be maintained by the contractor in good condition under the supervision of the Engineer.



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7.6 Rejection

- (i) If, as a result of inspection, examination or testing, any Plant, goods, Material, design or workmanship is found to be defective or otherwise not in accordance with the Contract, the Engineer may reject the same and by giving notice to the Contractor with reasons. The Contractor shall then promptly make good the defect and ensure that the rejected item after rectification complies with the Contract.
- (ii) If the Engineer requires such Plant, goods, Material, design or workmanship to be retested, the tests shall be repeated under the same terms and conditions. If such rejection and retesting cause the Employer to incur additional costs, such costs shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any sum due, or to become due, to the Contractor.
- (iii) Notwithstanding any previous Test or certification, the Engineer shall have the authority to instruct the Contractor:
 - a) To remove from the Site and replace any plant or Materials which is not in accordance with the Contract.
 - b) To remove and re-execute any other work which is not in accordance with the Contract.
 - c) Execute any work which is urgently required for the safety of the Works, whether because of an accident, unforeseeable event or otherwise.
- (iv) In case of default on the part of the Contractor in carrying out such order, the Employer shall be entitled to employ and pay other parties, to carry out the same, and all expenses consequent thereof or incidental thereto, shall be recoverable from the Contractor or may be deducted by the Employer from any sum which may be due to the Contractor.



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7.7 Liability after Inspection and Testing

The Contractor shall not be released from any liability or obligation under the Contract by reason of any such inspection or testing or witnessing of testing, or by the submission of reports of inspection or testing to the Engineer.

7.8 Ownership of Plant and Materials

Deleted



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7.9 Cost of Employer's Attendance Including Travel

The Employer shall bear the costs of attendance including travel by the Employer or his Representative for the purposes of Sub-Clauses 7.4 and 7.5 above. The cost of attendance including travel by the Employer, Engineer or his Representative for the purpose of Sub-clause 7.6 shall be borne by the Contractor.

7.10 Covering up of Works

7.10.1 Examination of work before covering up

No work or part of work shall be covered up or put out of view, without the prior approval of the Engineer or the Engineer's Representative.

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7.11 Tests after Completion



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7.11.1Contractor's Obligations

The Contractor shall carry out the Tests on Completion at his own cost in accordance with the Contract after providing the documents in accordance with Sub-Clauses 5.4 and 5.5. The Contractor shall give, to the Engineer, 21 days' notice of the date after which the Contractor will be ready to carry out the Tests on Completion. Unless otherwise agreed, such Tests shall be carried out within 14 days after this date, on such day or days as the Engineer shall instruct.

Unless otherwise stated in Special Conditions of Contract, the Tests on Completion shall be carried out in the following sequence

- (a) pre-commissioning test, which shall include appropriate instructions and ("dry" or "cold") functional tests to demonstrate that each item of the Plant, goods and Work can safely undertake the next stage
- (b) Commissioning Test shall include the specified operational tests to demonstrate that Works or Sections can be operated safely and as specified under all available operating condition
- (c) trial operation which shall demonstrate that the Works or Section perform reliably and in accordance with the Contract

The Contractor at his cost shall arrange all tools, equipments, gadgets, facilities or as deemed necessary by the Engineer for such tests, In considering the results of the Tests on Completion, the Engineer shall make allowances for the effect of

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any use of the Works by the Employer on the performance or other characteristics of the Works. As soon as the Works, or a Section, have passed the Tests on Completion described in sub-paragraphs (a), (b) or (c), the Contractor shall provide the Engineer and the Employer with a certified report of the results of all such Tests.



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7.11.2Delayed Tests	If the Engineer opines that Tests on Completion are being unduly delayed by the Contractor, the Engineer may by notice require the Contractor to carry out such Tests within 21 days after the receipt of the notice. The Contractor shall carry out such Tests on such day or days as the Contractor may fix and of which he shall give notice to the Engineer. If the Contractor fails to carry out the Tests on Completion within 21 days, the Engineer may proceed with such Tests at the risk and cost of the Contractor. The Tests on Completion then shall be deemed to have been carried out in the presence of the Contractor and the results of such Tests shall be accepted as accurate.
7.11.3Retesting	If the Works, or a part thereof, or a Section, fail to pass the Tests on Completion, Sub-Clause 7.6 "Rejection" shall apply, and the Engineer or the employer may require such failed Tests, and the Tests on Completion on any related work, to be repeated under the same terms and conditions.



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7.11.4Failure to Pass Tests on Completion

If the Works, or a part thereof, or a Section, fail to pass the Tests on Completion repeated under Sub-Clause 7.11.4, the Engineer shall be entitled to:

- (a) order further repetition of Tests on Completion under Sub-Clause 7.11.4;
- (b) reject the Works, or a part thereof, or a Section (as the case may be), in which event the Employer shall have the same remedies against the
- (c) Contractor as are provided under Clause 13; or issue a Taking over Certificate, if the Employer so requires. The Contract

Price shall then be reduced by such amount as determined by the Engineer and as shall be appropriate to cover the reduced value to the Employer as a result of this failure. The Contractor shall then proceed in accordance with his other obligations under the Contract.

7.12 Integrated testing and system commissioning



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7.12.1Integrated Testing	Tests on Completion shall also include Integrated Testing where applicable as per the contract conditions. The Contractor shall, following satisfactory completion of tests on his works, equipment, sub-systems or system, perform, at the direction of the Engineer, programme of tests to verify and confirm the compatibility and complete performance of his works, equipment, sub-systems or system with the works, equipment, sub-systems or system provided by others.
7.12.2Compilation of Test Results	The results of the Integrated Testing and Commissioning shall be compiled and evaluated by the Engineer and the Contractor.
7.12.3Retesting	If the Works, or a part thereof, or a Section, fail to pass the Integrated Testing and Commissioning, the Engineer shall require such failed Tests, to be repeated under the same terms and conditions. If such failure and retesting result from a default of the Contractor and cause the Employer to incur additional costs, the same shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any monies due, or to become due, to the Contractor.

Contractor



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7.12.4Failure to Pass Test

If the Works, or a part thereof, or a Section, fail to pass Integrated Testing and Commissioning and the Contractor in consequence proposes to make any adjustment or modification to the Works or a part thereof, or a section, the Engineer may, with the approval of the Employer, instruct the Contractor to carry out such adjustment or modification, at his own cost and to satisfy the requirements of Integrated Testing and Commissioning within such time as the Employer / Engineer may deem to be reasonable.



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7.12.5Statutory Requirements

The Contractor along with others shall carry out all statutory tests and trials, under the supervision of the Engineer, necessary for obtaining sanction of the competent authority for opening the system for public carriage of passengers.

8. TIME MANAGEMENT

8.1 Commencement of Works

The Contractor shall commence the Works on the date specified in the Letter of Acceptance or if no date is specified in the Letter of Acceptance, on the date specified in an instruction in writing to that effect from the Engineer (Notice to Proceed). Thereafter the Contractor shall proceed with due diligence, without delay, and in accordance with the programme or any revised or modified programme of the Works. Time will be the essence of Contract and time for Completion shall run from the date the Contractor is to commence the Works under this Clause.

The Contractor shall not commence the construction, manufacture or installation of the Works or of any part of the Works unless and until the Engineer has endorsed the relevant Working Drawings in accordance with the Employer's Requirements.

8.2 Time for Completion

Time is the essence of Contract and will remain so at all times during the pendency of the Contract including the extended period of Contract. The Contractor shall ensure defect free completion and have passed the tests on the completion, including integrated testing where ever in the scope of work and commissioning of the whole of the Works and/or parts thereof before the same is taken over by the Employer.



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8.3 Delay

In case of delay on the part of the Contractor, the Contractor shall be liable to pay liquidated damages and any other compensation for the damages suffered by the Employer as per clause 8.5. This is without prejudice to the right of the Employer to rescind the Contract.

Failure or delay by the Employer or the Engineer, to hand over to the Contractor the Site necessary for execution of Works, or any part of the Works, or to give necessary notice to commence the Works, or to provide necessary Drawings or instructions or clarifications or to supply any material, plant or machinery, which under the Contract, is the responsibility of the Employer, shall in no way affect or vitiate the Contract or alter the character thereof; or entitle the Contractor to damages or compensation thereof but in any such case, the Engineer shall extend the time period for the completion of the Contract, as in his opinion is / are reasonable.

8.4 Extension of Time for Completion



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8.4.1 Extension of Time

The Contractor may apply for an extension of the Time for Completion if the Work is or will be delayed either before or after the Time for Completion by any of the following causes:

- a) "Force Majeure" referred to in Clause 16
- b) The Contractor's work held up for not being given possession of or access to the Site in accordance with the Contract
- c) Instruction of the Engineer to suspend the Works and the Contractor not being in default as to reasons of suspension.
- d) Acts or omissions of other Designated Contractors in executing work not forming part of this Contract and on whose performance, the performance of the Contractor necessarily depends.
- e) Any act of prevention or Breach of Contract by the Employer and not mentioned in this Clause
- f) Any order of Court restraining the performance of the Contract in full or in any part thereof
- g) Any other event or occurrence which, according to the Employer is not due to the Contractor's failure or fault, and is beyond his control without Employer being responsible for the same.
- h) An Employer's Variation

However, the Contractor shall not be entitled to any extension of time where the instructions or acts of the Employer or the Engineer are necessitated by or intended to cure any default of or breach of Contract by the Contractor or where any delay is due to



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- a) the failure of sub-contractor, to commence or to carry out work in due time,
- b) non-availability, or shortage of Contractor's equipment, labour, utility services, Plant and Materials,
- c) inclement weather conditions, and
- d) the Contractor not fulfilling his obligations under Sub-Clause 4.4.

If the Contractor considers himself to be entitled to an extension of time for Completion, he shall give notice to the Engineer of such intention as soon as possible and in any event within 28 days of the start of the event giving rise to the delay and full and final supporting details of his application within 21 days of the last day of delay, together with any notice required by the Contract and relevant to such Clause.

The Engineer shall proceed in accordance with Sub-Clause 3.5 to agree or determine either prospectively or retrospectively such extension of the Time for Completion as may be due. The Engineer shall notify the Contractor accordingly. The extension of time including that of key date shall not entitle the contractor to retain the advance which shall be governed by Clause 11.2.



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8.4.2 Extension of time for completion for other reasons

The Contractor shall not be entitled to an extension of time by reason of any delay to any activity in the carrying out of the Works unless in the opinion of the Engineer such delay results in or may be expected to result in a delay to completion of the Works, or achievement of any Stage by the relevant Key Date. Whether or not the Contractor fails to achieve any Milestone by reason of any delay shall not by itself be material to the Contractor's entitlement to an extension of time.

Any extension to a Key Date shall not by itself entitle the Contractor to an extension to any other Key Date.

8.4.3 Extension of time for delays due to Contractor

If the delay in the completion of the whole Works or a portion of the Works, for which an earlier completion period is stipulated, is due to the Contractor's failure or fault, and the Engineer is of the view that the remaining Works or the portions of Works can be completed by the Contractor in a reasonable and acceptable short time, then, the Engineer may allow the Contractor extension or further extension of time at its discretion with or without liquidated damages, for completion, as he may decide.



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8.5 Liquidated Damages for Delay

Time is the essence of the Contract. Appendix to the Form of Tender shall include in respect of the Works and in respect of any Stage, a percentage of the total contract value which will be recoverable from the Contractor as liquidated damages for delay in completion of the Works or in achievement of a stage by a particular Key Date. The total amount of liquidated damages in respect of the Works in all stages shall, however, not exceed the limit of liquidated damages stated in the Appendix to the Form of Tender. The aforesaid liquidated damages do not, however, include the sums payable by the Employer to Designated Contractors on account of delay caused by the Contractor to Designated Contractors which sums shall be recoverable from the Contractor in addition to any liquidated damages payable under this clause, the total ceiling limit of which is 15% of the contract value including liquidated damages levied under the provision of Appendix 1 to the Form of Tender.

The liquidated damages are recovered by the Employer from the Contractor for delay and not as penalty.

The Employer may, without prejudice to any other method of recovery, deduct the amount of such damages from any sum due, or to become due, to the Contractor. In the event of an extension of time being granted under Sub-Clause 8.3, the amount due under this Sub-Clause shall be recalculated accordingly, and any over-payment refunded. The payment or deduction of such damages shall not relieve the Contractor from his obligations to complete the Works, or from any other of his duties, obligations or responsibilities under the Contract.

The Contractor shall use and continue to use his best endeavours to avoid or reduce further delay to the Works, or any relevant Stages.

At any time after the Employer has become entitled to liquidated damages, the Engineer may give notice to the Contractor under Sub- Clause 13.1, requiring the Contractor to complete the Works within a specified reasonable time. Such

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action shall not prejudice the Employer's entitlements to recovery of liquidated damages, under this Sub-Clause and to terminate under Sub- Clause 13.2.

The decision of the Engineer as to the liquidated damages payable by the Contractor under this Clause shall be final and binding



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8.6 Rate of Progress

If for any reason which does not entitle the Contractor to an extension of time, the rate of progress of the Works is at any time, in the opinion of the Engineer, too slow to ensure timely completion of the Works or achievement of any Stage by the relevant Key Date the Engineer may so notify the Contractor in writing. The Contractor shall thereupon take such steps as are necessary, or in default of taking such steps, shall take such steps as the Engineer may reasonably instruct in writing, to expedite progress so as to complete the Works or any Section in time or achieve any Stage by the relevant Key Date. The Contractor shall not be entitled to any additional payment for taking such steps.

If any steps taken by the Contractor in meeting his obligations under this Sub-Clause cause the Employer to incur additional costs, such costs shall be recoverable from the Contractor by the Employer, and shall be deducted by the Employer from any sum due, or to become due, to the Contractor.

If, in the opinion of the Engineer, the steps taken by the contractor to expedite the progress are not adequate, the Engineer may take a recourse as per Clause 13.2.4 of this GCC.

8.7 Suspension of Work

The Engineer may at any time instruct the Contractor to suspend progress of part or all of the Works. During suspension, the Contractor shall protect, store and secure such part or whole of the Works against any deterioration, loss or damage.



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8.8 Consequences of Suspension

The Contractor shall not be entitled to extra cost (if any), incurred by him, during the period of suspension of Work., if such suspension is

- a) provided for in the Contract, or
- b) necessary for proper execution of Woks or by reasons of weather condition or by some default on the part of the Contractor, or
- c) necessary for the safety of Works or any part thereof or
- d) necessary for the safety of adjoining public or other property or safety of the public or workmen or those who have to be at the site or
- e) to ensure safety and to avoid disruption of traffic and utilities, as also to permit fast repairs and restoration of any damaged utilities,

If suspension is ordered by the Engineer for reasons other than those mentioned in sub-clause 8.8 then the Contractor's entitlement are in the table below:

Suspension	Extension	Compensation for	Remarks
Period	of Time	the suspension	
		period	
Upto 14 days	NO	NO	Engineer may, at his
			sole discretion give
			extension time in
			exceptional
			circumstances
15-30 days	YES	NO	Extension of time as
			considered proper
			by the Engineer
Above 30 days	YES	As per Daily rate of	Compensationas
		wages for idle	assessed by the
		labour/employees	Engineer on
		70% of the rate for	submission of
			documentary proof



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		hire charges for idle	by the Contractor to
		plant and	Engineer's
		Machinery	satisfaction
		(excluding cost of	
		fuel and lubricants)	
		15% above all these	
		items to cover	
		overhead costs.	
Above90 days	NO	As per Clause	Contractor may ask
If Contractor		13.3.4	for closure of the
asks for fore			Contract, or deletion
closure			from the Contract of
			that part of Works
			which has been
			suspended.
	II .		

Section VI. General Conditions (GC)

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9.1 Taking Over Certificate

The Works shall be taken over by the Employer when they have been completed in accordance with the Contract, have passed the Tests on Completion, including Integrated Testing and Commissioning where ever applicable as per the contract, and a Taking Over Certificate for the Works shall be issued. If the Works are divided into Sections, the Contractor shall be entitled to apply for a Taking Over Certificate for each Section.

The Contractor may apply by notice to the Engineer for a Taking-Over-Certificate not earlier than 14 days before the works or section (as the case may be) will, in the Contractor's opinion, be complete and ready for taking over. The Engineer shall, within 28 days after the receipt of the Contractor's application shall conduct a complete joint survey of the works including carrying out any tests prescribed in the contract and prepare a list of defects and outstanding works and:

- a) issue the Taking Over Certificate to the Contractor, stating the date on which the Works or Section were completed, including the Tests on Completion and Integrated Testing and Commissioning where ever applicable as per the contract in accordance with the Contract if defects and/or outstanding works are minor that does not affect the use and safety of the Works or Section for their intended purposes. The list of such works along with the target date of completion for each work shall be enclosed with the taking over certificate and completion of all these works /rectification of defects within the stipulated time shall be the responsibility of the contractor and any failure in it may be considered a reason by the Engineer to cancel the taking over certificate issued earlier; or
- b) reject the application, giving his reasons and specifying the work required to be done by the Contractor to enable the Taking Over Certificate to be



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issued. The Contractor shall then complete such work before issuing a further notice under this Sub-Clause.

9.2 Taking over of Parts of the Works

The Engineer may, at the sole discretion of the Employer issue a Taking Over Certificate for any part of the Permanent Works by following the procedure stipulated in Clause 9.1 above if:

- a) the Employer uses that part of the Works for revenue service before the Taking Over Certificate is issued for the entire work.
- b) the balance part is not completed not due to the fault of the contractor and contractual date of completion for the completed part is over.



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10. DEFECTS LIABILITY

10.1 Completion of Outstanding Work and Remedying Defects

"Defects Liability Period" shall mean the defects liability period stated in the Special Conditions of Contract calculated from the date of taking over of the Works. Provided that, if any part of the Works or sub-systems or component of that part has been replaced, renewed or repaired except minor repair, the "Defects Liability Period" in respect of that part or sub-system or components of that part shall start from the date such replacement, renewal or repair has been completed to the satisfaction of the Engineer.

In order that the Construction Documents and the Works shall be in the condition required by the Contract (fair wear and tear excepted) at, or as soon as practicable after the expiry of the Contract Period, the Contractor shall execute all such work of amendment, reconstruction, and remedying defects or damage, as may be instructed in writing by the Employer or the Engineer during the Defect Liability Period.



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10.2 Cost of Remedying Defects

All work referred to in Sub-Clause 10.1shall be executed by the Contractor at his own cost, if the necessity for such work is due to:

- a) the design of the Works;
- b) Plant, Materials or workmanship not being in accordance with the Contract; or
- c) failure by the Contractor to comply with any of his other obligations.

If in the opinion of the Engineer, such necessity is due to any other cause, he shall determine an adjustment to the Contract Price, with the approval of the Employer, and shall notify the Contractor accordingly. In this event, Sub-Clause 12.3 shall apply to such work.

10.3 Extension of Contract Period

The Contract Period shall be extended by a period, after the Works are taken over, during which the Works or any Section or item of Plant, cannot be used, for the purposes for which they are intended, by reason of a defect or damage.

When delivery of Plant, and/or Materials, or erection of Plant, or installation of Materials, has been suspended under Sub-Clause 8.7, the Contractor's obligations under this Sub-Clause shall not apply to any defects or damage occurring more than three years after the Plant, Rolling Stock and/or Materials would otherwise have been delivered, erected and taken over.



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10.4 Failure to Remedy Defects

If the Contractor fails to remedy any defect or damage within such time as the Employer / Engineer may deem to be reasonable, the Employer or the Engineer may fix a date on or by which to remedy the defect or damage, and give the Contractor reasonable notice of such date. If the Contractor fails to remedy the defect or damage by such date and the necessity for such work is due to a cause stated in Sub-Clause 10.2(a), (b) or (c), the Employer may (at his sole discretion):

- a) carry out the work himself or by others, in a reasonable manner and at the Contractor's risk and cost, but the Contractor shall have no responsibility for such work: the costs incurred by the Employer in remedying the defect or damage shall be recoverable from the Contractor by the Employer;
- b) require the Engineer to determine and certify a reasonable reduction in the Contract Price; or
- c) if the defect or damage is such that the Employer has been deprived of substantially the whole of the benefit of the Works or parts of the Works, terminate the Contract in respect of such parts of the Works as cannot be put to the intended use, the Employer shall then be entitled to recover all sums paid for such parts of the Works together with the cost of dismantling the same, clearing the Site and returning Plant and Materials to the Contractor, and Sub-Clause 13 shall not apply.

10.5 Removal of Defective Work

If the defect or damage is such that it cannot be remedied expeditiously on the Site and if the Employer gives consent, the Contractor may, remove from the Site for the purposes of repair any part of the Works, which is defective or damaged. This consent may require the Contractor to increase the amount of Performance Security by the full replacement cost of these items or to provide other appropriate security acceptable to the Employer.



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10.6 Further Tests

If the remedying of any defect or damage is such that it may affect the performance of the Works, the Engineer may require that Tests on Completion, including Integrated Testing, be repeated to the extent necessary. The requirement shall be made by notice within 28 days after the defect or damage remedied. Such Tests shall be carried out in accordance with Clause 7.11

10.7 Right of Access

Until the Performance Certificate has been issued, the Contractor shall have the right of access to all parts of the Works and to records of the working and performance of the Works, except as may be inconsistent with any reasonable security restrictions by the organisation responsible for operating the Works.

10.8 Contractor to Search

The Contractor shall, if required by the Engineer, search for the cause of any defect, under the direction of the Engineer. Unless the defect is one for which the Contractor is liable, the Cost of such search shall be added to the Contract Price.

10.9 Performance Certificate

The Contract shall not be considered to be completed until the Performance Certificate has been signed by the Engineer and delivered to the Contractor at the end of 'Defect Liability Period, stating the date on which the Contractor completed his obligations related to completion of works and rectification of defects during Defect Liability Period to the Engineer's satisfaction. Only the Performance Certificate shall be deemed to constitute approval of the Works.



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10.10Unfulfilled Obligations

After the Performance Certificate has been issued, the Contractor and the Employer shall remain liable for the fulfilment of any obligation, which remains unperformed at that lime. For the purposes of determining the nature and extent of any such obligation, the Contract shall be deemed to remain in force.

10.11Emergency defect rectification

If any defect or damage is one requiring immediate attention from safety, environmental or operational viewpoint, the Engineer has the authority to proceed with rectification in any manner suitable and deduct such sums from the Contract Price.

11. CONTRACT PRICE AND PAYMENT

11.1 The Contract Price

11.1.1

- (i) Unless otherwise stated in the Special Conditions of Contract the Contract Price, subject to any adjustment thereto in accordance with the Contract shall be all inclusive (including all taxes, duties, royalties etc.) excluding GST, Value Added Tax (VAT) paid under VAT act 2005 where work is done in Kerala. Value added tax (VAT) paid under other State Govt VAT act if work is done in that state.
- (ii) Nothing extra shall be payable over the quoted rates, notwithstanding any provision to the contrary in any law for the time being



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in force, save and except what is specifically
provided in General or Special Conditions of
Contract.

(iii) The reimbursement (as per this Sub-clause) of whatsoever nature shall be provided only for Permanent Works. No reimbursement (as per this Sub-clause) shall be provided for Temporary Works and fuel.

11.1.2 Maintaining records and Availing Exemptions

- In the event of exemption of custom duties, excise duties, GSTCST/VAT or any other cess/levy being granted by the Government in respect of the Works, the benefit of the same shall be passed on to Employer. The therefore Contractor shall maintain meticulous records of all the taxes and duties paid and provide the same as and when required by the Employer, so that the Employer is able to avail the reimbursement for which CSML may issue a procedure order separately. Alternatively, the Employer may direct the Contractor the to get reimbursements based exemption on certificates / government's order and it shall be obligatory on part of the Contractor to get the reimbursements from the statutory authorities and pass on the benefit to CSML.
- (ii) In case of Contractor's failure in availing the exemptions as stipulated above, the recovery of equivalent amount will be made from Contractor's dues.



11.1.3 Adjust in Contract Price	Adjustment in contract price on account of inflation shall be done only if a "Price Variation Formula" is given in the special conditions of contract otherwise it will be a fixed price contract.
11.1.4 Change in Taxes/ Duty	The Contract Price shall not be adjusted to take into account any increase or decrease in cost resulting from any change in taxes, duties, levies from the last date of submission of the Tender to the completion date including the date of the extended period of Contract unless a contrary provision exists in Special Conditions of Contract
11.2 Advances	
11.2.1 Mobilisation Advance	Mobilisation advance shall be generally 10% of original contract value payable in two equal instalments or as mentioned in the Special Conditions of Contract and shall be payable in one or two equal instalments as specified in Special Conditions of Contract. The first instalment shall be paid after mobilisation has started and next instalment shall be paid after satisfactory utilization of earlier instalment.
	Mobilisation advance shall be paid interest free against acceptable Bank Guarantee from a scheduled commercial bank in India. The Contractor, once the 50% of mobilisation advance has been recovered, shall have a onetime option to reduce the Bank Guarantee for the mobilisation advance by the amount recovered.



11.2.2 Written Request for Advances	Advances as admissible, shall be payable only on Contractor's written request to the Employer.
11.2.3 Recovery of Advances	 a) The recovery of Advances shall commence when 20% of the original contract value of the work has been paid and it will be completed by the time 85% of the Contract Value has been paid or the original completion date whichever is earlier. As far as possible the recovery of advances shall be limited to 30% of an account bill. b) No advance shall be given after 40% of the original contract amount has been paid. c) The contractor shall always have the option to have the recoveries commenced and / or completed earlier, and / or to have recoveries affected in instalments of higher amount and also to repay part or whole of the advance by direct payment rather than through Onaccount Bills.
11.2.4 Interest in Case of Delay in Repayment of Advances	Should there be delay in the progress and completion of work, as a result of which it is not possible to recover the advance and interest thereon, before the date of completion stipulated in the Contract or its extended period, then the interest to be charged from the Contractor on the remaining portion of the advance beyond the original completion date specified in the Contract, shall be the State Bank of India prime lending Rate plus 2% per annum or 10% per annum whichever is higher.



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11.2.5 Advances to be Used Only for This Work

The advances shall be used by the Contractor strictly for the purpose of the Contract, and for the purpose for which they are paid. Under no circumstances, shall the advances be diverted for other purposes. Any such diversion shall be construed as a breach of the Contract and the Contractor shall be asked to return the advance at once and pay interest at 15% per annum till the advance is recovered back from him. The Contractor shall return the advance and pay the interests in one go without demur.

Employer retains the right for any other remedy prescribed for breach of Contract in this regard.

The Contractor, if required by the Engineer shall provide the details of utilisation of Mobilization advance.

11.3 Provisional Payment against Material at Site

11.3.1

A provisional payment on account of main construction materials required for the Permanent Works, shall be paid on request of the Contractor after these materials are brought to Site, against an Indemnity Bond in a form acceptable to Employer is duly executed. The payment schedule of major electrical items is shown in table 11.3.5



11.3.2 Written Request for Advances/Provisional Payment against material at site	Advances and provisional payments as admissible, shall be payable only on Contractor's written request to the Employer/Engineer.
11.3.3 Recovery of Advances/Provisional Payment	 a) The recovery of Advances shall commence when 20% of the original Contract Value of the work has been paid and it will be completed by the time of original Date of Completion. As far as possible the recovery of advances shall be limited to 30% of on- account bill. b) No advance shall be given after 40% of the original contract amount has been paid. However, provisional payment against material at site will continue to be paid as stipulated in Clause 11.3 till end of the contract period. c) In case of provisional payment against Materials, the amount consumed every month shall be recovered from the next months on account bill and completing the recovery in 3 monthly instalments. In case recovery could not be made due to any reason, interest will be charged as per Clause 11.2.5.
11.3.4 Documents for payment	Payment of the supply & Installation value of equipment will be made on submission of following documents:
	a) Certificate from the Purchaser / Employer of having receipt of Performance Bank Guarantee.b) Invoice in duplicate.c) Site Acceptance Test (SAT) Certificate from purchaser. consignee / successful Installation,



	testing, commissioning, Training of equipment along with necessary operational training to its staff at the site as indicated in purchase order. d) Insurance Copy (transit plus storage). e) Packing list.
	Payment of O & M charges shall be made on quarterly basis at the end of the quarter against the consignee's certificate indicating that firm has successfully maintained the equipment during the claim period. Payment should be followed strictly as per terms and conditions of Tender Documents and Tax as applicable will be deducted.
11.3.5 Payment schedule	The schedule of payments shall be as included in the Contract. If the Contract does not include a schedule of payments, the Contractor shall submit non-binding estimates of the payments which he expects to become due during each quarterly period. The first estimate shall be submitted within 28 Days after the Commencement Date. Revised estimates shall be submitted at quarterly intervals, until the Taking-Over Certificate has been issued for the Works. The percentage quoted in the Bid and accepted in the Contract will be deducted / added from/to the gross amount of the bill.
11.4 Application for Interim Payment Certificates	
11.4.1	In case of 'Lump Sum' contract with cost centre and Milestone payment, the fixed Lump Sum Price shall be apportioned by the Contractor amongst the various Cost Centre's. The amount thus



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apportioned under each Cost Centre will be further apportioned amongst various Milestones with the approval of the Employer. The Contractor shall be entitled to submit to the Engineer requests for interim payments only upon the achievement of one or more of the Milestones described in the Cost Centre.

At the beginning of each month, the Engineer shall issue to the Contractor certificate in respect of each Milestone due to be achieved in the preceding month stating:

- a) the date on which the Milestone was achieved; or
- b) the non-achievement of the Milestone.

The Contractor shall submit a statement in three copies to the Engineer at the beginning of each month, in a form approved by the Engineer, showing the amounts to which the Contractor is entitled, together with supporting documents, including Milestone Certificates. The statement shall include the following items, as applicable, which shall be expressed in the various currencies in which the Contract Price is payable, in the sequence listed:

- a) the amount due in respect of Milestones certified achieved by the Engineer under each Cost Centre;
- b) any amounts to be added and deducted for the advance payments and recovery thereof;



	 c) any other additions or deductions is due and approved by the Engineer in accordance with the Contract; and d) The deduction of the amounts certified in all previous Interim Payment Certificates.
	The Contractor shall not submit more than one request for interim payment per month.
	If any Milestone is not achieved by the end of the month in which it is scheduled to be achieved, the Engineer shall suspend the payment relating to the Cost Centre in which the Milestone is included.
	Payments suspended under this Clause shall be resumed by being included in the next application for interim payment made after the Milestone is achieved.
11.4.2	In case of 'Lump Sum' or Item rate' contracts with payment schedule, the contractor shall be entitled to be paid from time to time, normally once in a calendar month, by way of 'on account' bill as per the payment schedule indicated in Bill of Quantity (BOQ) or as finally approved by the Engineer.



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11.5 Issue of Interim Payment Certificates

No amount will be certified or paid until the Employer has received, and approved, the Performance security and the parent Company Undertakings and Guarantees in accordance with Sub-Clause 4.2. Thereafter, the Engineer shall, within 21 days of receiving a statement and supporting documents, deliver to the Employer, with a copy to the Contractor, an Interim Payment Certificate showing the amount which the Engineer considers to be due; if no payment is considered to be due, the Engineer shall promptly notify the Contractor accordingly. Where only a part of the payment applied for is disputed, payment certificate shall be issued for the undisputed amount.

The Engineer shall have the power to omit from any of the contractor's requests for payment the value of any work executed or Materials supplied or services rendered, with which he may for the time being be dissatisfied and for that purpose and for any other reason which to him may seem proper, may delete, correct or modify the sum(s) previously certified by him as being due to the Contractor.



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11.6 Payment - Interim and Final

Unless otherwise stated in Special Conditions of Contract,

- a) After preliminary scrutiny and certification by the Engineer, payment of 80% of the certified interim amount shall be made by the Employer within 14 days. The amount certified shall account for all deductions, including statutory deductions, recoveries for advances and any amounts due from the Contractor. The balance 20% shall be paid within 28 days, from the date of the preliminary certification of the bill by the Engineer.
- b) Next 80% interim payment shall be made only after 100% payment of preceding interim payment certified has been completed.
- c) The Employer shall pay the amount certified in the Final Payment Certificate within 56 days from the date of issue of the Certificate.

Payments shall be made into a bank account, nominated by the Contractor in Indian rupees in a bank in India unless otherwise permitted in Special Conditions of Contract. If payments are to be made in more than one currency, separate bank accounts may be nominated by the Contractor for each currency, and payments shall be made by the Employer accordingly.



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11.7 Statement at Completion

Not later than 60 days after the issue of the Taking Over Certificate for the whole of Works, the Contractor shall submit, to the Engineer, three copies of a statement at completion with supporting documents, showing in detail, in the form approved by the Engineer under Sub-Clause 11.4.

- a) the final value of all work done in accordance with the Contract, up to the date stated in such Taking Over Certificate,
- b) any further sums which the Contractor considers to be due, and
- c) an estimate of amounts which the Contractor considers will become due to him under the Contract.

The estimated amounts shall be shown separately in such statement at completion. The Engineer shall certify payment under Sub-Clause 11.5.



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11.8 Application for Final Payment Certificate

Not later than 56 days after the issue of the Performance Certificate, the Contractor shall submit to the Engineer three copies of a draft final statement with supporting documents showing in detail, in a form approved by the Engineer:

- a) the value of all work done in accordance with the Contract, and
- b) any further sums which the Contractor considers to be due to him under the Contract or otherwise.

If the Engineer disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the Engineer may reasonably require and shall make changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Engineer the Final Statement as agreed.

If, following discussions between the Engineer and the Contractor and any changes to the draft final statement which may be agreed between them, it becomes evident that a dispute exists, the Employer shall pay those parts of the draft final statement as certified by the Engineer as not being in dispute. The remainder of the dispute may then be resolved under Clause 17, in which case the Contractor shall then prepare and submit to the Engineer a Final Statement in accordance with the outcome of the dispute.

11.9 Retention

5% retention is applicable to all running account bills. The retention money will be released after the successful completion of work. Contactor can apply for early release of retention against Bank Guarantee once the retention amount surpasses 2.5% of value of contract.



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11.10Issue of Final Payment Certificate

The Engineer shall issue to the Employer, with a copy to the Contractor, the Final Payment Certificate within 28 days after receiving the Final Statement and written discharge in accordance with Sub-Clause 11.7 and 11.8, stating:

- a) the amount which is finally due, and
- b) after giving credit to the Employer for all amounts previously paid by the Employer and for all sums to which the Employer is entitled, the Balance, if any, due from the Employer to the Contractor or from the Contractor to the Employer, as the case may be.

If the Contractor has not applied for a Final Payment Certificate in accordance with Sub-Clauses 11.8 and 11.9, the Engineer shall request the Contractor to do so. If the Contractor fails to make such an application within a period of 28 days, the Engineer shall issue the Final Payment Certificate for such amount as he considers to be due.

11.11Cessation of Employer's Liability

In respect of any matter or thing arising out of (or in connection with) the contract or execution of the Works before the issue of the Taking over Certificate for the whole of the Works, the Employer shall not be liable to the Contractor unless the Contractor shall have included a claim for it in his Statement at Completion described in Sub-Clause 11.7. For any such matter or thing arising after the issue of the Taking Over Certificate for the whole of the Works, the Employer shall not be liable to the Contractor unless the Contractor shall have included a claim for it in his Final Statement.



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11.12 Calculations of Payments in Foreign Currency

All payments made by the Employer pursuant to the terms of the Contract shall be in the currency or currencies specified in the Contract. Wherever any sum in a foreign currency has to be converted into Indian Rupees for any purpose, the exchange rate to be employed for such conversion shall be the selling rate of exchange at the close of business of the State Bank of India 28 days before the latest date of submission of Tenders.



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11.13 Round Off

In every payment to the Contractor, sums of less than fifty paisa shall be omitted and sums of fifty paisa and more up to one rupee shall be reckoned as one rupee.

11.14 Payment by Cheque and E- Payment

All payments to the Contractor will be made by cheque or "E-Payment" as desired by the Employer.

11.15 Tax Deduction at Source

Tax deductions will be made at source as per statutory requirement from every payment made to the Contractor at rates notified from time to time.



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11.16 Production of Vouchers

- to be produced for examination by the Engineer, any quotation, invoice, cost or other account books, vouchers, receipts, letters, memoranda or any copy of or extract from any such documents and also furnish information and returns, as may be required, relating to the execution of this Contract or relevant for verifying or ascertaining the cost of execution of this Contract or ascertaining the Materials supplied by the Contractor are in accordance with the Specifications laid down in the Contract. The Engineer's decision on the question of relevancy of any documents, information or returns shall be final and binding on the parties.
- ii) If any part or item of the work is allowed to be carried out by a sub-Contractor, assignee or any subsidiary or allied firm, the Engineer shall have power to secure the books of such sub-Contractor, assignee or any subsidiary or allied firm through the Contractor, and shall have power to examine and inspect the same. The above obligations are without prejudice to the obligations of the Contractor under any statute, rules or orders.



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11.17 Withholding and Lien for Sums Claimed

- i) The Employer shall have lien over all or any moneys that may become due and payable to the Contractor under the Contract, and / or over the deposit of Performance Security or other amount or amounts made under the Contract and which may become payable to the Contractor.
- ii) And further, unless the Contractor pays and clears immediately on demand any claim of the Employer, the Employer shall at all times be entitled to deduct the amount of the said claim from the moneys, securities and / or deposits which may have become or will become payable to the Contractor under these presents, or under any other Contract or transaction whatsoever between the Employer and the Contractor even if the matter stands referred to Arbitration. The Contractor shall have no claim for any interest or damage whatsoever in respect of any amounts withheld or treated as withheld under the lien referred to above and duly notified as such to the Contractor.

11.18 Signature on Receipts for Payment

Every receipt of payment to Contractor including refund of the Performance Security shall be signed by the person authorized to do so on his behalf. In the event of death of any of the Contractor's partners in case the Contractor is a partnership firm, during the currency of the Contract, it is hereby expressly agreed that every receipt by any one of surviving Contractor's partners, shall, if so signed as aforesaid, be a good and sufficient discharge as aforesaid, provided that nothing in this Clause shall be deemed to prejudice or affect any claim, which the Employer may hereafter have against the legal representatives of any Contractor's partner so dying, for or in respect of breach of any of the conditions of the Contract. Provided also that nothing contained in this clause shall be deemed to prejudice or affect the respective rights and obligations of the Contractor's partners, or of the legal heirs / representatives of any deceased Contractor / partner inter se.



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11.19 Post Payment Audit

It is an agreed term of the Contract, that the Employer reserves to himself the right to carry out a post payment audit and / or technical examination of the Works, and the Final bill including all supporting vouchers, abstracts, etc., and to make a claim on the Contractor for the refund of any excess amount paid to him, if as a result of such examination, any over-payment to him is discovered to have been made in respect of any work done or alleged to have been done by the Contractor, under the Contract. If any under-payment is discovered, the same shall be paid by the Employer to the Contractor. Such payments or recoveries, however, shall not carry any interest.

11.20 Recovery of Money due to the Employer

All damages (including, without limitation, liquidated damages), costs, charges, expenses, debts, or sums for which the Contractor is liable to the Employer under any provision of the Contract may be deducted by the Employer from monies due to the Contractor under the Contract (including, without limitation, liquidated damages) and the Employer shall have the power to recover any balance not so deducted from monies due to the Contractor under any other contract between the Employer and the Contractor.

When the Contractor has assigned to a third party the right to receive monies due, or, to become due, under the Contract to the Contractor or charged such monies in favour of a third party, the Employer's right to deduct damages (including without limitation liquidated damages), costs, charges, expenses, debts or sums for which the Contractor is liable to the Employer from monies due to the Contractor under the Contract shall be limited to the right expressed above. The contractor shall not assign his right to receive the money due to a third party without a written consent from the Employer.

12. VARIATIONS



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12.1Right to Vary

All Variations shall be recorded in a written instruction from the Engineer either as a Contractor's Variation or as an Employer's Variation, and shall not be implemented by the Contractor without such an instruction in writing from the Engineer. No Variation shall in any way vitiate or invalidate the Contract. The Contractor shall not make any alteration and/or modification of the Works, unless and until the Engineer instructs or gives consent to a Variation. If the Construction and/or Manufacture Documents or Works are not in accordance with the Contract, the rectification shall not constitute a Variation.

12.2Contractors Variation

12.2.1 Variation Proposals

The Contractor may submit to the Employer, in writing at its own cost, any engineering proposal as contractor's variation for modifying the Employer's Requirements, provision of additional land, access or feasibility over and above that is provided in the Contract for the purpose of saving in time, construction or manufacture costs. Such variation proposal shall not impair the essential character, functions or characteristics or the Work, including service life, economy of operation, ease of maintenance, desired appearance, or design and safety standards.

The Contractor shall provide his variation proposal in a time limit prescribed by the Engineer. The Engineer's decision in this regard shall be communicated to the Contractor within a reasonable period of time. If by any reason the time limit specified by the Engineer is exceeded, the proposal may not be considered. The decision of the Engineer in this regard shall be final and binding.



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12.2.2 Contents of Variations	If the Employer requires or accepts it, and if the Contractor wants to proceed with the proposal, the Contractor must provide (at no cost to the Employer) a detailed report prepared by a consultant acceptable to the Employer and which shall include: (a) a general description of the original Contract requirements for the Works and the proposed changes (b) a detail of all the proposed modifications to the drawings and specifications (c) a detail of all Work and goods affected by the value engineering proposal (d) a detailed estimate of the construction cost based on the original Contract requirements and based on the proposed changes (e) any resultant time extensions or reductions for the Contract (f) Statement to the extent of minimum saving expected. The Contractor's cost of preparing the variation proposal shall be excluded in determining the estimated net savings in construction costs.
12.2.3 Employer Review	The Employer may in his sole discretion, accept or reject the contractor's variation or any part thereof and determine the estimated net saving in the construction cost. The Employer shall not be liable for delays or damages to the Contractor due to any failure of the Employer to accept or act upon any such variation proposal submitted pursuant to this



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	Clause. Once, the Employer or the Engineer rejects the contractor's variation during proposition due to any reason, it shall not be pursued by Contractor in any other form.
12.2.4 Amendments- Employer Issuance	If the variation proposal is acceptable to the Employer/Engineer in whole or in parts, it will accept by execution of an amendment. Such amendment shall identify all the changes in the specifications, Contract Period etc. and shall specify net savings on construction costs which shall be adjusted in the contract value by the Employer.
12.2.5 Contractor's Acceptance and Payment	The Contractor shall either accept or reject any proposed amendment executed by the Engineer pursuant to this section within 5 working days of its receipt date from the Employer. If the Contractor does not reject the same in the period stipulated above, the amendments shall be deemed to be accepted by the Contractor and shall become a variation to the Contract. The Contractor's acceptance shall be unconditional and the contract value / price shall be adjusted by the amount of saving due to the variation.

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12.3Employer's Variations

If the Engineer requests a proposal, prior to instructing a Variation which may be for additional work or alteration in the work on deletion / reduction in the scope of work, the Contractor shall submit at his own cost within 14 days or such period as the Engineer may allow of the receipt of such request of the Engineer.

- (a) a description of the proposed design and/or work to be performed and a programme for its execution,
- (b) The Contractor's proposal for any necessary modifications to the programme according to Sub-Clause 4. 13, and
- (c) the Contractor's proposal for adjustment to the Contract Price, Time for Completion and/or modifications to the Contract.

12.4Variation Procedure

The Engineer shall, as soon as practicable after receipt of proposals under subclauses 12.2 and / or 12.3, respond with approval, rejection or comments.

If the Engineer instructs or approves a Variation, he shall proceed in accordance with Sub-Clause 3.5 to agree or determine adjustments to the Contract Price, Time for Completion and Schedule of Payments.

After receipt of proposal, it will be the prerogative of the Employer, whether to Instruct and proceed ahead with the variation or drop the proposal in part or full. In that case, no cost of preparing and submitting the proposal will be payable to Contractor. In case, the design part of variation has been completed on submission of same to the Engineer, the Employer decides to abandon the variation, only cost for design to the extent of work done will be paid to the Contractor.



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12.5Variation in Bill of Quantities

- i) The quantities of items shown in the Bill of Quantities are approximate, and liable to vary during the actual execution of the work. Some items/group of items may have to be altered, added or omitted. The Contractor shall be bound to carry out and complete the stipulated work as instructed by the Engineer, irrespective of the magnitude of variations including additions, alterations or omissions in the Bill of Quantities, individual items or group of items, specified in the Bill of Quantities.
- ii) Such variations shall be paid as follows:
 - (a) At the accepted rates of the Contract for Positive variation in quantities to the extent of 25%, except in the case of foundation works. Unless otherwise specifically provided for in the Bill of Quantities or elsewhere in the Contract, the variation of 25% shall be applicable to a group of items mentioned therein and not to individual items. In case of variation in quantities on minus side, contract rates will be payable for executed quantities.
 - (b) In case of foundation work, no variation limit applies and Contractor shall carry out the Work, at rates stipulated in the Contract irrespective of any variation.
 - (c) In case of earth work, the aforesaid variation limit of 25% shall apply to the gross quantity of earth work and variation in the quantity of individual classifications of soil will not be subject to this limit where any variation can take place.
 - (d) For items against which the quantity given in the Bills of Quantities is "if or as required", there shall be no increase/decrease of rates whatever be the quantity finally executed.
 - (e) Variation in the quantity of items individually costing upto 1% of the total contract value, shall be payable at the rates stated in the Contract. Notwithstanding the magnitude of variation upto 2% of the original Contract Value for each item.



- (f) In case the variation in individual items or the group of items as stipulated above, is more than 25% on plus side, the rate for the varied quantity beyond 25% shall be negotiated between the Engineer and the Contractor and mutually agreed rates arrived at before actual execution of the extra quantity.
- (g) In case Engineer introduces an item for which the Contract does not contain any rates or prices applicable to the varied Works, the rate of such items shall be derived, wherever possible, from rate for similar items available in the Bill of Quantities of the accepted Tender. In case this is not possible, the rate may be:
 - i) Cost of Materials at current market price, as actually utilised in the final finished Permanent Works, including a reasonable percentage for wastage and transportation.
 - ii) Cost of enabling works if any (unless provided for separately) worked out on the above basis but with less stringent quality. Specifications minus salvage value of serviceable material released after completion of work and cost of material released as scrap.
 - iii) Cost of labour actually used at the site of work at rates under Payment of Minimum Wages Act for the area of work for each category of worker, further enhanced by a percentage of 10% of the aforesaid rates to account for labour not directly utilised at Site and other ancillary and incidental expenses on labour.
 - iv) Hire charges for Plant & Machinery, scaffolding, shuttering, forms, etc., required to be used at the site of the work. The tools used by the various trades shall not be counted as Plant & Machinery for this purpose.
 - v) An amount of 20% of items (i), (ii), (iii) and (iv) above to allow for Contractor's overheads, profits and corporate taxes. This percentage shall also apply to estimated cost of Materials supplied free to the Contractor.



- vi) In all cases where extra items of work are involved, for which there are no rates in the accepted Bill of Quantities the Contractor shall give a notice to the Engineer, of at least 7 days before the need for their execution arises.
- (h) In the event of disagreement in respect of items (f) and (g) above, the Engineer shall fix such rates of price as are, in his opinion appropriate and shall notify the Contractor accordingly, with a copy to the Employer. Until such time as rates or prices are agreed or fixed, the Engineer shall determine provisional rates or prices to enable on account payments to the Contractor. Alternatively, in the event of disagreement, the Contractor shall have no claim to execute extra quantities/new items and the Engineer shall be free to get such additional quantities beyond 25% new items executed through any other agency. However, if the Engineer or the Employer so directs the Contractor shall be bound to carry out any such additional quantities beyond the limits stated above original quantities and or new items and the disagreement or the difference regarding rates to be paid for the same shall be settled in the manner laid down under the conditions for the settlement of dispute.



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12.6Payment in Applicable Currencies

If the Contract provides for payment of the Contract Price in more than one currency, and an adjustment is agreed or fixed as stated above, the amount payable in each of the applicable currencies shall be specified when the adjustment is agreed or fixed. In specifying the amount in each currency, the Contractor and the Engineer (or, failing agreement, the Engineer) shall take account of the actual or expected currency proportions of the Cost of the varied work, without being bound by the proportions of various currencies specified for payment of the Contract Price.

13. TERMINATION OF THE CONTRACT

13.1 Notice to Contractor

If the Contractor fails to carry out any of his obligations, or if the Contractor is not executing the Works in accordance with the Contract, the Engineer may give notice to the Contractor requiring him to make good such failure and remedy the same within such time as the Employer / Engineer may deem to be reasonable.

13.2 Termination of Contract due to Contractor's Default

13.2.1 Leading Conditions to Termination of Contract

The Employer shall be entitled to terminate the Contract if the Contractor or any one of its constituents.

- (a) fails to comply with a notice under Sub clause 13.1
- (b) abandons or repudiates the Contract
- (c) without reasonable excuse acceptable to the Engineer, fails to commence the Works in accordance with the Contract



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(d)	sub contracts the whole of the Works or
	assigns the Contract without approval of the Employer
(e)	becomes bankrupt or insolvent or goes into
	liquidation except voluntary liquidation for the purpose of amalgamation or reconstruction
(f)	persistently disregards instructions of the
	Engineer or contravenes any provisions of the
	Contract, or
(g)	fails to adhere to the agreed programme of
	work by margin of 10% of the stipulated
	period or 21 days, whichever is earlier, or fails
	to complete the Works or parts of the Works
	within the stipulated or extended period of
	completion, or is unlikely to complete the
	whole Work or part thereof within time
	because of poor record of progress; or
(h)	fails to remove materials from the Site, or pull
	down and replace work, after receiving notice
	from the Engineer to the effect that the said
	materials or Works have been condemned or
	rejected, or
(i)	fails to take steps to employ competent and/or additional staff and labour, or
(j)	fails to afford the Engineer or his
	representative proper facilities for inspecting
	the Works or any part thereof, or
(k)	indulges in corrupt or fraudulent practices as
	explained in Clause 4.33
	any one of these events or circumstances, the
13.2.2 Em	ployer may upon giving 14 days notice to the

Contractor



	Contractor, terminate the Contract and expel the Contractor from the Site. However, in case of subparagraph (e) or (k), the Employer may by notice of 7 days terminate the Contract immediately.
13.2.3	For the purpose of sub para (c) above, this clause, reasonable excuse shall be one, which in the opinion of the Engineer has resulted from, Any Circumstance which -is beyond the employer's or contractor's control and -made the failure unavoidable and it is evidenced by the Contractor to the satisfaction of the Engineer that the failure was remedied without unreasonable delay once that obstacle was out of the way.
13.2.4	In case of sub para(g), the Engineer at its sole discretion may terminate only part of the contract also by taking out some part of the total scope of work and may complete or arrange for any other entity through the process of open/limited/single tender or by calling quotations, to do so at the risk and cost of the contractor.
13.2.5	The Employer's decision to terminate the Contract shall not prejudice any other rights of the Employer under the Contract.
13.2.6	On termination of contract due to contractor's default the performance security shall be forfeited by encashing the bank guarantee and the balance work shall be got done independently without risk and cost of the failed contractor. The failed contractor shall be debarred from participating in the tender for executing the balance work. If the failed contractor is a JV/consortium or a partnership firm, then every



	member/partner of such JV or partnership firm shall be debarred from participating in the tender for the balance work either in his/her individual capacity or as a partner of any other JV/partnership firm.
13.2.7	The Engineer shall not make a claim under the Performance Security except for amounts to which the CSML is entitled under the contract (Not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of
	 i) Failure by the contractor to extend the validity of the Performance Security as described herein above, in which event the Engineer may claim the full amount of the Performance Security. ii) Failure by the contractor to pay CSML any amount due, either as agreed by the contractor or determined under any or the Clauses/Conditions of the agreement, within 30 days of the service of notice to this effect by Engineer. iii) The contractor being determined or rescinded under provision of the GCC the Performance Security shall be forfeited in full and shall be absolutely at the disposal of the CSML
13.2.8 Valuation at the date of Termination	The Engineer shall, as soon as possible after termination under Sub-Clause 13.2.1, determine and advise the Contractor of the value of the Construction and/or Manufacture Documents, Plant, Materials, Contractor's Equipment and works and all sums then due to the Contractor as at the date of termination.



13.2.9 Payment after Termination	After termination under Sub-Clause 13.2.1, the Employer shall not be liable to make any further payments to the Contractor until the costs of design, manufacture, execution, completion and remedying of any defects, damages for delay in completion (if any), and all other costs incurred by the Employer, have been established.
	The Employer shall be entitled to recover from the Contractor the extra costs, if any, of completing the Works after allowing for any sum due to the Contractor under Sub-Clause 13.2.8. If there are no such extra costs, the Employer shall pay any balance to the Contractor.
13.2.10Non-Exercise of Power not to Constitute Waiver	Provided always that in case any of the powers conferred upon the Employer by Sub-clause 13.1 and Sub-clause 13.2.1 above, shall have become exercisable, and the same may not have been exercised, the non-exercise thereof shall not constitute waiver of any of the conditions thereof.
13.3 Default of Employer	
13.3.1Notice by Contractor	In the event of the Employer:
	(a) failing to pay the Contractor, without reasonable cause, the amount due under any certificate of the Engineer within 56 days after the expiry of the time stated in Sub-Clause 11.5 within which payment has to be made, subject



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t	o any deduction that the Employer is entitled
t	o make under the Contract or,

(b) becoming bankrupt or, being a company, going into liquidation, other than for the purpose of a scheme of reconstruction or amalgamation, then the Contractor may give notice requiring the Employer to remedy the default within 28 days after receipt of the notice. If the Employer fails to remedy the default or fails to propose steps reasonably acceptable to the Contractor to do so and in that case, the Contractor may terminate the Contract after issue of 14 days' notice to the Employer with a copy to the Engineer. In this case, the Contractor shall be compensated as per Sub clause 13.3.4

The Engineers decision on the amount payable on this account shall be final and binding.

13.3.2 Contractor's Entitlement to Suspend the Work

The Contractor may, if the Employer fails to pay the Contractor the amount due under any certificate of the Engineer within 56 days after the expiry of the time stated in Sub-Clause 11.6, within which payment is to be made, subject to any deduction that the Employer is entitled to make under the Contract, after giving 28 days' prior notice to the Employer, with a copy to the Engineer, suspend work or reduce the rate of work.

If the Contractor suspends work or reduces the rate of work in accordance with the provisions of this Sub-Clause and thereby suffers delay or incurs costs



	the Engineer shall, after due consultation with the
	Employer and the Contractor, determine:
	a) any extension of time to which the Contractor
	is entitled under sub- clause-8.4, and
	b) the amount of such costs, which shall be added
	to the Contract Price, and shall notify the
	Contractor accordingly, with a copy to the
	Employer.
	After termination under Sub-13.3.1, the Contractor
13.3.3 Cessation of Work	shall:
by Contractor	Situit
by contractor	
	(a) cease all further work, except for such work as
	may be necessary and instructed by the
	Engineer for the purpose of making safe or
	protecting those parts of the Works already
	executed, and any Work required to leave the
	Site in a clean and safe condition,
	(b) hand over all Construction and/or
	Manufacture Documents, Plant, and Materials
	for which the Contractor has received
	payment,
	(c) hand over those parts of other Works executed
	by the Contractor up to the date of termination,
	and
	(d) remove all Contractor's Equipment which is on
	the Site and repatriate all his staff and labour
	from the Site.
	Any such termination shall be without prejudice to
	any other right of the Contractor under the Contract.
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13.3.4 Payment	on
Termination	

After termination under Sub-Clause 13.3.1 the Employer shall return the Performance security, and shall pay the Contractor an amount calculated and certified in accordance with the following conditions:.

- (a) The value of approved materials actually brought to the site and reasonably required to execute the works during next three months, as per approved programme, and
- (b) Value of work completed up to date by the contractor at rates specified in the Contract, after taking into account any deductions, retentions, set off.

The payment as above shall be full compensation for termination under this clause and the Contractor has no claim for damages or other entitlements whether under the contract or otherwise.

13.3.5

In case termination/foreclosure of the Contract under whatsoever circumstances, any remaining tools, plants, equipments and surplus materials of Employer with contractor will be returned to the Employer in good condition at Employer's depot at Contractor's cost. In case of the failure of the contractor to do so, the Employer will be entitled to recover their cost from the contractor from the amount becoming due to the contractor or from any other money due in any other contracts. The decision of the Engineer of the amount to be recovered will be final decision and full credit at rates initially charged



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to the contractor shall be allowed for such materials. Similarly the Employer shall be entitled to recover the cost of the unreturned material, plant equipment and tools from the contractor where such material have been supplied free of cost and plant, equipment and tools free of cost or on lease basis to the contractor as stipulated in the Conditions of Contract.



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14. RISK AND RESPONSIBILITY

14.1 Indemnity

The Contractor shall indemnify and hold harmless the Employer, the Engineer, the Designated Contractors, representatives and employees from and against all actions, sits, proceedings, claims, damages, losses, expenses and demands of every nature and description, by reasons of any act or omissions of the Contractor, his representative or his employees in the execution of the Works, including professional services provided by the Contractor or in the guarding the same.

These indemnification obligations shall include but not be limited to claims, damages, losses, damage proceedings, charges and expenses which are attributable to:

- (a) sickness, or disease, or death of, or injury to any person; and
- (b) loss of, or damage to, or destruction of any property (other than the Works) including consequential loss of use; and
- (c) loss, damage or costs arising from the carriage of Plant, Rolling Stock and Materials and/or ownership or chartering of marine vessels by the Contractor, or any sub-contractor of any tier.

The Contractor shall also indemnify and save harmless the Employer from and against all claims and proceedings on account of infringements of patents rights, design, trademark name etc as detailed out in clause 5.8.

All sums payable by way of compensation or damages under these conditions shall be considered reasonable compensation payable to the Employer, without reference to the actual loss or damage sustained, and whether or not any damage shall have been sustained. The decision of the Engineer as to compensation claimed shall be final and binding.



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14.2 Contractor's Care of the Works

The Contractor shall take full responsibility for the care of the Works, or any part thereof, including full responsibility for the care of any work being manufactured, or stored off-Site for inclusion in the Works, or in the course of transportation to the Site, and for the care of Contractor's Equipment, Temporary Works, Plant, Rolling Stock, and any other Material, whatsoever, on the Site or delivered to or placed on the Site in connection with, or for the purpose of the Works.

The Contractor shall take this responsibility from the Commencement Date until the date of issue of the Taking Over Certificate, when responsibility shall pass to the Employer. If the Engineer issues a Taking Over Certificate for any Section or part of the Works, the Contractor shall cease to be responsible for the care of that Section or part from the date of issue of such Taking Over Certificate when responsibility shall pass to the Employer.

The Contractor shall take responsibility for the care of any outstanding work which is required to be completed prior to the expiry of the Contract Period, until the Engineer confirms in writing that such outstanding work has been completed.

If any loss or damage happens to the Works, any other property or person, arising from any cause other than the Employer's risks listed in Sub-Clause 14.3, during the period for which the Contractor is responsible, the Contractor shall rectify such loss or damage, at his cost, so that the Works conform with the Contract or at the option of the Employer, will pay or allow to the Employer the cost of rectifying such loss or damage. Notwithstanding such loss or damage, the Contractor shall proceed with the execution of works in all respects in accordance with the contract and the Engineer's instructions. The Contractor shall also be liable for any loss or damage to the Works caused by any operations carried out by the Contractor after the date of issue of the Taking Over Certificate.



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14.3 Employer's Risk

The Employer's risks of loss or damage to physical property in India and of death and personal injury occurring in India in consequence of the performance of obligations under the Contract are:

- (a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- (b) rebellion, revolution, insurrection, or military or usurped power, or civil war, within India
- (c) riot, commotion or disorder by persons unless solely restricted to or caused by employees of Contractor or of subcontractors currently or formerly engaged in the Works
- (d) Ionising radiations, or contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radioactive toxic explosive, or other hazardous properties of any explosive nuclear assembly or nuclear component of such an assembly, except to the extent to which the Contractor may be responsible for the use of any radioactive material,
- (e) pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds, and
- (f) use or occupation by the Employer of any part of the Works, except as may be specified in the Contract.



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14.4 Consequences of Employer's Risk

If an Employer's risk results in loss or damage, the Contractor shall promptly notify the Engineer and shall rectify this loss or damage to the extent required by the Engineer.

If the Contractor suffers delay and/or incurs cost from rectifying this loss or damage, the Contractor shall give notice to the Engineer and shall be entitled to claim:

- (a) extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4, and
- (b) Amount of such cost, which may be included in the Contract Price at the discretion of the Engineer.

14.5 Contractor's Risk

The Contractor's risks are all risks other than the Employer's risks given in sub clause 14.3



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14.6 Limitation of Liability

Except as provided otherwise in these Conditions, neither party shall be liable to the other party for loss of use of any Works, loss of profit, loss of any Contract or any other indirect or consequential loss or damage which may be suffered by the other party in connection with the Contract. The total liability of the Contractor to the Employer under the Contract shall not exceed the Contract Price. Except that this Sub-Clause shall not limit the liability of the Contractor:

- (a) under Sub-Clauses 4.18, 4.19, 5.7, 8.6, and Clauses 7.10 and 7.11
- (b) under any other provisions of the Contract which expressly impose a greater liability,
- (c) in cases of fraud, wilful misconduct or illegal or unlawful acts, or
- (d) in cases of acts or omissions of the Contractor which are contrary to the most elementary rules of diligence which a conscientious Contractor would have followed in similar circumstances.



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15. INSURANCE

15.1 Professional Indemnity Insurance

The Contractor shall effect and maintain professional indemnity insurance, preferably in the name of CSML, for the amount in Indian Rupees stipulated in Contract data in respect of any design of the Works to be carried out by, or on behalf of the Contractor. This insurance, which shall ensure the Contractor's liability by reason of professional negligence and errors in the design of the works, shall be valid from the date of commencement of Works, until 7 years after the date of issue of Performance Certificate.

The Engineer will not issue Final Payment Certificate until the Contractor has produced evidence that coverage of the professional indemnity insurance has been provided for the aforesaid period.



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15.2 Insurance for Works and Contractor's Equipment

The Contractor shall insure the Plant, Materials and Works in the joint names of the Employer, the Contractor and Sub-contractors (wherever applicable) against all loss or damage. This insurance shall cover loss or damage from any cause other than the Employer's risks listed in Sub-Clause 14.3 sub paragraphs (a), (b), (d) and (e). Such insurance shall be for a limit of not less than the full replacement cost (including profit) and shall also cover the costs of demolition and removal of debris. Such insurance shall be in such a manner that the Employer and the Contractor are covered from the commencement date until the date of issue of the Taking Over Certificate for the whole of Works. The Contractor shall extend such insurance to provide cover until the date of issue of the Performance Certificate, for loss or damage for which the Contractor is liable arising from a cause occurring prior to the issue of the Taking Over Certificate, and for loss or damage occasioned by the Contractor or Sub-contractors in the course of any other operations (including Clauses 7.10, 7.11 and 10).

The Contractor shall insure the Contractor's Equipment against all risks in the joint names of the Employer, the Contractor and Sub-contractors, (wherever applicable) against all loss or damage. This insurance shall cover loss or damage from any cause other than the Employer's risks listed in Sub-Clause 14.3 sub-paragraphs (a), (b), (d) and (e). Such insurance shall be for a limit of not less than the full replacement value (including delivery to Site). Such insurance shall be in such a manner that each item of equipment is insured while it is being transported to the Site and throughout the period it is on or near the Site.



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15.3 Insurance against injury to Persons and Damage to Property

The Contractor shall insure against liability to third parties in the joint names of the Employer, the Contractor and Sub-contractors, (wherever applicable) for any loss, damage, death or bodily injury which may occur to any physical property (except things insured under Sub-Clause 15.2) or to any person (except persons insured under Sub-Clause 15.4), which may arise out of the performance of the Contract and occurring beforethe issue of the Performance Certificate. Such insurance shall be at least for the amount specified in the Appendix to Form of Tender / SCC.

15.4 Insurance for Workers

The Contractor shall effect and maintain insurance against losses and claims arising from the death or injury to any person employed by the Contractor or any Sub-contractor (wherever applicable) in such a manner that the Employer and the Engineer are indemnified under the policy of insurance. For Sub-contractor's employees (wherever applicable), such insurance may be effected by the Sub-contractor, but the Contractor shall be responsible for compliance with this Clause.



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15.5 General Requirements for Insurances

The Contractor shall, within the respective periods stated in the Appendix to Form of Tender /SCC (calculated from the Commencement Date), submit to the Employer:

- a) evidence that the insurances described in this Clause have been effected, with an Indian Insurance Company, and
- b) copies of the policies for the insurances described in Sub-Clause 15.2, 15.3 and 15.4.

When each premium has been paid, the contractor shall submit copy of receipts to the employer. The contractor shall also, when providing such evidence, policies and receipts to the employer, notify the engineer of so doing.

The contractor shall effect all insurances for which he is responsible with insurers and in terms approved by the employer. Each policy insuring against loss or damage shall provide for payments to be made in the currencies required to rectify such loss or damage. Payments received from insurers shall be used for the rectification of such loss or damage.

The contractor (and, if appropriate, the employer) shall comply with the conditions stipulated in each of the insurance policies. The contractor shall make no material alteration to the terms of any insurance without the prior approval of the employer. If an insurer makes (or purports to make) any such alteration, the contractor shall notify the employer immediately.

If the contractor fails to effect and keep in force any of the insurances required under the contract, or fails to provide satisfactory evidence, policies and receipts in accordance with this sub-clause, the employer may, without prejudice to any other right or remedy, effect insurance for the coverage relevant to such default, and pay the premiums due. In such cases the premium paid by the employer plus overheads (equal to 50% of the premium paid) shall be recoverable from the contractor by the employer, and may be deducted by the employer from any



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monies due, or to become due, to the contractor or recover the same as debt due from the contractor. The contractor shall not dispute the amount of premium paid by the employer or the overhead charges thereon.

Nothing in this clause limits the obligations, liabilities or responsibilities of the contractor or the employer, under the other terms of the contract or otherwise. Any amount not insured or not recovered from the insurers shall be borne by the contractor.

The Contractor shall submit to the Engineer, the details of all claims made with the insurer and claims accepted by the insurer or any other details as required by the Engineer on monthly basis.



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16. FORCE MAJEURE

16.1 Definition of Force Majeure

In this Clause, "force majeure " means an event beyond the control of the Employer and the Contractor, which makes it impossible or illegal for a party to

- a) act of God;
- b) war, hostilities (whether war be declared or not), invasion, act of foreign enemies, mobilisation, requisition, or embargo;
- c) rebellion, revolution, insurrection, or military or usurped power, or civil war;
- contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosive, or other hazardous properties of any explosive nuclear assembly or nuclear component of such an assembly;
- e) riot, commotion or disorder, unless solely restricted to employees of the Contractor or of his Sub-contractors currently or formerly engaged on the Works.

If a party considers that it may be affected by Force Majeure, the party shall promptly notify the other party and Engineer of such Force Majeure within 21 days of such occurrence. If neither party issues any notice regarding the event within 21 days of its occurrence, the said event shall be deemed not to have occurred and the Contract shall continue to have effect as such.

16.2 Effect of Force Majeure Event

Neither the Employer nor the Contractor shall be considered in default or in contractual breach to the extent that performance of obligations is prevented by a Force Majeure event which arises after the date of Notice to Proceed Upon the occurrence of such Force Majeure, the affected party shall endeavour to continue to perform its obligations as far as reasonably practicable.



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16.3 Contractor's Responsibility

If affected by such Force Majeure, the Contractor shall promptly notify the Engineer of any proposals for overcoming the consequences of the Force Majeure, including any reasonable alternative means for performance, but shall not carry out these proposals without the consent of the Engineer.

16.4 Employer's Responsibility

If affected by such Force Majeure, the Employer shall promptly notify the Engineer and the Contractor of any proposals for overcoming the consequences of the Force Majeure.

16.5 Payment to Contractor

If the Works shall suffer loss or damage due to such Force Majeure, the Contractor shall be entitled to have included, in an Interim Payment Certificate, the Cost of work executed in accordance with the Contract.

16.6 Resumption of Work

The obligations under the Contract shall be resumed as soon as practicable after the event has come to an end or ceased to exist.

In case of doubt or dispute, whether a particular occurrence should be considered an "event" as defined under this clause, the decision of the Engineer shall be final and binding.

Works that have already been measured shall be paid for by the Employer even if the same is subsequently destroyed or damaged as a result of the event. The cost of rebuilding or replacing any work that has been measured shall be borne by the Employer.



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16.7 Optional Termination, Payment and Release

Irrespective of any extension of time, if a Force Majeure occurs and it's effect continues for a period of 6 months, after notice has been given under Sub-Clause 16.1, either party may give to the other party a notice of termination of the Contract which shall take effect in 28 days after the notice is given. Unless at the end of 28 days period the effect of the Force Majeure has ceased, the Contract shall terminate upon that date. Otherwise, the Contract shall remain in effect.

The Contractor shall be paid fully for the work done under the Contract, but not for any defective work or work done which has been destroyed or damaged before its measurement. The Employer shall have the option to take over any Plant and Materials lying at site, at rates provided for in the Contract, failing that, as per rates, which are determined to be fair and

reasonable by the Engineer.

16.8 Release from Performance under the Law

If under the law of the Contract the Employer and the Contractor are released from further performance, the sum payable by the Employer to the Contractor shall be the same as would have been payable under Sub-Clause 16.7, if the Contract had been terminated under that Sub-Clause.



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17. CLAIMS, DISPUTES, CONCILIATION AND ARBITRATION

17.1 Procedure for Claims

If the Contractor intends to claim any additional payment under any clause of these Conditions or otherwise, the Contractor shall give notice to the Engineer as soon as possible and in any event within 28 days of the start of the event giving rise to the claim.

The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at any other location acceptable to the Engineer. Without admitting the Employer's liability, the Engineer shall, on receipt of such notice, inspect such records and may instruct the Contractor to keep further contemporary records. The Contractor shall permit the Engineer to inspect all such records, and shall (if instructed) submit copies to the Engineer.

Within 28 days of such notice, or such other time as may be agreed by the Engineer, the Contractor shall send to the Engineer an account, giving detailed particulars of the amount and basis of the claim. Where the event giving rise to the claim has a continuing effect, such amount shall be considered as interim. The Contractor shall then, at such intervals as the Engineer may reasonably require, send further interim accounts giving the accumulated amount of the claim and any further particulars. Where interim accounts are sent to the Engineer, the Contractor shall send a final account within 28 days of the end of the effects resulting from the event.

If the Contractor fails to comply with this Sub-Clause, he shall not be entitled to claim any additional payment.



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17.2 Payment for Claims

The Contractor shall be entitled to have included in any Interim Payment Certificate such amount for any claim as the Engineer considers due, after taking approval from the Employer. If the particulars supplied are insufficient to substantiate the whole of the claim, the Contractor shall be entitled to payment for such part of the claim as has been substantiated.

17.3 No legal action Till Dispute Settlement Procedure is Exhausted

Any and all Disputes shall be settled in accordance with the provisions of Clause 17. No action at law concerning or arising out of any Dispute shall be commenced unless and until all applicable Dispute resolution procedures set out in Clause 17 shall have been finally exhausted in relation to that Dispute or any Dispute out of which that Dispute shall have arisen with which it may be or may have been connected.

17.4 Notice of Dispute

For the purpose of Sub-Clause 17.5, a Dispute shall be deemed to arise when one party serves on the other party a notice in writing (hereinafter called a "Notice of Dispute") stating the nature of the Dispute provided that no such notice shall be served later than 28 days after the date of issue of Performance Certificate by the Engineer.

17.5 Two Stages for Dispute Resolution

Disputes shall be settled through two stages:

- (a) Conciliation procedures as established by "The Arbitration and Conciliation Act-1996" (as amended from time to time) and in accordance with this Clause. In the event this procedure fails to resolve the Dispute then;
- (b) Arbitration procedures undertaken as provided by "The Arbitration and Conciliation Act -1996" (as amended from time to time) and in accordance with this Clause



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17.6 Conciliation

Within 60 days of receipt of Notice of Dispute, either party shall refer the matter in dispute to conciliation.

Conciliation proceedings shall be initiated within 30 days of one party inviting the other in writing to Conciliation. Conciliation shall commence when the other party accepts in writing this invitation. If the invitation is not accepted then Conciliation shall not take place. If the party initiating conciliation does not receive a reply within 30 days from the date on which he sends the invitation he may elect to treat this as a rejection of the invitation to conciliate and inform the other party accordingly.

The Conciliation shall be undertaken by one Conciliator selected from a panel of Conciliators maintained by the Employer. The Conciliator shall assist the parties to reach an amicable settlement in an independent and impartial manner



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17.7 Conciliation Procedure

The Employer shall maintain a panel of Conciliators, who shall be from serving or retired engineers of GovernmentDepartments, or of Public Sector Undertakings. Out of this panel, a list of three Conciliators shall be sent to the Contractor who shall choose one of them to act as Conciliator and conduct conciliation proceedings in accordance with "The Arbitration and Conciliation Act, 1996", of India.

There will be no objection if conciliator so nominated is a serving employee of CSML who would be Deputy level officer and above.

The Employer and the Contractor shall in good faith co-operate with the Conciliator and, in particular, shall endeavour to comply with requests by the Conciliator to submit written materials, provide evidence and attend meetings. Each party may, on his own initiative or at the invitation of the Conciliator, submit to the Conciliator suggestions for the settlement of the dispute.

When it appears to the Conciliator that there exist elements of a settlement which may be acceptable to the parties, he shall formulate the terms of a possible settlement and submit them to the parties for their observations. After receiving the observations of the parties, the Conciliator may reformulate the terms of a possible settlement in the light of such observations.

If the parties reach agreement on a settlement of the dispute, they may draw up and sign a written settlement agreement. If requested by the parties, the Conciliator may draw up, or assist the parties in drawing up, the settlement agreement.

When the parties sign the settlement agreement, it shall be final and binding on the parties and persons claiming under them respectively. The Conciliator shall authenticate the settlement agreement and furnish a copy thereof to each of the parties.

As far as possible, the conciliation proceedings should be completed within 60 days of the receipt of notice by the Conciliator.

Section VI. General Conditions (GC)

RFP FOR "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"



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The parties shall not initiate, during the conciliation proceedings, any arbitral or judicial proceedings in respect of a dispute that is the subject matter of the conciliation proceedings.



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17.8 Termination of Conciliation Proceedings

The conciliation proceedings shall be terminated:

- (a) by the signing of the settlement agreement by the parties on the date of agreement; or
- (b) by written declaration of the conciliator, after consultation with the parties, to the effect further efforts at conciliation are no longer justified, on the date of declaration; or
- (c) by a written declaration of the parties to the conciliator to the effect that the conciliation proceedings are terminated, on the date of declaration; or
- (d) by a written declaration of a party to the other party and the conciliator, if appointed, to the effect that the conciliation proceedings are terminated, on the date of declaration.

Upon termination of the conciliation proceedings, the conciliator shall fix the costs of the conciliation and give written notice thereof to the parties. The costs shall be borne equally by the parties unless settlement agreement provides for a different apportionment. All other expenses incurred by a party shall be borne by that party.



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17.9 Arbitration

If the efforts to resolve all or any of the disputes through conciliation fails, then such disputes or differences, whatsoever arising between the parties, arising out of touching or relating to construction/ manufacture, measuring operation or effect of the Contract or the breach thereof shall be referred to Arbitration in accordance with the following provisions:

- Matters to be arbitrated upon shall be referred to a sole Arbitrator if the total value of the claim is upto Rs.5 million and to a panel of three Arbitrators if total value of claims is more than Rs.5 million. The Employer shall provide a panel of three arbitrators which may also include CSML officers for the claims upto Rs.5 million and a panel of five Arbitrators which may also include CSML officers for claims of more than Rs.5 million. The Contractor shall have to choose the sole Arbitrator from the panel of three and/or one Arbitrator from the panel of five in case three Arbitrators are to be appointed. The Employer shall also choose one Arbitrator from this panel of five and the two so chosen will choose the third arbitrator from the panel only. The Arbitrator(s) shall be appointed within a period of 30 days from the date of receipt of written notice/ demand of appointment of Arbitrator from either party. Neither party shall be limited in the proceedings before such arbitrator(s) to the evidence nor arguments put before the Engineer for the purpose of obtaining his decision. No decision given by the Engineer in accordance with the foregoing provisions shall disqualify him from being called as a witness and giving evidence before the arbitrator(s) on any matter, whatsoever, relevant to dispute or difference referred to arbitrator/s. The arbitration proceedings shall be held in only. The language of proceedings that of documents and communication shall be English.
- (b) The Employer at the time of offering the panel of Arbitrator(s) to be appointed as Arbitrator shall also supply the information with regard to the qualifications of the said Arbitrator nominated in the panel along with their professional experience, phone nos. and addresses to the contractor.



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(c) The award of the sole Arbitrator or the award by majority of three Arbitrators as the case may be shall be binding on all parties.

17.10 Interest on Arbitration Award

Where the arbitral award is for the payment of money, no interest shall be payable on whole or any part of the money for any period, till the date on which the award is made.

17.11 Cost of Arbitration

The cost of arbitration shall be borne by the respective parties. The cost shall, inter alia, include the fees of the Arbitrator(s) as per rates fixed by the Employer from time to time.

17.12 **Jurisdiction of Courts**

Where recourse to a Court is to be made in respect of any matter, the court at Kochi shall have the exclusive jurisdiction to try all disputes between the parties.

17.13 Suspension of Work on Account of Arbitration

The reference to Conciliation/Arbitration shall proceed not withstanding that the Works shall not then be or be alleged to be complete, provided always that the obligations of the Employer, Engineer and the Contractor shall not be altered by reasons of arbitration being conducted during the progress of the Works. Neither party shall be entitled to suspend the work or part of the work to which the dispute relates on account of arbitration and payments to the Contractor shall continue to be made in terms of the Contract.



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18. SERVICE OF NOTICES

18.1 Notice to Contractor

- a) All notices to the Contractor, shall be served by post or telex or telefax or by hand to the Contractor or his authorized representatives. In case of notices delivered by post, they will be deemed to have been delivered after 7 days of dispatch.
- b) The Contractor shall, on award of the Contract, furnish to the Engineer, the name, designation, address and telephone, telex and telefax numbers and e-mail address of his representative referred to in Clause 4.3.

18.2 Notice to Employer and Engineer

All notices to the Employer or Engineer shall be served by post or telex or telefax, or by delivering by hand to the address nominated for the purpose.

18.3 Change of Address

Parties to the Contract may change the nominated address by Employer with a notice to all concerned.



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Appendix-Dispute Resolution A General Conditions of Dispute Board Agreement

		Appendix-Dispute Resolution
	A General Conditions of Dispute Board Agreement	
1.	Definitions	Each "Dispute Board Agreement" is a tripartite agreement
		by and between:
		(a) the "Employer";
		(b) the "Contractor"; and
		(c) the "Member" who is defined in the Dispute Board
		Agreement as being:
		(i)the sole member of the "DB" and, where this is the case,
		all references to the "Other Members" do not apply, or
		(ii)one of the three persons who are jointly called the "DB"
		(or "Dispute Board") and, where this is the case, the other
		two persons are called the "Other Members."
		The Employer and the Contractor have entered (or intend
		to enter) into a contract, which is called the "Contract" and
		is defined in the Dispute Board Agreement, which
		incorporates this Appendix. In the Dispute Board
		Agreement, words and expressions which are not otherwise
		defined shall have the meanings assigned to them in the
		Contract.
2.	General	
	Provisions	Unless otherwise stated in the Dispute Board Agreement, it
		shall take effect on the latest of the following dates:
		a) the Commencement Date defined in the Contract,
		b) when the Employer, the Contractor and the Member
		have each signed the Dispute Board Agreement, or
		c) when the Employer, the Contractor and each of the
		Other Members (if any) have respectively each signed
		a dispute board agreement.



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		This employment of the Member is a personal appointment. At any time, the Member may give not less than 70 days' notice of resignation to the Employer and to the Contractor, and the Dispute Agreement shall terminate upon the expiry of this period.
3.	Warranties	The Member warrants and agrees that he/she is and shall be impartial and independent of the Employer, the Contractor and the Engineer. The Member shall promptly disclose, to each of them and to the Other Members (if any), any fact or circumstance which might appear inconsistent with his/her warranty and agreement of impartiality and independence. When appointing the Member, the Employer and the Contractor relied upon the Member's representations that he/she is: a) experienced in the work which the Contractor is to carry out under the Contract, b) experienced in the interpretation of contract documentation, and c) fluent in the language for communications defined in the Contract.
4.	General Obligations of the	The Member shall:
	Member	(a) have no interest financial or otherwise in the Employer, the Contractor or Engineer, nor any financial interest in the Contract except for payment



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under the Dispute	Board Agreement;
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- (b) not previously have been employed as a consultant or otherwise by the Employer, the Contractor or the Engineer, except in such circumstances as were disclosed in writing to the Employer and the Contractor before they signed the Dispute Board Agreement;
- (c) have disclosed in writing to the Employer, the Contractor and the Other Members (if any), before entering into the Dispute Board Agreement and to his/her best knowledge and recollection, any professional or personal relationships with any director, officer or employee of the Employer, the Contractor or the Engineer, and any previous involvement in the overall project of which the Contract forms part
- (d) not, for the duration of the Dispute Board Agreement, be employed as a consultant or otherwise by the Employer, the Contractor or the Engineer, except as may be agreed in writing by the Employer, the Contractor and the Other Members (if any);
- (e) comply with the annexed procedural rules and with Sub-Clause 20.4 of the Conditions of Contract;
- (f) not give advice to the Employer, the Contractor, the Employer's Personnel or the Contractor's Personnel concerning the conduct of the Contract, other than in accordance with the annexed procedural rules;
- (g) not while a Member enter into discussions or make any agreement with the Employer, the Contractor or the Engineer regarding employment by any of them, whether as a consultant or otherwise, after ceasing to act under the Dispute Board Agreement;



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		(h) ensure his/her availability for all site visits and
		hearings as are necessary;
		(i) become conversant with the Contract and with the
		progress of the Works (and of any other parts of the
		project of which the Contract forms part) by studying
		all documents received which shall be maintained in a
		current working file;
		(j) treat the details of the Contract and all the DB's
		activities and hearings as private and confidential, and
		not publish or disclose them without the prior written
		consent of the Employer, the Contractor and the Other
		Members (if any); and
		(k) be available to give advice and opinions, on any matter
		relevant to the Contract when requested by both the
		Employer and the Contractor, subject to the
		agreement of the Other Members (if any).
5.	General	The Employer, the Contractor, the Employer's Personnel
	Obligations	and the Contractor's Personnel shall not request advice
	of the	from or consultation with the Member regarding the
	Employer	Contract, otherwise than in the normal course of the DB's
	and the	activities under the Contract and the Dispute Board
	Contractor	Agreement. The Employer and the Contractor shall be
		responsible for compliance with this provision, by the
		Employer's Personnel and the Contractor's Personnel
		respectively.
		The Employer and the Contractor undertake to each other
		and to the Member that the Member shall not, except as
		otherwise agreed in writing by the Employer, the
		Contractor, the Member and the Other Members (if any):

a)

be appointed as an arbitrator in any arbitration



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	under the Contract; b) be called as a witness to give evidence concerning any dispute before arbitrator(s) appointed for any
	arbitration under the Contract; or c) be liable for any claims for anything done or omitted in the discharge or purported discharge of the Member's functions, unless the act or omission is shown to have been in bad faith. The Employer and the Contractor hereby jointly and severally indemnify and hold the Member harmless against and from claims from which he is relieved from liability
	under the preceding paragraph. Whenever the Employer or the Contractor refers a dispute to the DB under Sub-Clause 20.4 of the Conditions of Contract, which will require the Member to make a site visit and attend a hearing, the Employer or the Contractor shall provide appropriate security for a sum equivalent to the reasonable expenses to be incurred by the Member. No account shall be taken of any other payments due or paid to the Member.
6. Payment	The Member shall be paid as follows, in the currency named in the Dispute Board Agreement: (a) a retainer fee per calendar month, which shall be considered as payment in full for: i) being available on 7 days' notice for all site visits and hearings;
	ii) becoming and remaining conversant with all project developments and maintaining relevant files; iii) all office and overhead expenses including



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- secretarial services, photocopying and office supplies incurred in connection with his duties; and
- iv) all services performed hereunder except those referred to in sub-paragraphs (b) and (c) of this Clause.

The retainer fee shall be paid with effect from the last day of the calendar month in which the Dispute Board Agreement becomes effective; until the last day of the calendar month in which the Taking-Over Certificate is issued for the whole of the Works.

With effect from the first day of the calendar month following the month in which the Taking-Over Certificate is issued for the whole of the Works, the retainer fee shall be reduced by one third. This reduced fee shall be paid until the first day of the calendar month in which the Member resigns or the Dispute Board Agreement is otherwise terminated.

- (b) a daily fee which shall be considered as payment in full for:
 - i) each day or part of a day up to a maximum of two days' travel time in each direction for the journey between the Member's home and the site, or another location of a meeting with the Other Members (if any);
 - ii) each working day on Site visits, hearings or preparing decisions; and
 - iii) each day spent reading submissions in preparation for a hearing.
- (c) all reasonable expenses including necessary travel expenses (air fare in less than first class, hotel and



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subsistence and other direct travel expenses) incurred in connection with the Member's duties, as well as the cost of telephone calls, courier charges, faxes and telexes: a receipt shall be required for each item in excess of five percent of the daily fee referred to in sub-paragraph (b) of this Clause;

(d) any taxes properly levied in the Country on payments made to the Member (unless a national or permanent resident of the Country) under this Clause 6.

The retainer and daily fees shall be as specified in the Dispute Board Agreement. Unless it specifies otherwise, these fees shall remain fixed for the first 18 calendar months, and shall thereafter be adjusted by agreement between the Employer, the Contractor and the Member, at each anniversary of the date on which the Dispute Board Agreement became effective.

If the parties fail to agree on the retainer fee or the daily fee, the appointing entity or official named in the Contract Data shall determine the amount of the fees to be used.

The Member shall submit invoices for payment of the monthly retainer and air fares quarterly in advance. Invoices for other expenses and for daily fees shall be submitted following the conclusion of a site visit or hearing. All invoices shall be accompanied by a brief description of activities performed during the relevant period and shall be addressed to the Contractor.

The Contractor shall pay each of the Member's invoices in full within 56 calendar days after receiving each invoice and shall apply to the Employer (in the



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	Statements under the Contract) for reimbursement of one-half of the amounts of these invoices. The Employer shall then pay the Contractor in accordance with the Contract
	If the Contractor fails to pay to the Member the amount to which he/she is entitled under the Dispute Board Agreement, the Employer shall pay the amount due to the Member and any other amount which may be required to maintain the operation of the DB; and without prejudice to the Employer's rights or remedies. In addition to all other rights arising from this default, the Employer shall be entitled to reimbursement of all sums paid in excess of one-half of these payments, plus all costs of recovering these sums and financing charges calculated at the rate specified in Sub-Clause 14.8 of the Conditions of Contract.
	If the Member does not receive payment of the amount due within 70 days after submitting a valid invoice, the Member may
	i) suspend his/her services (without notice) until the payment is received, and/or
	ii) resign his/her appointment by giving notice under Clause 7.
7. Termination	At any time:
	i) the Employer and the Contractor may jointly terminate the Dispute Board Agreement by giving 42 days' notice to the Member; or



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ii) the Member may resign as provided for in Clause 2.

If the Member fails to comply with the Dispute Board Agreement, the Employer and the Contractor may, without prejudice to their other rights, terminate it by notice to the Member. The notice shall take effect when received by the Member.

If the Employer or the Contractor fails to comply with the Dispute Board Agreement, the Member may, without prejudice to his other rights, terminate it by notice to the Employer and the Contractor. The notice shall take effect when received by them both.

Any such notice, resignation and termination shall be final and binding on the Employer, the Contractor and the Member. However, a notice by the Employer or the Contractor, but not by both, shall be of no effect.

8. Default of the Member

If the Member fails to comply with any of his obligations under Clause 4 (a) - (d) above, he shall not be entitled to any fees or expenses hereunder and shall, without prejudice to their other rights, reimburse each of the Employer and the Contractor for any fees and expenses received by the Member and the Other Members (if any), for proceedings or decisions (if any) of the DB which are rendered void or ineffective by the said failure to comply.

If the Member fails to comply with any of his obligations under Clause 4 (e) - (k) above, he shall not be entitled to any fees or expenses hereunder from the date and to the extent of the non-compliance and shall, without prejudice to their other rights, reimburse each of the Employer and the Contractor for any fees and expenses already received by the Member, for proceedings or decisions (if any) of the DB



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	which are rendered void or ineffective by the said failure to comply.
9. Disputes	Any dispute or claim arising out of or in connection with this Dispute Board Agreement, or the breach, termination or invalidity thereof, shall be finally settled by institutional arbitration. If no other arbitration institute is agreed, the arbitration shall be conducted under the Rules of Arbitration of the International Chamber of Commerce by one arbitrator appointed in accordance with these Rules of Arbitration.

PROCEDURAL RULES

Unless otherwise agreed by the Employer and the Contractor, the DB shall visit the site at intervals of not more than 140 days, including times of critical construction events, at the request of either the Employer or the Contractor. Unless otherwise agreed by the Employer, the Contractor and the DB, the period between consecutive visits shall not be less than 70 days, except as required to convene a hearing as described below.

The timing of and agenda for each site visit shall be as agreed jointly by the DB, the Employer and the Contractor, or in the absence of agreement, shall be decided by the DB. The purpose of site visits is to enable the DB to become and remain acquainted with the progress of the Works and of any actual or potential problems or claims, and, as far as reasonable, to endeavour to prevent potential problems or claims from becoming disputes.

Site visits shall be attended by the Employer, the Contractor and the Engineer and shall be coordinated by the Employer in co-operation with the Contractor. The Employer shall ensure the provision of appropriate conference facilities and secretarial and copying services. At the conclusion of each site visit and before leaving the site, the DB shall prepare a report on its activities during the visit and shall send copies to the Employer and the Contractor.

The Employer and the Contractor shall furnish to the DB one copy of all documents which the DB may request, including Contract documents, progress reports, variation instructions, certificates and other documents pertinent to the performance of the Contract. All communications between the DB and the Employer or the Contractor shall be copied to the other Party. If the DB comprises three persons, the Employer and the Contractor shall send copies of these requested documents and these communications to each of these persons.



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If any dispute is referred to the DB in accordance with Sub-Clause 20.4 of the Conditions of Contract, the DB shall proceed in accordance with Sub-Clause 20.4 and these Rules. Subject to the time allowed to give notice of a decision and other relevant factors, the DB shall:

- (a) act fairly and impartially as between the Employer and the Contractor, giving each of them a reasonable opportunity of putting his case and responding to the other's case, and
- (b) adopt procedures suitable to the dispute, avoiding unnecessary delay or expense.

The DB may conduct a hearing on the dispute, in which event it will decide on the date and place for the hearing and may request that written documentation and arguments from the Employer and the Contractor be presented to it prior to or at the hearing.

Except as otherwise agreed in writing by the Employer and the Contractor, the DB shall have power to adopt an inquisitorial procedure, to refuse admission to hearings or audience at hearings to any persons other than representatives of the Employer, the Contractor and the Engineer, and to proceed in the absence of any party who the DB is satisfied received notice of the hearing; but shall have discretion to decide whether and to what extent this power may be exercised.

The Employer and the Contractor empower the DB, among other things, to:

- (a) establish the procedure to be applied in deciding a dispute,
- (b) decide upon the DB's own jurisdiction, and as to the scope of any dispute referred to it,
- (c) conduct any hearing as it thinks fit, not being bound by any rules or procedures other than those contained in the Contract and these Rules,
- (d) take the initiative in ascertaining the facts and matters required for a decision,
- (e) make use of its own specialist knowledge, if any,
- (f) decide upon the payment of financing charges in accordance with the Contract,
- (g) decide upon any provisional relief such as interim or conservatory measures, and
- (h) open up, review and revise any certificate, decision, determination, instruction, opinion or valuation of the Engineer, relevant to the dispute.

The DB shall not express any opinions during any hearing concerning the merits of any arguments advanced by the Parties. Thereafter, the DB shall make and give its decision in accordance with Sub-Clause 20.4, or as otherwise agreed by the Employer and the Contractor in writing. If the DB comprises three persons:

Section VI. General Conditions (GC)

RFP FOR "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"



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- (a) it shall convene in private after a hearing, in order to have discussions and prepare its decision;
- (b) it shall endeavour to reach a unanimous decision: if this proves impossible the applicable decision shall be made by a majority of the Members, who may require the minority Member to prepare a written report for submission to the Employer and the Contractor; and
- (c) if a Member fails to attend a meeting or hearing, or to fulfil any required function, the other two Members may nevertheless proceed to make a decision, unless:
 - (i) either the Employer or the Contractor does not agree that they do so, or
 - (ii) the absent Member is the chairman and he/she instructs the other Members not to make a decision.



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DISPUTES RESOLUTION BOARD'S RULES AND PROCEDURES

Dispute Resolution during Execution of the Contract

- 1. Except for providing the services required hereunder, the Board Members shall not give any advice to either party concerning conduct of the Works. The Board Members:
 - (a) shall have no financial interest in any party to the Contract, or a financial interest in the Contract, except for payment for services on the Board;
 - (b) shall have had no previous employment by, or financial ties to, any party to the Contract, except for fee-based consulting services on other projects, all of which must be disclosed in writing to both parties prior to appointment to the Board;
 - (c) shall have disclosed in writing to both parties prior to appointment to the Board any and all recent or close professional or personal relationships with any director, officer, or employee of any party to the Contract, and any and all prior involvement in the project to which the Contract relates;
 - (d) shall not, while a Board Member, be employed whether as a consultant or otherwise by either party to the Contract, except as a Board Member, without the prior consent of the parties and the other Board Members;
 - (e) shall not, while a Board Member, engage in discussion or make any agreement with any party to the Contract, regarding employment whether as a consultant or otherwise either after the Contract is completed or after service as a Board Member is completed;
 - (f) shall be and remain impartial and independent of the parties and shall disclose in writing to the Employer, the Contractor, and one another any fact or circumstance that might be such as to cause either the Employer or the Contractor to question the continued existence of the impartiality and independence required of Board Members; and
 - (g) shall be fluent in the language of the Contract.
- 2. Except for its participation in the Board's activities as provided in the Contract and in this Agreement none of the Employer, the Contractor, shall solicit advice or consultation from the Board or the Board Members on matters dealing with the conduct of the Works.
- 3. The Contractor shall



- (a) Furnish to each Board Member one copy of all documents that the Board may request including Contract documents, progress reports, variation orders, and other documents pertinent to the performance of the Contract.
- (b) In cooperation with the Employer, coordinate the Site visits of the Board, including conference facilities, and secretarial and copying services.
- 4. The Board shall begin its activities following the signing of a Board Member's Declaration of Acceptance by all three Board Members, and it shall terminate these activities as set forth below:
 - (a) The Board shall terminate its regular activities when either (i) the Defects Liability Period referred to in Sub-Clause 41.2 (or, if there are more than one, the Defects Liability Period expiring last) has expired, or (ii) the Employer has expelled the Contractor from the Site pursuant to Sub-Clause 59.1, and when, in either case, the Board has communicated to the parties its Recommendations on all disputes previously referred to it.
 - (b) Once the Board has terminated its regular activities as provided by the previous paragraph, the Board shall remain available to process any dispute referred to it by either party. In case of such a referral, Board Members shall receive payments as provided in paragraphs 7 (a) (ii), (iii), and (iv).
- 5. Board Members shall not assign or subcontract any of their work under these Rules and Procedures. However, the Board may in its discretion decide to seek independent expert advice on a particular specialized issue to assist in reaching a Recommendation, and the cost of obtaining any such expert opinion(s) shall be shared equally by the Employer and the Contractor in accordance with the procedure specified in paragraph 7 (d) below.
- 6. The Board Members are independent Contractors and not employees or agents of either the Employer or the Contractor.
- 7. Payments to the Board Members for their services shall be governed by the following provisions:
 - (a) Each Board Member will receive payments as follows:
 - (i) A retainer fee per calendar month equivalent to two times the daily fee established from time to time for arbitrators under the Administrative and Financial Regulations of the International Centre for Settlement of Investment Disputes (the ICSID



Arbitrator's Daily Fee), or such other retainer as the Employer and Contractor may agree in writing. This retainer shall be considered as payment in full for:

- (A) Being available, on seven days' notice, for all hearings, Site visits, and other meetings of the Board.
- (B) Being conversant with all project developments and maintaining relevant files.
- (c) All office and overhead expenses such as secretarial services, photocopying, and office supplies (but not including telephone calls, faxes, and telexes) incurred in connection with the duties as a Board Member.
- (D) All services performed hereunder except those performed during the days referred to in paragraph (ii) below.
- (ii) A daily fee equivalent to the ICSID Arbitrator's Daily Fee, or such other daily fee as the Employer and Contractor may agree in writing. This daily fee shall only be payable in respect of the following days and shall be considered as payment in full for:
 - (A) Each day up to a maximum of two days of travel time in each direction for the journey between the Board Member's home and the Site or other location of a Board meeting.
 - (B) Each day on Site or other locations of a Board meeting.
- (iii)Expenses. In addition to the above, all reasonable and necessary travel expenses (including less than first-class air fare, subsistence, and other direct travel expenses) as well as the cost of telephone calls, faxes, and telexes incurred in connection with the duties as Board Member shall be reimbursed against invoices. Receipts for all expenses in excess of [AMOUNT AND CURRENCY] shall be provided.
- (iv)Reimbursement of any taxes that may be levied in the country of the Site on payments made to the Board Member (other than a national or permanent resident of the country of the Site) pursuant to this paragraph 8
- (b) Escalation. The retainer and fees shall remain fixed for the period of each Board Member's term.



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- (c) Payments to the Board Members shall be shared equally by the Employer and the Contractor. The Contractor shall pay Members' invoices within 30 calendar days after receipt of such invoices and shall invoice the Employer (through the monthly statements to be submitted in accordance with Clause 49 of the General Conditions of Contract) for one-half of the amounts of such invoices. The Employer shall pay such Contractor's invoices within the time period specified in the Construction Contract for other payments to the Contractor by the Employer.
- (d) Failure of either the Employer or the Contractor to make payment in accordance with this Agreement shall constitute an event of default under the Contract, entitling the non-defaulting party to take the measures set forth in the Contract.
- (e) Notwithstanding such event of default, and without waiver of rights therefrom, in the event that either the Employer or the Contractor fails to make payment in accordance with these Rules and Procedures, the other party may pay whatever amount may be required to finance the operation of the Board. The party making such payments, in addition to all other rights arising from such default, shall be entitled to reimbursement of all sums paid in excess of one-half of the amount required to maintain operation of the Board, plus all costs of obtaining such sums.

8. Board Site Visits

- (a) The Board shall visit the Site and meet with representatives of the Employer and the Contractor at regular intervals, at times of critical construction events, at the written request of either party, and in any case not less than two times in any period of 12 months. The timing of Site visits shall be as agreed among the Employer, the Contractor, and the Board, but failing agreement shall be fixed by the Board.
- (b) Site visits shall include an informal discussion of the status of the Works and Services, an inspection of the Works and Services, and the review of any Requests for Recommendation made in accordance with paragraph 10 below. Site visits shall be attended by personnel from the Employer and the Contractor.
- (c) At the conclusion of each Site visit, the Board shall prepare a report covering its activities during the visit and shall send copies to the parties.
- 9. Procedure for Dispute Referral to the Board:



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- (a) If either party objects to any action or inaction of the other party, the objecting party may file a written Notice of Dispute to the other party stating that it is given pursuant to Clause 6 and stating clearly and in detail the basis of the dispute.
- (b) The party receiving the Notice of Dispute will consider it and respond in writing within 14 days after receipt.
- (c) This response shall be final and conclusive on the subject, unless a written appeal to the response is filed with the responding party within 7 days after receiving the response. Both parties are encouraged to pursue the matter further to attempt to amicably settle the dispute.
- (d) When it appears that the dispute cannot be resolved without the assistance of the Board, or if the party receiving the Notice of Dispute fails to provide a written response within 14 days after receipt of such Notice, either party may refer the dispute to the Board by written Request for Recommendation to the Board. The Request shall be addressed to the Chairman of the Board, with copies to the other Board Members, the other party and it shall state that it is made pursuant to Clause 6.
- (e) The Request for Recommendation shall state clearly and in full detail the specific issues of the dispute to be considered by the Board.
- (f) When a dispute is referred to the Board, and the Board is satisfied that the dispute requires the Board's assistance, the Board shall decide when to conduct a hearing on the dispute. The Board may request that written documentation and arguments from both parties be submitted to each Board Member before the hearing begins. The parties shall submit insofar as possible agreed statements of the relevant facts.
- (g) During the hearing, the Contractor and the Employer shall each have ample opportunity to be heard and to offer evidence. The Board's Recommendations for resolution of the dispute will be given in writing to the Employer and the Contractor as soon as possible, and in any event not more than 56 days after receipt by the Chairman of the Board of the written Request for Recommendation.

10. Conduct of Hearings

(a) Normally hearings will be conducted at the Site, but any location that would be more convenient and still provide all required facilities and access to necessary documentation



may be utilized by the Board. Private sessions of the Board may be held at any cost-effective location convenient to the Board.

- (b) The Employer and the Contractor shall be given the opportunity to have representatives at all hearings.
- (c) During the hearings, no Board Member shall express any opinion concerning the merit of the respective arguments of the parties.
- (d) After the hearings are concluded, the Board shall meet privately to formulate its Recommendations. All Board deliberation shall be conducted in private, with all Members' individual views kept strictly confidential. The Board's Recommendations, together with an explanation of its reasoning, shall be submitted in writing to both parties. The Recommendations shall be based on the pertinent Contract provisions, applicable laws and regulations, and the facts and circumstances involved in the dispute.
- (e) The Board shall make every effort to reach a unanimous Recommendation. If this proves impossible, the majority shall decide, and the dissenting Member may prepare a written minority report for submission to both parties.
- 11. In all procedural matters, including the furnishing of written documents and arguments relating to disputes, Site visits, and conduct of hearings, the Board shall have full and final authority. If a unanimous decision on any such matter proves impossible, the majority shall decide.
- 12. After having been selected and, where necessary, approved, each Board Member shall sign two copies of the following declaration and make one copy available each to the Employer and to the Contractor:



BOARD MEMBER'S DECLARATION OF ACCEPTANCE

DUARD MEMBER S DECLARATION OF ACCEPTANCE
WHEREAS
(a)
(b) Clause 21.3 of the General Conditions of Contract provides for the establishment and operation of a Disputes Resolution Board (the Board);
(c) the undersigned has been selected (and where required, approved) to serve as a Board Member on said Board;
NOW THEREFORE, the undersigned Board Member hereby declares as follows:
 I accept the selection as a Board Member and agree to serve on the Board and to be bound by the provisions of Clause 21.3 of the General Conditions of Contract and the Disputes Ressolution Board's Rules and Procedures attached to the Conditions of Contract.
2. With respect to paragraph 1 of said Disputes Resolution Board's Rules and Procedures, leader
(a) that I have no financial interest of the kind referred to in subparagraph (a);
(b) that I have had no previous employment nor financial ties of the kind referred to in subparagraph (b); and
(c) that I have made to both parties any disclosures that may be required by subparagraphs (b) and (c).
BOARD MEMBER
[print name of Board Member]
Date



Section VII. Special Conditions (SC)

Contractor

Procuring Entity / Employer



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Section VII. Special Conditions (SC)

The following Special Conditions shall supplement the GC. Whenever there is a conflict, the provisions herein shall prevail over those in the GC.

Part A - Contract Data

Conditions	Sub-Clause	Data
"Employer's name and address	1.1.2.8	Chief Executive Officer, Cochin Smart Mission Limited (CSML) 4th Floor, JLN Stadium Metro Station, Kaloor, Kochi - 682 017, India Electronic mail address: procurement@csml.co.in
Engineer's name and address	1.1.2.9, 1.1.2.10 & 3.1	Engineer shall be designated and notified by the Employer
Commencement date	1.1.3.1 8.1	The Commencement date shall be the date specified by the Employer in the Letter of Acceptance. If no date is specified in the Letter of Acceptance the commencement date shall be the date specified in an instruction to the Contractor, in writing to that effect from the Engineer (Notice to Proceed).
Intended Completion Date	1.1.3.11,	For whole works at the end of 7 months (including monsoon period) for Supply, installation, integration, testing, trial run & Commissioning of works and all services included under Contract For section of works, refer to "Table 1 : Summary of Sections" below



Conditions	Sub-Clause	Data
Time for Completion	1.1.3.11 8.2	For whole works 7 months (including monsoon period) Supply, installation, integration, testing, trial run & Commissioning of works and services included under Contract For section of works, refer to "Table 1 : Summary of Sections" below
Sections	1.1.6.6	For section of works, refer to "Table 1: Summary of Sections" below
Time for the Parties entering into a Contract Agreement	1.1.1.5,	14 days of receipt of Notification of Award / Letter of Acceptance (LOA) The agreement shall be signed with Cochin Smart Mission Limited [CSML]. In case of JV /Consortium, It is mandatory to register the JV/Consortium under relevant Act after award of Letter of Acceptance but before signing of Contract Agreement within 28 days of issuance of Letter of Acceptance. Failure to register the JV/Consortium in stipulated period may lead to forfeiting of bid security. The equity sharing as declared at the time of bidding shall be maintained while registering the JV/Consortium before Contract execution. The minimum equities of all partners shall be maintained throughout the currency of contract. The Agreement shall be signed by both the firm individually and by the representatives of JV/Consortium.
Department/ Authority/ Implementing Agency name	1.1.2.8	Cochin Smart Mission Limited (CSML)
Language	1.3	English
Language for communications	1.3	English



Conditions	Sub-Clause	Data
Law	1.3 & 6.4	laws of Government of India and State of Kerala
Care & Supply of Construction and /or manufacture documents	1.5	Add the following at the end of sub clause 5.6: The Contractor shall maintain standard Site Order Books at the Site at all times during the execution of the Works for the use of the Employer and the Engineer. All site instructions issued by the Employer/Engineer to the Contractor shall be recorded in duplicate in the Site Order Book and shall be signed by the issuer and countersigned by the Contractor. After compliance with the instruction the Contractor shall record the same in the Site Order Book duly signed and countersigned by the Employer/Engineer. Acceptance of any part of the Works executed by the Contractor shall be subject to verification with respect to compliance of respective instructions of the Employer/Engineer through the Site Order Book. The Employer/Engineer shall retain the original copy of the site orders, while the Contractor shall retain the duplicate ones
Communications	1.7, 18.1, 18.2, 18.3	Electronic transmission systems E-mail, fax etc. Electronic mail address: procurement@csml.co.in Hard copy shall be delivered by hand or mail or courier to following address Cochin Smart Mission Limited (CSML) 4th Floor, JLN Stadium Metro Station, Kaloor, Kochi - 682 017, India
Compliance with Laws- Co- ordination with	1.10 & 4.4	Add at the end of sub clause 4.4:



Conditions	Sub-Clause	Data
other Government departments		Co-ordination with other Government departments shall be in Scope of the Contractor.
Engineer's Duties and Authority	3.2	The Engineer shall obtain the specific approval of the Employer before taking action under the following sub clauses of these conditions: 1) Agreeing or determining an extension of time and/or additional cost in accordance with sub clause 8.4 . 2) Approving a proposal for variation submitted by the Contractor in accordance with sub clause 12.2 3) Variations resulting in an increase of the Accepted Contract Amount/ quantity in accordance with sub clause 12.5 . However the delegation of power of the Employer prevails.
Performance Security Amount	4.2	The performance security will be in the form of "a Unconditional Bank Guarantee" issued by a bank located in the country of the Purchaser (Scheduled Bank in India with Jurisdiction in Kochi) Bank Guarantee submitted against the performance guarantee, shall be unconditional and encashable / invokable at Kochi when presented in specified Branch Office. The amount(s) of performance security shall be 3 percent of the Accepted Contract Amount and in the currency of the country i.e. INR (Indian Rupees). As per Government orders, Additional Performance Guarantee will be required for the Percentage Rate Contracts, if the quoted amount falls below 10% of Estimated PAC. For Items Rate Contracts Additional



Conditions	Sub-Clause	Data
		Performance Guarantee is required if the rate quoted by the bidder for an item of work is 10% below the Estimated cost of the respective item.
		i. For Percentage Rate Contracts - if the quoted amount of lowest bidder (L1) is X% below Estimated PAC (where X lies above 10%), the Additional Performance Guarantee amount shall be (X-10) % of Estimated PAC.
		ii. For Item Rate Contracts – If the rate quoted by the bidder for an item of work is X% below estimate cost (where X lies above 10%), the Additional Performance Guarantee for that item of work is equal to (X-10)% of the estimated amount for that item of work. The total of Additional Performance Guarantee for the whole work is the total of individual Additional Performace Guarantee for each item of work calculated as above.
		However, the AUTHORITY further reserves the right to decide on the requirement of the Additional Performance Guarantee as above and/or the rate at which it has to be executed.
		The performance security and additional performance security of a JVA/Consortium shall be in the name of the JVA/Consortium that submits the bid.
		The Contractor shall ensure that the Performance Security including additional performance security amount is valid and enforceable until the Contractor has executed and completed the Works and remedied any defects.



Conditions	Sub-Clause	Data
		Performance Security including additional performance security will be refunded normally after expiry of the contract period including the 5 years 0&M period plus 3 months (Total 6 years). However, duly considering the performance of the Contractor, the Employer may return the additional Performance Security pertaining to the execution part to the Contractor after receipt of a copy of the work completion (excluding defects liability) certificate from
		the Engineer with due recommendation for release of additional Performance Security. Additional Performance Security of the O&M part if any shall be returned only after the completion of the O&M part of the corresponding year.
Facilities and coordination with others	4.4	Add the following at the end of the Clause: In case any operation connected with the works necessitates diversion, obstruction or closure of any road, railway, waterway or any other right of way, the approval of the Engineer-in-charge or the Engineer's Representative or the respective the Employer, shall be obtained well in advance by the Contractor. In case the Contractor's operations obstruct access to adjacent properties, the Contractor shall be responsible to provide reasonable temporary access to the affected parties. In case the Contractor fails to provide adequate temporary facilities, this shall be deemed to be an uncorrected Defect under the terms of Clause 10 and the Employer shall have the right to engage a third party to correct the Defect and the cost of such correction will be deducted from the Contract Price.
Sub Contractors	4.5.2	For shifting electrical utilities, the contractor shall engage personnel with A –Class license from KSEB/Inspectorate.



Conditions	Sub-Clause	Data
Right of way and facilities	4.12	As per "Table2: Summary of Site Possession Dates" detailed below.
Program	4.13	The Contractor shall submit for approval a Program for the Works within 28 days from the date of the Letter of Acceptance.
		The period between Program updates is 60 days.
		The amount to be withheld for late submission of an updated Program is INR 1, 00,000 .
		The Contractor shall require to work in a sequential but integrated manner to ensure highest standard of infrastructure delivery in this area. It shall also be responsible for all activities during the complete contract period of 7 months. At no point during the Contract Period, the Contractor would be absolve of its responsibilities as defined in the Contract document
		The Contractor shall submit his proposed construction program in sufficient detail so as to demonstrate the order in which he proposes to carry out the Works (including each stage of survey, drawings, procurement, manufacture, pre-delivery inspection and testing, delivery to Site, construction, erection, testing and commissioning); all major events and activities in the production of Construction Documents; the periods for the drawings reviews and approvals and for any other submissions, approvals and consents specified in the Employer's Technical Requirements; the sequence of all tests specified in the Contract; etc.
		The Contractor shall also submit the micro planning program showing detail of area-wise and street wise execution of all activities in time bound manner. The execution program shall not be considered unless street wise plan has been prepared. Any street should not be left



Conditions	Sub-Clause	Data
		dug up for a period more than period proposed and approved by Authority. Any breach of this condition shall constitute a major violation of contract as convenience of citizens is the major reason for bundling all the components together.
		The Contractor should pay particular attention to demonstrating how his proposed program for supply of major items of plant and equipment to be incorporated into the Permanent Works is to be managed to satisfy the requirements of the Contract, including the time required for survey, preparation of working drawings, placing of confirmed orders, manufacturing, pre-delivery inspections and tests, delivery to the Site, storage, installation, etc.
		Such execution program shall be developed on a commercially available project management software (such as Primavera, MS Project or equivalent) showing level-3 activities, together with bar charts and CPM diagrams which clearly illustrate the critical path, and the resources required to be provided by the Bidder to achieve the desired results.
		The Contractor's attention is drawn to the requirements set out in this contract, and the Contractor is required to clearly demonstrate how he proposes to meet the Milestone Targets that have been established to ensure that pro-rata progress is maintained on all subcomponents of the Works throughout the execution period.
Progress Reports	4.14	Penalty: (If the contractor fails to comply with the following)
		Non submission of monthly report shall invite penalty of INR 20,000/- for each such occurrence. The monthly report shall cover all relevant details defined in the contract



Conditions	Sub-Clause	Data
Contractor's Equipment	4.15.1	Add the following at the end of this sub clause: The Contractor shall deploy at least the minimum numbers of the "key equipment" named in the "Schedule-Key Equipment" as referred to in the Section I qualification criteria and other equipment necessary as directed by the Engineer based on the work requirement.
Safety of Works	4.16	 (a) Add at the end of sub clause 4.16: (b) The Contractor has to: (c) Prepare a detailed Safety Plan, to be implemented under supervision of Safety Officer of the Contractor, within 28 (twenty eight) days of receiving of Letter of Acceptance to be approved by the Engineer-in-Charge. (d) Non compliance of safety norms shall invite penalty of INR 10000/- per occurrence or notice by the engineer.
Electricity Water and Gas	4.18	Charges for power connection, water and gas, if required, during execution and for trial run and commissioning of the facility if any, shall be borne by contractor
Tools, Plants and Equipment Supplied by the Employer	4.19	Not Applicable



Conditions	Sub-Clause	Data
Labour laws	6.4	Penalty: (if the contractor fails to comply with the following) In case any Child labour is employed at site in violation with the laws of the state and India, the employer will levy an additional penalty of Rs 25,000 per incidence and if such instance occurs more than once the contract may be terminated, to be decided at the sole discretion of the Employer.
Working hours for project execution	6.5	No work shall be carried out on the Site on locally recognized days of rest, or outside the normal working hours stated in the Contract Data / Special Conditions of Contract (SCC)., unless (i) otherwise stated in the Contract; (ii) the Engineer gives consent; or (iii the work is unavoidable, or necessary for the protection of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Engineer in Charge. If and when the Contractor considers it necessary to carry out work at night or on public holidays so as to meet the Time for Completion and requests the EIC's consent thereto, the EIC shall not unreasonably withhold such consent. This Sub clause shall not apply to any work which is



Conditions	Sub-Clause	Data
		customarily carried out by rotary or double shifts.
Provision of Efficient and Competent Staff	6.9	The Contractor shall deploy at least the minimum numbers of the "key personnel" named in the "scope of work 2.10.1.10" as referred to in the Section III qualification criteria or other personnel approved by the Engineer-in-Charge.
Quality Control & Inspection	7.4	Add at the end of sub clause 7.4 Quality Control would be monitored and checked by / CSML Quality Checking Matrix is as follows Contractor ↓ PMC (Project management consultants) ↓ CSML(Authority)
		The Contractor shall provide his proposed Quality Assurance and Quality Control (QAQC) Plan which describes the type, frequency and procedure of tests to be done on sites; type, frequency and procedure of tests to be done at manufacturers' locations outside the sites; all parameters to be measured in these tests; permissible limits of such parameters; details of laboratories to be



Conditions	Sub-Clause	Data
		established at sites; details of testing equipment & machines and their calibration schedules; details of the Bidder's internal systems for assuring quality control at the manufacturers' outside the sites; details of qualifications and experience of the Quality Control professionals to be deployed for the entire project; and the systems of Quality Audit to be instituted for systematic and professional management as well as adherence with the highest standards of quality of all construction works. The Contractor shall provide separate descriptions of its proposed QA/QC plan during the construction phase. The Bidder shall also provide copies of the company's standard rules and regulations regarding quality assurance and quality control procedures for works in general and works of a similar nature.
Inspection	7.4	Add the following at the end of the Clause:
		The Contractor shall submit the detailed drawings, if any, to the Engineer for approval.
		For Equipment:
		The Contractor shall inform the Engineer-in-charge about the likely dates of testing and dispatching of the material. The Contractor shall notify the Engineer-in-charge for inspection and testing, at least seven (7) days prior to packing and shipping and shall supply the manufacturer's test results and quality control certificates.
		The inspection and test categories shall be applied prior to delivery of the equipment, of various categories as indicated in the technical specifications for each type of equipment.



Conditions	Sub-Clause	Data
		Category A: The drawing has to be approved by the Employer/ Employer's Representative before manufacture and testing. The material has to be inspected by the Engineer-in-charge or his authorized representative after approval at the manufacturer's premise before packing and dispatching. The contractor shall provide the necessary equipment and facilities to visit factory by engineer or its representatives for tests and the cost thereof shall be borne by the Contractor.
		Category B: The drawings of the equipment have to be submitted and to be approved by the Engineer-in-charge prior to manufacture. The material has to be tested by the manufacturer and the manufacturer's test certificates are to be submitted and approved by the Engineer-in-charge before dispatching of the equipment.
		Notwithstanding the above, the Engineer-in-charge, after examination of the test certificates, reserves the right to instruct the Contractor for retesting, if required, in the presence of the Contractor's representative.
		Category C: The material may be manufactured as per relevant standards and delivered to the site.
		For material / equipment under Category 'A' and 'B' the Engineer-in-charge will provide an authorization for packing and shipping after inspection.
		Material like smart energy meter, composite lighting poles or any other equipment which needed approval shall be approved by Kerala State Electricity Board (KSEB) prior to procurement. All smart energy meters shall be tested & calibrated at KSEB approved testing laboratory.



Conditions	Sub-Clause	Data
Maximum amount of liquidated damages for delay	8.5	At the rate of 0.5% of the Accepted Contract Amount per week, subject to a maximum of 10% of the Accepted Contract Amount. The enforcement of Liquidated Damages shall be on delay on the total project progress and shall commence from the expiry of the stipulated completion period.
Defects Liability Period and O&M Period	10.1	DLP period is for 2 year and 0&M period is for 5 years and both starting from the date of issuing of Initial Hand Over and Completion Certificate.
Adjust in Contract Price	11.1.3	Price adjustment: NOT applicable
1. Advance Income Tax and Work Contract Tax		As per the prevailing Tax Rules of the Government of India and Government of Kerala
2. Royalty for Materials Used		As per the prevailing rates established under Kerala Minor Minerals Concession Rules and any provision amended from time to time and in force.
3. As per Construction Worker's Welfare Cess act 1996.(if applicable)		1 % of the bill amount will be deducted towards the building and other construction workers welfare Cess.



Conditions	Sub-Clause	Data
Advances	11.2	Mobilization Advance (Interest Free) 10 % of the Accepted Contract Amount (excluding provisional sum) payable in the currencies and proportions in which the Accepted Contract Amount is payable. Advance payment shall be made in 2 equal installments against BG
		First instalment of 5% advance payment will be made after the Contractor fulfilled following conditions.
		 Mobilized Project Manager, survey and site mobilization
		Submitted to the approval of Engineer-
		proposed execution program,
		mobilization/ deployment schedule,
		 contractors key personnel, machinery, equipments required for executing the works, Procurement schedule for major materials,
		☐ Cash flow forecast statement.
		After first instalment payment has been utilized as per approved program (substantiated by relevant documents) contractor can apply for Second instalment.
		Second instalment of balance 5 % advance payment will be made after the Contractor fulfilled following conditions.
		 Deployment of personnel, machinery, equipment as per approved deployment schedule.
		 Place confirm orders for supply of major materials as per approved Procurement Schedule.



Conditions	Sub-Clause	Data
Repayment	11.2.3	Maximum 30 %.
amortization rate of advance payment		Repayment will begin when amount of work certified by the Engineer attains 20% of the Contract Price.
payment		Advance payment shall be completely repaid prior to the time when 85 percent of the Accepted Contract Amount less Provisional Sums has been certified for payment.
		If the work is delayed beyond the completion date and its extended period(s), then the interest to be charged from the Contractor on the remaining portion of the advance beyond the original completion date specified in the Contract or its extended periods, shall be the State Bank of India prime lending Rate plus 2% per annum or 10% per annum whichever is higher.
Minimum Amount of Interim Payment Certificates	11.5	2% of accepted contract value
Payment terms	11.6	As per "Table 3 : Payment Terms" below
Retention Money	11.9	5% Contractor shall have an option to convert the retention money into Bank Guarantee of equal amount, from scheduled commercial bank in India, once the deducted retention amount is more than 50% of total retention amount for the project.
Maximum total liability of the Contractor to the Employer	14.6	1.2 times Accepted Contract Amount



Conditions	Sub-Clause	Data
Insurance	15	The details of Insurance covers to be obtained by the Contractor and the Employer, including their value, terms and extent of coverage and other terms and conditions shall be as under: (A) for the Works, Plant and Materials; (B) for loss or damages to equipment; (C) for loss or damage to property (except the Works, Plant, Materials and Equipment) in connection with Contract; (D) for personal injury or death; (i) of the Contractor's employees; (ii) of other people The Sum Insured against each of these items will be as per the Laws of the state of Kerala The Contractor shall take out and maintain in effect the following insurances in the sums and deductibles shown below:
		 a. The minimum deductible for insurance of the Works and of Plant and Materials is: [Rs 50 lakh] b. The minimum cover for insurance of the Works and of Plant and Materials is: INR 1 Crore c. The minimum deductible for insurance of other property is: [Rs 2 Lakh] d. The minimum cover for insurance of other property is: Rs. 10 lakh



Conditions	Sub-Clause	Data
		e. The minimum cover for personal injury or death insurance (i) For the Contractor's employees is: Rs 5 Lakh (ii) And for other people is: Rs 10 Lakh
		f. Third Party motor vehicle liability insurance in respect of motor vehicles operated in the Government's country by the Contractor or its Personnel or any Sub-Contractors or their Personnel, with a minimum coverage of equal to Rs 10 Lakh with unlimited number of incidents.
Minimum amount of third party insurance	15.3	INR 5.00 Lakhs per occurrence with the number of occurrences unlimited.
Maximum amount of deductibles for insurance of the Employer's risks	15.4 &15.5	INR 5.00 Lakhs with the number of occurrences unlimited.
Periods for submission of insurance:	15.5	
a. evidence of insurance.		14 days
b. relevant policies		28 days
Date by which the Conciliator shall be appointed	17.7	28 days after the Commencement date



Conditions	Sub-Clause	Data
The Conciliator shall be comprised of	17.7	Single Member
List of potential Conciliators for selecting sole member	17.7	"Three"
Rules of arbitration	17.9	Arbitration procedures undertaken as provided by "The Arbitration and Conciliation Act -1996" (as amended from time to time). The number of arbitrators shall be three (3). The language of arbitration shall be English. The place of such arbitration shall be Kochi, India.

Table 1: Summary of Sections

Section Name/Description (Sub-Clause 1.1.6.6)		Time for Completion (Sub-Clause 1.1.3.11)	As per Annexure - A
Section Name	Financial progress to be competed As per Annexure- A	Period from the date of Contract agreement	Section Name
Milestone 1	i.e. Column(a)	3 months (before the end of 3 months after agreement)	Milestone 1
Milestone 2	i.e. C olumn (b)	2 months (before the end of 5 months after agreement)	Milestone 2
Milestone 3	i.e. <u>Column (c)</u>	2 months (before the end of 7 months after agreement)	Milestone 3



COCHIN SMART MISSION LIMITED

ANNEXURE-A

MILESTONE TARGETS.

SI.			Total		
No.	Particulars	Milestone-1 (a)	Milestone-2 (b)	Milestone-3 (c)	
1	Period (in months)	3	2	2	7
2	Financial progress to be achieved Compared to % of Accepted Contract amount	20% (Cumulative)	70% (Cumulative)	100% (Cumulative)	100%

Table 2: Summary of Site Possession Dates

Sl No.	Site Possession extent			Site Possession period
1	First 50%	of	Site	Within 14 days from the date of Agreement of Contract
	identification	will	be	_
	provided			
2	Next 50%	of	Site	Within 1 months from the date of Agreement of Contract
	identification	will	be	<u> </u>
	provided			

Table 3 : Payment Terms.

(A) The employer will make the payment to the following items on the following terms-(Clause 15.6 GCC)



Item Type	Sl. No	Break up of payment	Percentage of payment release
Supply & Installation	1	After Supply of material to site & Submission of third-party inspection certificates & acceptance	50%
	2	After installation as per tender conditions	25%
	3	Testing and commissioning	20%
	4	Final Handing over	5%
Operation &Maintenance		(1/4)th of corresponding year quoted amount which will be issued quarterly	



COCHIN SMART MISSION LIMITED

Section VIII. Annex to Special Conditions - Contract Forms



COCHIN SMART MISSION LIMITED

Section VIII. Annex to Special Conditions - Contract Forms

Form of Agreement, Forms of Performance Security, and Bank Guarantee for Advance Payment)

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COCHIN SMART MISSION LIMITED

NOTES ON AGREEMENT, PERFORMANCE AND ADVANCE PAYMENT SECURITIES

Samples of acceptable forms of Agreement, Performance and Advance Payment Securities are annexed. Bidders should not complete the Performance and Advance Payment Security forms while submitting the Bid. Only the successful Bidder will be required to provide Performance and Advance Payment Securities in accordance with one of the forms or in a similar form acceptable to the Employer



COCHIN SMART MISSION LIMITED

Format of Notification of Award

LETTER OF ACCEPTANCE

[Letterhead paper of the Employer]

No.: CSML/ xxxxxxxxxxxxxx xx/xx/ 2023	Date:/, 2023
To:	
[name and address of the Contractor]	
Dear Sir,	
Sub: - Letter of Acceptance (LOA) for in Enunder Smart City Mission, Kochi -Reg.	rnakulum Corporation Area
Ref: - (i)	
1.This is to notify you that your above referred Bid dated	d (Tender ID: ivalent of Rsas negotiated, corrected and
2.You are hereby requested to furnish the Performance Security @ equivalent to Rs	an Additional Performance
3.Also, it is requested to enter into a Contract with CSML, within 14 d of Acceptance (LOA) on a stamp paper of Rs/- in prescribed for	
4.Until the conclusion of Contract, this Letter of Acceptance (LOA) Contract between us.) shall constitute a binding
5.Unless separate notice to proceed is issued, the date of commencem after the date of issue of this Letter of Acceptance	ent of work shall be 15 days
6. The Letter of Acceptance is sent herewith in duplicate. You are re unconditionally and send one copy of it duly signed by the authorized days of receipt of this LOA.	
Thanking you,	
Yours faithfully,	
Attachment: Contract Agreement	



COCHIN SMART MISSION LIMITED

Format of Contract Agreement

(The value of stamp paper for the agreement which is to be executed by the successful bidder is Re.1/- for every Rs.1000/- or part thereof on the amount agreed in the contract subject to a minimum of Rs.200/- and a maximum of Rs.1 lakh.)

AGREEMENT

This agreement is entered	on this	, 2023 by a	ınd between;
---------------------------	---------	-------------	--------------

M/s Cochin Smart Mission Limited (CSML), incorporated as a company under the provisions of the Indian Companies Act, 2013 and having its registered office at No.45/965 C/GIDA Building, Chathiyath Road, Pachalam P.O, Kochi – 682012 (hereinafter referred as "CSML", which the term shall unless otherwise repugnant to the context shall mean and include all its successors and permitted assigns) represented by Chief Executive Officer, on the FIRST PART

AND M/s, wherein its lead bidder is, a company having its registered office at -----(hereinafter referred as "Contractor", which the term shall unless otherwise repugnant to the context shall mean and include all its successors and permitted assigns) represented by ----- on the SECOND PART For the purpose of this agreement, both CSML and the Contractor are collectively called Parties and individually as Party Whereas -CSML has floated a Tender for Selection of "....." vide CSML/...." dated xx-xx-2023 (Tender ID: 2023_KMRL_xxxxx_1) (hereinafter referred as "Said Tender") and the Contractor turned out to be the successful bidder in the said tender. CSML in consideration of the bid documents submitted by the Contractor has accepted the bid of the Contractor and issued the Letter of Award vide letter dated letter dated awarding the said tender to the Contractor for the execution and completion of the works as specified in the tender and remedying any defects therein (hereinafter referred as "Work") for a sum of Rs. (Rupees Only/- excl. of all taxes) (hereinafter referred as "contract price")



COCHIN SMART MISSION LIMITED

In compliance with the tender condition as well as the Letter of Award, the Parties do hereby reduced their understandings into this agreement.

NOW THIS AGREEMENT WITNESSTH HEREIN AS FOLLOWS

- 1. In this agreement, words and expressions shall have the same meaning as are respectively assigned to them in the contract documents referred to.
- 2. **Tenure:** This agreement shall be deemed to have been commenced from and be valid for a period of months.
- 3. That, several documents as mentioned herein below which forms part of this agreement shall be read mutually supplementary and explanatory to each other

 - c. Request for proposal
 - d. Minutes of pre-bid meeting & addendum
 - e. Corrigendum
 - f. Date corrigendum
- 4. That, unless otherwise expressly provided elsewhere in this agreement in the event of any conflict, discrepancy or ambiguity between them, the priority of documents shall be in the order;
 - a. This agreement
 - b. Notice to Proceed
 - c. Letter of Award/Acceptance
 - d. Employers requirement
 - e. The Complete Set of Bid Documents submitted by Contractor including Addenda (if any)
 - f. The Special Conditions of the Contract (Particular conditions)
 - g. The General Conditions of the Contract
 - h. Technical Specifications
 - i. Tender drawings
 - j. Financial Bid Proposal submitted by the contractor
 - k. The completed schedules and any other documents forming part of the contract.



COCHIN SMART MISSION LIMITED

- 5. That, in consideration of the payment to be made by CSML to the Contractor as specified hereinabove, the contractor has agreed to execute and complete the work within the tenure of this agreement in strict compliance of the terms and conditions of this agreement.
- 6. That, CSML do hereby covenants to pay the Contractor in consideration of the execution and completions of the Work, the contract price or any other sums as agreed under this agreement as may become payable under the provisions of this agreement at the time and manner as prescribed under the Schedule of this Agreement.
- 7. **Notices:** Any notices required or permitted to be given hereunder shall be given in writing and shall be delivered (a) in person, (b) by certified mail, postage prepaid, return receipt requested, (c) by facsimile, or (d) by a commercial overnight courier that guarantees next day delivery and provides a receipt, and such notices shall be addressed as follows:

In case of CSML	In case of Contractor
Cochin Smart Mission Limited (CSML) 4th	
Floor, JLN Stadium Metro Station, Kaloor,	
Kochi - 682 017, India	
E-MAIL: procurement@csml.co.in	

8. Dispute Resolution Mechanism:

a.**Arbitration:** In case of any dispute or differences, arising out of this agreement shall be settled amicably between the parties by way of mutual discussion or negotiation. If such dispute or differences could not be resolved within 30 days from the date of commencement of such discussions or negotiation, then the same shall be referred to a Sole Arbitrator (to be appointed by CSML) under the provisions of the Arbitration and Conciliation Act, 1996. Seat of Arbitration shall be Ernakulam. Language of the arbitration proceedings shall be English. Award of the Sole Arbitrator shall be final and binding upon the parties.

b.**Jurisdiction:** Subject to above mentioned arbitration clause, any dispute or differences arising out of this agreement shall fall under the exclusive jurisdiction of the courts at Ernakulam.

IN WITNESS WHEREOF the parties hereto have caused their respective Common sign and Seals to be hereunto affixed / (or have hereunto set their respective hands and seals) the day and year first above written.

Section VIII. Annex to Special Conditions – Contract Forms

RFP FOR "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"



For Cochin Smart Mission Limited	For
Authorized Signatory	Authorized Signatory
For Cochin Smart Mission Limited	For
Authorized Signatory	Authorized Signatory
Witnesses: 1.	
2.	



COCHIN SMART MISSION LIMITED

Format of Performance Security/Additional Performance Security (Performance Bank Guarantee- Unconditional) [Bank's Name, and Address of Issuing Branch or Office] **Beneficiary:** Cochin Smart Mission Limited (CSML) 4th Floor, JLN Stadium Metro Station, Kaloor, Kochi - 682 017, India Date: 2023 PERFORMANCE GUARANTEE No.: This Deed of Guarantee made this the --- day of 20XX by ----- (Name of the Bank), having its registered office at ------, and one of its branches at ----- (Address of the Branch) (hereinafter called the Guarantor) in favour of Cochin Smart Mission Limited, ----------- (hereinafter called the beneficiary). WHEREAS M/s. _____ (Name of the Contractor) having their address/ registered (Address of the Contractor's registered Office at _____ Office) (hereinafter called the "Contractor") was awarded contract for (supply / Erection / Supply & Erection / Work/others- specify the purpose) of ______ (Name of the material / equipment / work/others-specify) by Cochin Smart Mission Limited, the "Beneficiary" and WHEREAS a performance guarantee of Rs. -----/- has to be submitted by the Contractor, before undertaking the contract and WHEREAS the Contractor has requested the Guarantor for issuing a Bank Guarantee for Rs. _____ (Amount as stipulated) valid till _____ (mention here date of validity of this

guarantee amount payable to the Beneficiary, and

Guarantee which will be ----- days beyond the contract period) towards Performance



WHEREAS the Guarantor has agreed to issue su	uch Bank Guarantee to the Beneficiary as
hereunder mentioned:	
We, (Name of the Bank as	nd address of the Branch giving the Bank
Guarantee) having our registered Office at	(Address of Bank's registered
Office) hereby give this Bank Guarantee No	dated and do hereby
irrevocably undertake to pay immediately on demar	ıd, without requiring any previous notice and
without any demur, reservation, recourse, contest of	or protest and without referring to any other
sources including the Contractor and without the be	eneficiary having to substantiate its demand,
to the beneficiary a sum not exceeding Rs	(amount as stipulated) (Rupees
) (in words) on	behalf of the Contractor. Guarantor agrees
that any demand in writing made by the authorised	officials of the Beneficiary shall be conclusive
as regards the amount due and payable by the Guar	antor under this Guarantee.
We, (Name o	f the Bank) further undertake to pay without
demur the aforesaid amount in lump sum on deman	d or such part there of as the beneficiary may
demand from time to time irrespective of the fact v	hether the said contractor admits or denies
such claim or questions correctness in any court, T	ribunal or Arbitration proceedings or before
any authority. The aforesaid guarantee will remain i	n force and we shall be liable under the same
irrespective of any concession or time being granted	l by the beneficiary to the contractor and this
guarantee will remain in full force irrespective of a	ny change of terms, conditions or stipulation
or any variation in the terms of the said contract.	
We, (Name of the Bank)	further agree with the beneficiary that the
beneficiary will have the fullest liberty without our	consent and without in any manner affecting
our obligations hereunder to vary any of the terms	and conditions of the contract or to extend
the time for performance of the contract by the co	ontractor or to postpone any of the powers
exercisable by the beneficiary or to forbear or enf	orce any of the terms and conditions of the
contract and that we shall not be relieved from our	liability by reasons of any such variation or
extension or forbearance or postponement or omis	sion or by any indulgence by the beneficiary
to the contractor or by any such matter whatsoev	er which under the law relating to sureties
would, but for this provision, have resulted in reliev	ring us.



This Bank Guarantee shall be valid and binding on this Bank upto and inclusive of
(mention here the date of validity of Bank Guarantee), unless extended on
demand by the beneficiary. The Guarantee shall not be terminated or affected by liquidation or
winding up or insolvency or change in constitution of the Contractor or for any other reason. This
guarantee shall not be terminated by the guarantor under any circumstances including change in
the constitution of the Bank and our liability hereunder shall not be impaired or discharged by
any extension of time or variations or alterations made, given, conceded in the contract with or
without our knowledge or with or without consent by or between the Contractor and the
beneficiary.
NOT WITHSTANDING anything contained hereinbefore, our liability under this Guarantee is
restricted to Rs (amount as stipulated) (Rupees (in words). Our
Guarantee shall remain inforce till (90 days after the date of validity of the contract). Unless
demands or claims under this Bank Guarantee are made to us in writing on or before (date
should be one year over and above the validity period of BG), all rights of Beneficiary under this
Bank Guarantee shall be forfeited and we shall be released and discharged from all liabilities
there under.
Place:
Signature of the Bank's Authorized
Date: Signatory with Official Seal



COCHIN SMART MISSION LIMITED

Format of Advance Payment Security

(Bank Guarantee- Unconditional)

Demand Guarantee

This D	eed of Guarantee made this the day of 20XX by (Name of the Bank), having its
registe	red office at (Address of the Branch) (the
Guaran	ntor) in favour of Cochin Smart Mission Limited, (hereinafter called
the ber	neficiary).
WHER	EAS
1.	M/s (Name of the Vendor/Contractor) having their address/
	registered Office at (Address of the
	Contractor's registered Office) (hereinafter called the "Vendor/Contractor") was
	awarded contract (hereinafter referred as "Contract") for (supply / Erection / Supply &
	Erection / Work/others- specify the purpose) of (Name of
	the material / equipment / work/others- specify) by the beneficiary and
2.	In compliance with the provisions of said Contract, the beneficiary has to make an
	advance payment of Rs (Rupees only) against issuance of an advance payment
	guarantee for Rs
	vendor/contractor fails to duly perform the aforementioned contract or has used the
	advance payment for purposes other than the costs of mobilization in respect of the
	Works.
3.	The Vendor/Contractor has requested us (Name of the Bank)(Address), which
	the expression shall unless otherwise repugnant to the context or meaning thereof
	include all its successors, administrators, representatives and permitted assignees,
	(herein after referred to as "the Guarantor") to issue an irrevocable bank guarantee in
	favour of the beneficiary, Cochin Smart Mission Limited.
4.	For effecting this advance payment, the Guarantor hereby guarantee to the effect that, we
	irrevocably under-take to pay the beneficiary merely on demand by the beneficiary,
	without any previous notice and without any demur and without recourse to the
	Vendor/Contractor and without referring to any other source, an amount not exceeding



bank shall be conclusive and binding, absolute and unequivocal notwithstan	ding any
difference between the Denefician and the Western Course	
difference between the Beneficiary and the Vendor/ Contractor or any di	spute or
disputes raised /pending before any court, Tribunal Arbitrator or any other aut	hority.
5. This guarantee will not be discharged due to the change in the constitution of the	e Bank or
the CONTRACTOR(S).	
6. This guarantee will become invalid three months after the completion of the _	
(scope of work) by the CONTRACTOR under the said Contract or as soon as this	Letter Of
Guarantee has been returned to us, whichever the latest, however, on	unless a
claim has been lodged with us under this guarantee before that date.	
7. The BENEFICIARY shall have the fullest liberty without affecting in any way the	e liability
of the bank under this guarantee from time to time to extend the time of perform	mance by
the CONTRACTOR. The Bank shall not be released from its liability under these	presents
by any exercise of the BENEFICIARY of the liberty with reference to the matter a	foresaid.
8. The Bank also agrees that the BENEFICIARY shall be entitled at his option to ent	force this
guarantee against the Bank as a Principal Debtor, in the first instance notwith	standing
any other Security or Guarantee that it may have in relation to the CONTR	ACTOR`s
liabilities.	
9. The Bank further agrees that the decision of the BENEFICIARY as to the failure or	n the part
of the CONTRACTOR to fulfil the Contractual obligations stipulated in the said	Contract
and/or to the amount payable by the Bank to the BENEFICIARY shall be final co	onclusive
and binding.	
10. This guarantee is revocable only with the written consent of the BENEFICIARY.	
11. This guarantee shall remain in force upto and including and shall be	extended
from time to time for such period as may be desired by M/s on who	se behalf
this guarantee has been given.	
NOT WITHSTANDING anything contained hereinbefore, our liability under this Gua	rantee is
restricted to Rs (Rupees (in words). Our Guarantee sha	ll remain
inforce till (days after the date of validity of the contract). Unless der	
claims under this Bank Guarantee are made to us in writing on or before (date = (date =(date =	

Section VIII. Annex to Special Conditions - Contract Forms

RFP FOR "PAN CITY SMART LED STREETLIGHTS IN KOCHI CORPORATION UNDER SMART CITIES MISSION, KOCHI (THIRD CALL)"



be one year over and above the validity period of BG), all rights of Beneficiary under this Bank
Guarantee shall be forfeited and we shall be released and discharged from all liabilities there
under.
Place:
Signature of the Bank's Authorized
Date: Signatory with Official Seal



	Format of Retention Money Security
	(Bank Guarantee- Unconditional)
[Ban	k's Name, and Address of Issuing Branch or Office]
Beneficiary:	Cochin Smart Mission Limited (CSML) 4th Floor, JLN Stadium Metro Station, Kaloor, Kochi - 682 017, India.
Date: <u>/</u>	.2023
We have bee Contractor")	en informed that [name of Contractor] (hereinafter called "the has entered into Contract No [reference number of the contract] dated th you, for the execution of "" [name of prief description of Works] (hereinafter called "the Contract").
Over Certifica certified for p guaranteed u than half of t	we understand that, according to the conditions of the Contract, when the Takingte has been issued for the Works and the first half of the Retention Money has been ayment, payment of [insert the second half of the Retention Money or if the amount nder the Performance Guarantee when the Taking-Over Certificate is issued is less the Retention Money, the difference between half of the Retention Money and the anteed under the Performance Security] is to be made against a Retention Money
to pay you an	t of the Contractor, we [name of Bank] hereby irrevocably undertake y sum or sums not exceeding in total an amount of [amount in figures] ($vords$] ¹ upon receipt by us of your first demand in writing accompanied by a written
	arantor shall insert an amount representing the amount of the second half of the Retention or or if the amount guaranteed under the Performance Guarantee when the Taking-Over



COCHIN SMART MISSION LIMITED

statement stating that the Contractor is in breach of its obligation under the Contract because the Contractor used the advance payment for purposes other than the costs of mobilization in respect of the Works or if in the opinion of Employer, Contractor did not perform well to reach upto the stipulated milestone target of Contract agreement.

It is a condition for any claim and payment under this guarantee to be made that the payment of the second half of the Retention Money referred to above must have been received by the Contractor on its account number _____ at _____ [name and address of Bank].

This guarantee shall expire, at the latest, 21 days after the date when the Employer has received a copy of the Performance Certificate issued by the Engineer. Consequently, any demand for

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No.458.

payment under this guarantee must be received by us at this office on or before that date.

This bank guarantee shall be payable at Ernakulum branch of bank & jurisdiction of court shall also be Ernakulum, Kerala, India.

[seal of the Bank and signature(s)]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

Certificate is issued is less than half of the Retention Money, the difference between half of the Retention Money and the amount guaranteed under the Performance Security and denominated either in the currency(ies) of the second half of the Retention Money as specified in the Contract, or in a freely convertible currency acceptable to the Employer.



COCHIN SMART MISSION LIMITED

Check List for Documents to be Uploaded

Cover No.	Cover Type	Description	Document Type
1	Fee/EMD/PreQual/ Technical	Scanned copy of Tender Document fee receipt	.pdf
		Bid Security (EMD)	.pdf
		Letter of Technical Bid (in case of JV/consortium, both partners must upload this form separately)	.pdf
		Financial proposal Cover letter	.pdf
		Inspectorate License	.pdf
		Certificate of incorporation/Form-G	.pdf
		BEE accreditation	.pdf
		Forms ELI-1, ELI-2 and LIT	.pdf
		FORMS EXP 1(in case of JV/consortium, both partners must provide EXP 1 separately), EXP 2a along with supporting docs by client LOA and completion cert. Qualification Criteria- Clause 1.4&1.5	.pdf
		Format for Declaration by the bidder for not being Blacklisted / Debarred	.pdf



Cover No.	Cover Type	Description	Document Type
		Format for Undertaking on Award criteria	.pdf
		Format for Declaration on Operation & Maintenance Charges	.pdf
		Power of Attorney as in page	.pdf
		Power of attorney in case of Consortium	.pdf
		JV/Consortium Agreement in case of JV/Consortium	.pdf
		FIN-1, FIN-2, FIN-3, FIN-4 AND FIN-6 (in case of JV/consortium, both partners must upload these forms separately)	.pdf
		Duly signed, stamped, and Scanned copy of all the bid documents	.pdf
		LM 79 and LM 80 test reports	.pdf
		Any other Supporting document	.pdf
		Any other Supporting Document	.pdf
2	Finance	(i) Duly Completed- priced Bill of Quantities	.xls