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Cochin Port Authority

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TENDER DOCUMENT FOR

“RETROFITTING AND REPLACEMENT OF OLD FEEDER PILLARS, LT PANELS & JUNCTION BOXES AT VARIOUS LOCATIONS IN WILLINGDON ISLAND ”

(TECHNICAL BID)

(e-Tendering Mode)

Website: www.gem.gov.in

**OFFICE OF THE
CHIEF MECHANICAL ENGINEER
I FLOOR, NEW ADMINISTRATIVE BUILDING,
COCHIN PORT AUTHORITY,
WILLINGDON ISLAND,
COCHIN-682 009**



TENDER DOCUMENT FOR
“RETROFITTING AND REPLACEMENT OF
OLD FEEDER PILLARS, LT PANELS & JUNCTION BOXES
AT VARIOUS LOCATIONS IN WILLINGDON ISLAND”

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COCHIN PORT AUTHORITY

SECTION I NOTICE INVITING TENDER

1 NOTICE INVITING TENDER

Tenders are invited through Government e- Marketing Place (GeM portal) in Single Stage Two Cover bidding procedure [Technical Bid and Financial Bid], by the Chief Mechanical Engineer, Cochin Port Authority, Willingdon Island, Cochin-682009, from reputed firms meeting the Minimum Qualification Criteria specified below for “**Retrofitting and Replacement of Old Feeder Pillars, LT Panels & Junction Boxes at various locations in Willingdon Island**”. Tenderers, who fulfill the Minimum Qualification Criteria and Terms and Conditions given below, may register their tenders through GeM well in advance on or before the scheduled date of submission.

2 MINIMUM QUALIFICATION CRITERIA (MQC)

Tenderer shall fulfill the following minimum qualifying criteria to prove the techno- commercial competence and submit the documents in support thereof:

2.1 Experience

The Bidder should have executed work involving ‘Supply, installation, testing and commissioning of works in LT electrical installations as follows during the last 7 (seven) years ending on **31/07/2024**;

- (a) One contract work costing not less than **Rs.4310961 /-** **OR**
- (b) Two contract works, each costing not less than **Rs.2694351 /-OR**
- (c) Three contract works, each costing not less than **Rs.2155481 /-**

This may be furnished in the Performa in ‘Annexure-4a&4b’ of the tender document. Also submit copy of Purchase Order/ Work order and Completion Certificate issued by the CoPA for those previous experiences mentioned in ‘Annexure-4a&4b’. The previous experience carried out by the tenderer as subcontract to the main contractor will also be accepted.

2.2 Financial Turnover

Average annual financial turnover should be at least **Rs. 1616611/-** during the last three (3) years, ending 31st March 2023[2020-21, 2021-22, 2022-23]. This may be furnished in the Proforma in ‘Annexure-5’ of the tender document.

2.3 License

The bidder shall possess minimum valid ‘**B Class**’ Electrical Contract License issued by any State/ Central Licensing Authority. Copy of the valid License shall be furnished.

2.4 Explanatory Notes:

Note 1: Following enhancement factors will be used for the costs of works executed for bringing the financial figures to a common base value in respect of the works completed in past years.

Table 1.1

Year before	Multiplying factor
One year [2023]	1.07
Two years [2022]	1.14
Three years [2021]	1.21
Four years [2020]	1.28
Five years [2019]	1.35
Six years [2018]	1.42

Note 2: Experience certificates of works executed in private sectors/ organizations shall be considered for qualification, only on submission of Form 26 AS along with work order and completion certificate.

Note 3: Performance/ completion certificate from the CoPA shall be submitted in support of the assignments/ works performed and claimed by the tenderer to fulfill the eligibility criteria for qualification. The completion certificate/ performance certificate shall contain the work order no, work order value, completed cost of work and completion date and signature of issuing authority.

Note 4: A statement showing the Average Annual Financial Turnover during the last three financial years and financial statements (balance sheet/ profit & Loss Statements) for the last three years ending 31/03/2023, duly certified by the Chartered Accountant shall be submitted.

2.5 Even though the tenderers meet the above qualifying criteria, they will be disqualified if they have:

- (i) Made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/ or
- (ii) Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history or financial failures etc.

3 Pertinent information to the tender is given in the following tables:

- (i) Schedule of different activities till submission of the tender are detailed as under:

Table 1.2

Sl. No.	Particulars	Date and Time
1.	Tender e-publication date	---/---/2024
2.	Download period of tender documents	17.00 hrs. on ---/---/2024 to 14.30hrs. on ---/---/2024
3.	Last date and time of submission of bid	---/---/2024 at 15.00 hrs.
4.	Date and time of opening the techno-commercial bid	---/---/2024 at 15.30hrs.

- (ii) Bid information:

Table 1.3

i)	Estimated Amount put to tender	Rs.53,88,702 /-including GST (Rupees Fifty Three Lakh Eighty Eight Thousand Seven Hundred and Two only)
ii)	Earnest Money Deposit. (Exemption shall be given as per Clause 8 below)	Rs.107774/- (Rupees One lakh Seven thousand Seven Hundred and Seventy Four only) . EMD shall be furnished in the form of Account Payee Demand Draft/ Banker’s Cheque from a Commercial Bank in India in favour of “FA&CAO, Cochin Port Authority”, payable at Cochin or online payment in an acceptable form safeguarding the purchaser’s interest in all respects) Exemption from payment of EMD shall be given on submission of MSME / UAM registration certificates
iii)	Cost of Tender document/ Processing Fee	Not Applicable
iv)	Validity period of tender	90 days from the last date for receipt of tenders
v)	Period of Contract	120days from the date of LOA

4 The scope of work includes the following works:

- a) Supply, Installation, Testing & Commissioning of 12 Nos LT Panels/Feeder Pillars and 4 Nos Outdoor Junction boxes at various locations
- b) Retrofitting of MCCBs in the existing panels at various locations
- c) Providing Roofing and Housing with foundation , wire mesh fencing , GI pipes/ angles , gate and lock etc. for the LT Panels .
- d) Supplying and making end termination for various sizes of LT cables.
- e) Dismantling Existing damaged Panels/ Feeder Pillars/ Jn. Boxes and handing over the same to T &R Section of CoPA in Willingdon Island
- f) Earthing the system
- g) Commissioning

The bidder shall visit the site, ascertain the site conditions and scope before bidding.

Tender documents which include Eligibility Criteria, Technical Specifications, various Conditions of Contract, Formats etc. are available in the GeM portal(<https://gem.gov.in/>), in the CoPA website (www.cochinport.gov.in) as well as in the Central Public Procurement Portal of Govt. of India, (www.eprocure.gov.in). Interested bidders have to necessarily register themselves in the GeM portal to participate in the tender and shall download the tender documents from these portals as per the provisions available therein on the dates specified in the above table.

- 5 A Single Stage Two Cover Bidding Procedure with Earnest Money Deposit (EMD) will be adopted and will proceed as detailed in the tender documents.
- 6 Bank details of Cochin Port Authority are as follows for online payment of EMD: State Bank of India, Cochin Port Trust Branch, MICR code:682002021, IFSC Code: SBIN0006367, Cochin Port Authority General Reserve Fund (GRF), Savings Bank Account No. 41401802288.
- 7 Exemption from the payment of EMD shall be given to Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or are registered with the Central Purchase Organization or the concerned Ministry or

Department as provided in GFR 2017.

- 8** Bidders should submit their bid proposal online, complete in all aspects including scanned copy of EMD or MSME / UAM registration certificate for exemption of EMD, in the Portal of GeM (<https://gem.gov.in/>) on or before last date and time of Bid Submission as mentioned in the tender strictly in accordance with the instructions to bidders (ITB), terms and conditions of the tender document. Original of EMD shall be submitted to the office of the undersigned on or before the due date of opening.
- 9** Any amendment(s)/ corrigendum(s)/ clarification(s) with respect to this tender shall be uploaded on the above mentioned websites only and no intimation will be sent to the individual bidders. The Bidder should regularly check for any Amendment(s)/ Corrigendum(s)/ Clarification(s) on the above mentioned websites.
- 10** The bidders shall agree to all the terms and conditions of the tender document.
- 11** On the due date of bid opening, the Techno-Commercial bids will be opened online in the GeM Portal. Bid proposals received without the prescribed Earnest Money Deposit (EMD) or Documents for exemption of EMD will be considered as non-responsive. In the event of any date indicated is a declared Holiday, the tender will be opened on the next working day.
- 12** For proper uploading of the bids on the portal namely <https://gem.gov.in/> (referred to as the 'portal'), it shall be the sole responsibility of the bidders to appraise themselves adequately regarding all the relevant procedures and provisions as detailed in the portal as well as by contacting GeM, through e-mail to: helpdesk-gem@gov.in or call on Toll Free Numbers (Inbound): 1-1800-419-3436/ 1-1800-102-3436 (9:00am-6:00pm Mon to Sat) Help Desk Out bound No's: +911244875125, 7042737878& +917556685120, as and when required.
- 13** Cochin Port Authority will not be held responsible for any technical snag or network failure during online bidding. It is the bidder's responsibility to comply with the system requirement, i.e. hardware, software and internet connectivity, at bidder's premises to access the GeM Portal. Under any circumstances, Cochin Port Authority shall not be liable to the bidders for any direct/indirect loss or damages incurred by them, arising out of incorrect use of the GeM Portal or internet connectivity failures.
- 14** The bidder should not have been blacklisted or debarred by any Central / State Government / Agency of Central / State Government / Public Sector Undertaking / Regulatory Authority of India at the time of submission of this bid.
- 15** The undersigned reserves the right to reject/cancel/postpone/annul the tenders at any stage of the tender, which will be binding on all bidders
- 16** This tender notice shall form part of the tender document and are to be signed and uploaded along with the technical bid.

CHIEF MECHANICAL ENGINEER
COCHIN PORT AUTHORITY

SECTION II

INSTRUCTIONS TO TENDERERS

1 Introduction

1.1 The proposal is for Retrofitting and Replacement of Old Feeder Pillars, LT Panels & Junction Boxes at various locations in Willingdon Island .

Location: The project area is at Willingdon Island, Ernakulam Dist, Kerala

The scope of work includes the following works:

- (a) Supply, Installation, Testing & Commissioning of 12 Nos LT Panels/Feeder Pillars and 4 Nos Outdoor Junction boxes at various locations
- (b) Retrofitting of MCCBs in the existing panels at various locations
- (c) Providing Roofing and Housing with foundation , wire mesh fencing , GI pipes/ angles , gate and lock etc. for the LT Panels.
- (d) Supplying and making end termination for various sizes of LT cables.
- (e) Dismantling Existing damaged Panels/ Feeder Pillars/ Jn. Boxes and handing over the same to T &R Section of CoPA in Willingdon Island
- (f) Earthling the system
- (g) Commissioning

The bidder shall visit the site, ascertain the site conditions and scope before bidding.

2 General Instructions

2.1 The work is to be executed as described in the Bid document and in particular in the Technical specifications, Special Conditions, Schedule of Quantities etc.and in general includes, but is not limited to supplying all items including consumables and equipment necessary to execute the work as described in the Bid Document.

2.2 Before submitting the bid, the bidder shall examine carefully all conditions of contract, specifications etc. The bidders shall inspect the site of work with prior appointment with the Engineer of the work to get himself acquainted with the site conditions and to assess and satisfy himself of the difficulties and constraints which may be involved in executing the work in the location. It will be deemed that prior to the submission of tender, the tenderer has visited the site and has satisfied himself as to the nature and location of the work, general and local conditions, particularly those pertaining to transportation, handling and availability and storage of materials, availability of labour, weather conditions, tidal variations at site, working conditions, ground level, nature of soil etc. and that the tenderer has estimated his cost accordingly and the Port Trust will be in no way responsible for the lack of such knowledge and also consequences thereof to the tenderer. Failure to visit the site will in no way relieve the successful bidder of any of the obligations in performing the work in accordance with this Bid Document including addendum/corrigendum, within the quoted

price.

- 2.3 A bidder shall be deemed to have full knowledge of all documents, site conditions etc. whether he has inspected them or not. The submission of a bid by the bidder implies that he has read the notice and conditions of contract and has made himself aware of the scope and specifications and other factors bearing on the bid and that they are binding on him.
- 2.4 The bidders may please note that the EMPLOYER will not entertain any correspondence or query on the status of the offers received against this Bid. Bidders are also requested not to depute any of their personnel or agents to visit the Employer's offices for making such enquiries till finalization of the bid. Should the EMPLOYER find it necessary to seek any clarification, technical or otherwise the concerned bidder will be duly contacted by the EMPLOYER.
- 2.5 Canvassing in any form by the bidder or by any other agency acting on behalf of the bidder after submission of the bid may disqualify the said bidder. The Employer's decision in this regard shall be final and binding on the bidder.
- 2.6 EMPLOYER will not be liable for any financial obligation in connection with the work until such time the EMPLOYER has communicated to the successful bidder in writing his decision to entrust the Work (covered by the bid document).
- 2.7 Telex/E-mail offers will not be considered. Bidders should prepare their bid themselves and upload in the Gem portal.
- 2.8 In case of an unscheduled holiday on the prescribed closing/opening day of the bid, the next working day will be treated as the scheduled prescribed day of closing/opening of the bid.
- 2.9 While evaluating the document, regard would be paid to National security considerations, at the discretion of the Cochin Port Authority. Bid received from any bidder may be summarily rejected on National security consideration without any intimation thereof to the bidder.
- 2.10 If there are varying or conflicting provisions made in any document forming part of the contract, the Chief Mechanical Engineer, Cochin Port Authority, Cochin – 682009 shall be the deciding authority with regard to the intention of the document which will be binding on the Bidder.
- 2.11 Any error in description, any omissions there from shall not vitiate the contract or release the contractors from the execution of whole or any part of the works comprised therein according to drawing and specifications or from any of his obligations under the contract
- 2.12 All the Bank Guarantees (BGs) to be furnished by the contractors in connection with the tender shall be sent to the Chief Mechanical Engineer, Cochin Port Authority directly by the issuing bank under registered post with AD. The contractor shall take the responsibility of sending BGs directly to the Port Authority by the issuing bank.
- 2.13 The contractor shall comply with all the provisions of the Indian Employees's Compensations Act, Provident Fund Regulations, Employees Provident Fund and ESI Act etc. amended from time to time and rules framed there under and other laws affecting the contract labour that may be brought in to force from time to time.

- 2.14 The contractor shall be registered under EPF and ESI Act and the employees employed under them shall be covered in the EPF and ESI scheme. Work Order shall be issued only to the contractors who are registered under EPF organization and ESI Corporation. The contractors shall regularly remit the employer and employee contribution to the authorities. If not, the Department would remit the same and the amount so remitted shall be deducted from the part/final bill of contractors.
- 2.15 The contractor shall be registered under GST and shall furnish documentary evidence in support of valid GST registration.

3 Invitation for Bids:

The Invitation for Bids is open to all eligible bidders meeting the eligibility criteria.

4 Purchase of Tender Documents:

Tender documents which include Eligibility Criteria, Technical Specifications, various Conditions of Contract, Formats etc. are available in the GeM portal(<https://gem.gov.in/>), in the CoPA website (www.cochinport.gov.in) as well as in the Central Public Procurement Portal of Govt. of India, (www.eprocure.gov.in) . Interested bidders have to necessarily register themselves in the GeM portal to participate in the tender and shall download the tender documents for submission from these portals as per the provisions available therein on the dates specified in the Tender documents. Demand Draft/Banker's cheque towards EMD, drawn in favour of the Financial Adviser & Chief Accounts Officer(FA &CAO), CoPA from any Commercial bank in India having its branch at Cochin shall be submitted in original at the Employer's office before the due date and time of opening of the bid and scanned copy of the same shall be attached with the e-tender.

5 One Bid per Bidder:

Each bidder shall submit only one bid. A bidder who submits or participates in more than one Bid will be summarily rejected

6 Cost of Bidding:

The bidder shall bear all costs associated with the preparation and submission of his Bid, and the Employer will in no case be responsible and liable for those costs.

7 Site visit:

The Bidder, at the Bidder's own responsibility and risk is encouraged to visit and examine the work site and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for execution of the Works. The costs of visiting the site shall be at the Bidders' own expense.

8 Clarification of the Bidding Documents:

The Tenderers are advised to examine the Tender Document carefully and if there be or appear to be any ambiguity or discrepancy in the documents, or any clarifications needed on the Tender Documents; these shall be sent through e-mail to: cme@cochinport.gov.in/ ajithkumar@cochinport.gov.in / aminaazeez@cochinport.gov.in

9 Pre-bid meeting:

Prebid Meeting will be conducted on the date notified in the NIT

10 Amendment of Bidding Documents:

The Chief Mechanical Engineer, Cochin Port Authority shall have the right to omit or suspend certain items of work or revise or amend the Bid documents prior to the due date of submission of the Bid by issuance of addendum/corrigendum. Any addendum/corrigendum thus issued shall be part of the tender documents. The addendum/corrigendum, if any, shall be hosted in the e-tender portal as well as in the website of the Cochin Port. It is the responsibility of the Bidders to download such addendum/corrigendum hosted in the website and submit the required documents for the same along with the Bid. In order to afford the Bidders with reasonable time to take addendum into account, or for any other reason, the Port may, at its discretion, extend the due date for submission of Bid.

11 Preparation of bids:

All documents relating to the bid shall be in the English language.

12 Minimum Qualifying Criteria: (MQC)

Tenderer shall fulfill the following minimum qualifying criteria to prove the techno- commercial competence and submit the documents in support thereof:

12.1 Experience

The Bidder should have executed work involving ‘Supply, installation, testing and commissioning of works in LT electrical installations as follows during the last 7 (seven) years ending on **31/07/2024**;

- (a) One contract work costing not less than **Rs. 4310961 /-** **OR**
- (b) Two contract works, each costing not less than **Rs. 2694351 /-** **OR**
- (c) Three contract works, each costing not less than **Rs. 2155481 /-**

This may be furnished in the Performa in ‘Annexure-4a&4b’ of the tender document. Also submit copy of Purchase Order/ Work order and Completion Certificate issued by the firm for those previous experiences mentioned in ‘Annexure-4a&4b’. The previous experience carried out by the tenderer as subcontract to the main contractor will also be accepted.

12.2 Financial Turnover

Average annual financial turnover should be at least **Rs. 1616611/-** during the last three (3) years, ending **31st March 2023 [2020-21, 2021-22, 2022-23]**. This may be furnished in the Performa in ‘Annexure-5’ of the tender document.

12.3 License

The bidder shall possess minimum valid ‘**B Class**’ Electrical Contract License issued by any State/ Central Licensing Authority. Copy of the valid License shall be furnished.

12.4 Explanatory Notes:

Note 1:

Following enhancement factors will be used for the costs of works executed for bringing the financial figures to a common base value in respect of the works completed in past years.

Table 1.1

Year before	Multiplying factor
One year [2023]	1.07
Two years [2022]	1.14

Three years [2021]	1.21
Four years [2020]	1.28
Five years [2019]	1.35
Six years [2018]	1.42

Note 2:

Experience certificates of works executed in private sectors/ organizations shall be considered for qualification, only on submission of Form 26 AS along with work order and completion certificate.

Note 3:

Performance/ completion certificate from the firm shall be submitted in support of the assignments/ works performed and claimed by the tenderer to fulfill the eligibility criteria for qualification. The completion certificate/ performance certificate shall contain the work order no, work order value, completed cost of work and completion date and signature of issuing authority.

Note 4:

A statement showing the Average Annual Financial Turnover during the last three financial years and financial statements (balance sheet/ profit & Loss Statements) for the last three years ending **31/03/2023**, duly certified by the Chartered Accountant shall be submitted.

12.5 Even though the tenderers meet the above qualifying criteria, they will be disqualified if they have:

- (a) Made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/ or
- (b) Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history or financial failures etc.

13 Bid Prices:

13.1 Item Rate basis contracts

The Bidder shall quote rates for all items as specified in the BoQ, including GST. The contract shall be for the whole work based on the priced Bill of Quantities submitted by the Bidder. Tenderer should ensure that his tendered amount as per Price bid is not mentioned anywhere in the techno commercial bid or any other documents in Technical bid submission, directly or indirectly. If any such mention is made, the tender will become invalid and shall be summarily rejected.

The rate quoted by the Tenderer shall be inclusive of the cost of provision of plant and equipment, materials, labour, execution, supervision, maintenance, overheads and profits and every incidental and contingent cost and charges whatsoever, including Goods and Service Tax (GST).

13.2 Currencies of Bid and Payment:

The price shall be quoted in Indian National Rupees (INR).

14 Bid Validity:

Bids shall remain valid for a period of not less than 90 (ninety) days from the Tender submission date. A bid valid for a shorter period shall be rejected by the Employer as non-responsive. Should any

tenderer withdraw his tender before the validity period will be treated as non-responsive and will be left out of consideration

15 Bid Security / EMD:

- 15.1 Each tender should be accompanied by an Earnest Money amounting to **Rs.107774** /-(Rupees **One lakh Seven thousand Seven Hundred and Seventy Four** only). The EMD shall be furnished in the form of Account Payee Demand Draft/ Banker's Cheque from a Commercial Bank in India in favour of FA&CAO, Cochin Port Authority, payable at Cochin or online payment in an acceptable form safeguarding the purchaser's interest in all respects. The Earnest Money deposit will not carry any interest. Any bid not accompanied by an acceptable Bid Security shall be treated as Non- responsive and shall be rejected by the Employer. Exemption shall be given to Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or are registered with the Central Purchase Organization or the concerned Ministry or Department).
- 15.2 Forfeiture of Bid security/ EMD: Bid Security/EMD will be forfeited in the following cases:
- (a) If a Bidder withdraws his bid during the period of bid validity.
 - (b) In the case of a successful bidder who fails
 - (i) to commence the work, within the specified time limit
 - (ii) to sign the Agreement or furnish the required Performance Security within the specified time limit.

16 Bid Submission:

Bid shall be submitted in two parts, **Part - I: Technical Bid** and **Part - II: Price Bid** through e-tender mode. For online submission of **Technical Bid**, the scanned copies of the documents under item nos. a) to k) as detailed in clause 17.1 below need to be submitted through e-Tendering mode on <https://gem.gov.in>. Price bid (Schedule-II), the total value of all the items mentioned in the Bill of Quantities shall be submitted only through e-tendering mode on <https://gem.gov.in> before 15.30 Hrs on the date notified in NIT.

17 Information Required In The Bid

17.1 Part I -Technical Bid shall contain the following:

- (a) Financial instrument towards EMD/ or relevant certificate for exemption of EMD
- (b) Letter of Submission (vide **Annexure-1**)
- (c) Power of Attorney (vide **Annexure-2**).
- (d) Organization Details (vide **Annexure-3**)
- (e) **Details of experience as per Annexure-4** and Certificates in proof of experience in similar works as detailed under clause 12 of Instruction to bidders.

Explanatory notes:

- 1) Self attested copy of completion certificates of each work and work order shall be attached. The certificate shall contain the following details:
 - (a) Details of work and completion cost
 - (b) Date of commencement ; and Date of completion of the work.

- 2) Financial documents in support of MQC. Statement duly certified by Chartered Accountant showing Average Financial turnover of the tenderer over the last three financial years [2020-21, 2021-22, 2022-23].(vide Annexure-5) supported by Financial statements such as Balance sheets, Profit & Loss statements for the last 3 years.
 - 3) Copies of PAN, GST, EPF and ESI registration
 - 4) Valid “B Class” or above grade Electrical Contractor’s license.
 - 5) Declaration as per Annexure-8 that
 - a) Confirmation that not made any payment or illegal gratification to any persons/ authority connected with the bid process so as to influence the bid process and have not committed any offence under PC Act in connection with the bid.
 - b) We disclose with that we have made / not made payments or propose to be made to any intermediaries (agents) etc in connection with the bid.
- Bank information for e- Payment system as per Annexure-10.

17.2 Part II : “Price Bid”

The Bidder shall fill in the rates and prices for all items of the works in the Bill of Quantities (BOQ) and shall submit the value of BoQ / Price Bid in GeM portal <https://gem.gov.in>. The quoted amount shall include all taxes and duties, including GST.

18 Deadline for Submission of the Bids:

Tenders attaching all documents shall be submitted through GeM portal strictly in accordance with the instructions to the tenderers, terms and conditions of tender document before the time and date notified in NIT.

19 Bid Opening

The Chief Mechanical Engineer or his representative will open the tenders in the GeM portal <https://gem.gov.in>. The technical bids of the tenders received will be opened on the due date of submission.

Failure to submit Bid Security (EMD) or valid NSIC/MSME/UAM registration certificate will make the tender defective and will be treated invalid and price bids of those tenderers will not be opened.

20 Bid Opening – Price Bid:

Price Bid of those tenderers found responsive in the evaluation of Technical bid, will be opened later. Short listed bidders will be communicated about the date and time of opening of the price bid.

21 Clarification of Bids:

- 21.1 The request for clarification and the response shall be in writing, but no change in the price or substance of the Bid shall be sought, offered, or permitted.
- 21.2 No Bidder shall contact the Employer on any matter relating to his bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Employer, he should do so in writing.
- 21.3 Any effort by the Bidder to influence the Employer's bid evaluation, bid comparison or contract award decisions, may result in the rejection of his bid.

22 Examination of Bids and Determination of Responsiveness:

- 22.1 Prior to detailed evaluation of Bids, Cochin Port Authority will determine whether each Bid
 - a) meets the minimum eligibility criteria defined in Clause 12.
 - b) is accompanied by the required Bid security(EMD) or MSME/UAM regn. certificate
 - c) is responsive to the requirements of the Bidding documents.
- 22.2 A responsive Bid is one which conforms to all the terms, conditions and specification of the Bidding documents, without material deviation or reservation. A material deviation or reservation is one which affects in any substantial way the scope, quality or performance of the Works;
 - a) which limits in any substantial way, the Employer's rights or the Bidder's obligations under the Contract; or
 - b) whose rectification would affect unfairly the competitive position of other Bidders presenting responsive Bids.
 - c) Undertakes in the Technical Bid that he has not incorporated any conditions in the Financial Bid.
 - d) **The financial evaluation will be carried out together for all the items and contract will be awarded to the overall lowest offer.**

If a Bid is not substantially responsive, it shall be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

23 Evaluation and Comparison of Bids:

The Employer will evaluate and compare only the Bids determined to be responsive in accordance with Clause 23.

- 23.1 Evaluation of Price Bid
 - a) The tenderers shall quote their rates for all the items as per schedule, including GST, in the GeM portal.
 - b) Only those tenders, as determined to be substantially responsive to the requirements of the Tender Documents will be evaluated. Other non-responsive tenders will be rejected. Cochin Port's decision on this shall be final, conclusive and binding.
 - c) In order to determine the lowest evaluated bid, Cochin Port Authority will consider overall lowest of all the items together.

24 Alteration of tender documents:

No alteration shall be made in any of the tender documents or in the Bill of Quantities and the tender shall comply strictly with the terms and conditions of the tender document. The Employer may

however ask any tenderer for clarifications of his tender if required. Nevertheless, no tenderer will be permitted to alter his tender price after opening of the tender.

25 Alternative conditions and Proposal:

The Tenderer shall note that alternative or qualifying tender conditions, or alternative design proposal for whole or part of the work will not be acceptable. Tenders containing any qualifying conditions or even Tenderer's clarifications in any form will be treated as non-responsive and will run the risk of rejection. Price Bid of such Tenderer's will not be opened.

26 Award of Contract:

The Employer will award the Contract to the bidder whose bid has been determined to be responsive to the bidding documents and who has offered the lowest evaluated bid price, provided that such bidder has been determined to be

1. Eligible in accordance with the provisions of Clause 12, and
2. Qualified in accordance with the provisions of Clause 12.

27 Letter of Award ("LoA")

Prior to expiry of the validity or extended validity period of the Tender, the Employer will notify the Successful Bidder through e-mail confirmed by registered letter that its Tender has been accepted. This Letter (hereinafter and in the Contract Conditions referred to as the "Letter of Award" (of the Tender) or "LoA") shall specify the sum which the Employer will pay the Contractor (hereinafter and in the Contract Conditions referred to as the "Contract Price") in consideration of the execution and completion of the Works for the Project and the remedying of any defects therein by the Contractor in terms of the Contract.

28 Performance Security:

The successful bidder is required to submit Security Deposit within 21 days from the date of receipt of Letter of Acceptance (LoA), to guarantee fulfillment of performance and the obligations of the contract, in any one of the following forms: (i) Account Payee Demand Draft from a Commercial Bank in India in favour of FA&CAO, Cochin Port Authority OR (ii) An irrevocable and unconditional Bank Guarantee as per format attached with tender document, from a Commercial Bank in India OR (iii) On-line payment to the Bank Account of Cochin Port Authority.

The value of Security Deposit shall be equivalent to 10% of the total contract value.

In case the Security Deposit is furnished in the form of Bank Guarantee, the same should remain valid for a period of 60 days beyond the completion of contract period.

Cochin Port Authority is not bound to pay interest on the Security Deposit furnished by the successful bidder.

In the event of the Contractor failing to honour any of the commitments entered into under this Contract, Cochin Port Authority shall have unconditional option to encash the Security Deposit. The bank shall be obliged to make payment to Cochin Port Authority upon demand.

In the event of the tenderer, after the issue of the communication of acceptance of offer by the Board, failing / refusing to execute the agreement as hereinafter provided, the tenderer shall be deemed to have abandoned the contract and such an act shall amount to and be construed as the Contractor's calculated and the willful breach of the contract, the cost and consequence of which shall be to the sole account of the tenderer and upon such an event the Board shall have full right to claim damages therefore either together with or in addition to the conditions mentioned in Clause 15.2.

29 Signing of Agreement

After furnishing the Performance Security, the successful tenderer will be required to execute an Agreement at his expense within 28 (twenty eight) days from the date of LoA, on Kerala State Stamp Paper of appropriate value in the prescribed form. The agreement as finally executed will include the Employer's Bid Documents and the Bidder's offer as finally accepted by the EMPLOYER together with addendum/corrigendum, bid clarification and all correspondences exchanged between EMPLOYER and the bidder, if any. Till the formal agreement is executed, the Letter of Acceptance together with the offer as finally accepted along with correspondences shall form a binding contract between the two parties.

30 Release of Bid Security /EMD:

The Bid Security/EMD of unsuccessful bidder other than L1 and L2 will be refunded immediately after ranking of the Bids. The bid security of L2 bidder shall be refunded immediately after entering into agreement with L1 bidder and acceptance of the Performance Security. The Bid Security of the successful bidder will be discharged after he has signed the Agreement and furnished the required Performance Security.

31 Fraud and Corrupt Practices:

31.1 The bidder and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this document, the Port shall reject the tender without being liable in any manner whatsoever to the bidder, if it determines that the bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the "Prohibited Practices") in the Selection Process. In such an event, the Port shall, without prejudice to its any other rights or remedies, forfeit and appropriate the Bid Security or Performance Security, as the case may be, as mutually agreed genuine pre-estimated compensation and damages payable to the Port for, inter alia, time, cost and effort of the Authority, in regard to the Tender, including consideration and evaluation of such Bidder's Proposal. Such Bidder shall not be eligible to participate in any tender or RFP issued by the Authority during a period of 2 (two) years from the date such Bidder is found by the Authority to have directly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.

31.2 For the purposes of this Clause, the following terms shall have the meaning hereinafter respectively assigned to them:

a) "corrupt practice" means

- i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the Selection Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Authority who is or has been associated in any manner, directly or indirectly with the Selection Process or the LOA or has dealt with matters concerning the Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Authority, shall be deemed

- to constitute influencing the actions of a person connected with the Selection Process; or
- ii) engaging in any manner whatsoever, whether during the Selection Process or after the issue of the LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Agreement, who at any time has been or is a legal, financial or technical consultant/ adviser of the Authority in relation to any matter concerning the Project;
- b) “fraudulent practice” means a misrepresentation or omission of facts or disclosure of incomplete facts, in order to influence the Selection Process;
- c) “coercive practice” means impairing or harming or threatening to impair or harm, directly or indirectly, any persons or property to influence any person’s participation or action in the Selection Process;
- d) “restrictive practice” means forming a cartel or arriving at any understanding or arrangement among Applicants with the objective of restricting or manipulating a full and fair competition in the Selection Process.
- e) “undesirable practice” means
 - i. establishing contact with any person connected with or employed or engaged by the Authority with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or
 - ii. having a Conflict of Interest

32 Rejection of Tender:

Any Tender not conforming to the foregoing instructions will not be considered. The Employer does not bind himself to accept the lowest or any tender and has the right to reject any tender without assigning any reason thereof. No representation whatsoever will be entertained on this account

33 Conditions for bid submission by JV

- 33.1 Companies/Contractors may jointly undertake contract/contracts. Each entity would be jointly and severally responsible for completing the task as per the contract, however declaration of the Lead member to be indicated by bidders, however JV has to designate in their MOU. The firms with at least 26% equity holding each be allowed to jointly meet the eligibility criteria.
- 33.2 Bid submitted by an unincorporated Joint Venture of companies (JV) /Consortium of companies (Consortium), shall comply with the following requirements:
 - a) There shall be a Joint Venture Agreement between the constituent firms specific for the contract package for which the bids are submitted. The JV Agreement shall include among other things, the joint venture’s objectives, the proposed management structures, the proposed distribution of responsibilities both financial as well as technical for execution of the work, the contribution of each partner to joint venture operation, the commitment of all partners to jointly and severally liable for due performance, recourse/ sanctions within the joint venture in the event of default or withdrawal of any partner and arrangements for providing the required indemnities.
 - b) The most experienced partner will be nominated as the Lead Partner and his nomination shall be evidenced by submitting power of attorney signed by the legally authorised signatories of all the partners.
 - c) The Lead Partner of the joint venture will provide suitable experienced personnel for at least 3 (three) positions in the assignment during the whole period of contract execution

- and a statement to this effect should be included in the Joint Venture Agreement.
- d) The bid and in the case of the successful bidder, the Agreement, shall be signed and / or executed in such a manner for making it legally binding on all partners (including operative parts of the ensuing Contract in respect of Agreement of Arbitration, etc.). The Contract shall be signed by legally authorised signatories of all partners.
 - e) The Lead Partner shall be authorised to incur liabilities and to receive instructions for and on behalf of the partners of the Joint venture and entire execution of the Contract including payment shall be carried out exclusively through the Lead Partner. A Statement to this effect should be included in the Joint Venture Agreement.
 - f) All partners of the Joint Venture shall be liable jointly and severally for the execution of the Contract in accordance with the Contract terms, and a Statement to this effect should be included in the Joint Venture Agreement.
 - g) Bid Security as required can be furnished by any partner but it shall be in the name of Joint venture.
 - h) Performance Guarantee, as required, will be furnished by all partner(s), out of their accounts, in proportion of their participation in joint venture.
 - i) Joint Venture Agreement shall contain a clause to the effect that there shall be a separate JV Bank Account (distinct from the Bank Account of the individual partners) to which the individual partners shall contribute their share capital and/or working capital.
 - j) Joint Venture Agreement shall also contain a clause to the effect that the financial obligation of the JV shall be discharged through the said JV Bank Account only and also all payment received by JV from the Employer shall be through that account only.
 - k) Participation by a firm in more than one JV /Consortium is not permissible. A firm who submits bid on individual capacity is not eligible to be a partner of a JV /Consortium. In case a firm's name appears in more than one bid then both application may be rejected.
 - l) Each partner must submit the complete documentation, or portions applicable thereto, required to qualify the firm for bidding.
 - m) All the partners of the JV/Consortium shall be jointly and severally liable for due performance, recourse/sanctions within the joint venture in the event of default of any partner and arrangements for providing the required indemnities.
 - n) Notwithstanding demarcation or allotment of work among the partners, each partner shall be liable for non performance of the whole contract irrespective of their demarcation or share of work.
 - o) The Lead Partner shall be authorized to act on behalf of the JV/Consortium.
 - p) All the correspondences between the Employer and the contractor shall be routed through the Lead Partner.
 - q) In the event of default by the Lead Partner, it shall be construed as default of the Contractor; and Employer will take action under relevant clause(s) of the Bid Document and/or General Terms and Conditions of Contract.
 - r) A legally binding Joint Venture/Consortium Agreement signed by authorised signatories of all the partners of the JV/Consortium, as per the Performa at **Annexure-13** shall be enclosed with the bid.
 - s) In case, the Joint Venture/Consortium Agreement enclosed with the bid is not acceptable to the Employer, the JV /Consortium will modify the agreement so as to be acceptable to the Employer.
 - t) Power of attorney duly executed and signed by legally authorized signatories of all the partners, authorizing the Lead Partner (a) to submit bid, negotiate and conclude contract and incur all liabilities therewith on behalf of the partner(s) of the JV /Consortium during

- the bidding process; and (b) in the event of a successful bid, to incur liabilities and receive instructions for and on behalf of the partner(s) of the JV /Consortium and to carry out the entire execution of the contract including payment, exclusively through Lead Partner, as per the Performa at **Annexure-14**, which shall be duly authenticated by a notary public or equivalent certifying authority, shall be enclosed with the bid.
- u) An undertaking that all the partners are jointly and severally liable to the Employer for the performance of the contract shall be enclosed with the bid.
 - v) In the event of any partner leaving the JV, it shall be intimated to the Employer within 30 days by other partner(s). Failure to do so shall be construed as default of the contractor and the Employer may take action under relevant clause(s) of the Bid Document and/or General Terms and Conditions of Contract
 - w) The contractor shall not alter its composition or legal status without the prior written permission of the Employer. Failure to do so shall be construed as default of the contractor and the Employer may take action under relevant clause(s) of the Bid Document and/or General Terms and Conditions of Contract.
 - x) One of the partners of JV/Consortium should have downloaded the bid documents.
 - y) Number of partners in JV/Consortium shall be limited to maximum of three.

SIGNATURE OF BIDDER

SECTION III GENERAL CONDITIONS OF CONTRACT (GCC)

1 Definitions and Interpretation

The following words and expressions in this Bid Document shall have the meanings hereby assigned to them except where the context otherwise requires:

- a) **“Employer/ CoPA/ Port/ Cochin Port/ Board/ Authority”** means “Board of Major Port Authority for Cochin Port” constituted under Major Port Authorities Act 2021, having its principal office at W/Island, Cochin-9, India and acting through its Chairperson, Deputy Chairperson or the Chief Mechanical Engineer or any other officers, so nominated by the Board.
- b) **“Bidder/ Contractor(s)/ Applicant”** means the person or persons, firm, corporation or Company who submits a Bid (Proposal/Tender) for the subject Work.
- c) **“Award Price/ Contract Price”** means the sum indicated in the Price Bid/ **Financial Bid** submitted by the successful Bidder.
- d) **“Chief Mechanical Engineer (CME)”** means the Chief Mechanical Engineer of Cochin Port Authority.
- e) **“Engineer/ Officer-In-Charge”** means Dy. Chief Mechanical Engineer/ Superintending Engineer/ Executive Engineer in charge of this Work as nominated by the Chief Mechanical Engineer.
- f) **“Work / Assignment”** means the works to be executed by the contractor as detailed in this Bid Document.
- g) **“Date of Commencement of Work”** means the actual date on which the work commences or the seventh day from the date of issue of Letter of Acceptance through GEM to the Contractor, whichever is earlier.
- h) **“Bid Document/ Tender Document/ RFP”** means this Document inviting Bids from the Bidders for the Assignment.
- i) **“Proposal/ Bid”** means the Bid Document in response to which the bidder’s proposal for carrying out the work was accepted.

Notes:

- (i) **Singular and Plural:** Words importing the singular only also include the plural and vice versa where the context requires.
- (ii) **Headings:** The headings as mentioned in the Bid Document shall not be taken to be part thereof Bid Document or be taken into consideration in the interpretation or construction thereof or of the Contract

2 General Provisions

Where it is mentioned in the Specifications that the Contractor shall perform certain Work or provide certain facilities, it is understood that the Contractor shall do so at his own Cost.

The materials, design and workmanship shall satisfy the relevant Indian Standard, the Specification and conditioned herein referred to. Where the Specifications stipulate requirement in addition to those contained in the Standard codes and Specifications, these additional requirements shall also be satisfied.

2.1 Law Governing the Contract This Contract, its meaning and interpretation and the relation between the Parties shall be governed by the Applicable Indian Law.

2.2 Notices

Any notice, request or consent made pursuant to this Contract shall be in writing and shall be deemed to have been served when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent by registered mail, e- mail or facsimile to such Party from the address specified below:

The Chief Mechanical
Engineer, Chief
Mechanical Engineer's
Office,
Cochin Port Authority, Cochin – 682 009,
Kerala, India.Tel: 91-0484-2666639, 2666871
Extn:2500
Fax: 91-0484-2666639

E-mail: cme@cochinport.gov.in/ ajithkumar@cochinport.gov.in / ymini@cochinport.gov.in

2.3 Scope of Work: The Goods and Related Services to be supplied shall be as specified in Scope of Work and Technical Specifications and in accordance with Schedule of Requirements.

2.4 Specification and Standards:

Technical specification and drawings:

- (a) The Goods and Related Services supplied under this contract shall conform to the Technical Specifications and Standards mentioned in Section V, Scope of Work and Technical Specifications and when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate.
- (b) The Contractor shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Employer, by giving a notice of such disclaimer to the Employer.

Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Schedule of Requirements. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Employer and shall be treated in accordance with GCC.

2.5 Delivery and Completion: The delivery of the Goods and completion of the Related Services shall be done within 120 days from the date of receipt of Letter of Acceptance of Employer. The details of shipping and other documents to be furnished by the Contractor are specified in the GCC Clause 35 (Payments Terms)

3 Care and diligence

The Contractor shall exercise all reasonable care and diligence in the discharge of all technical, professional and contractual duties to be performed by them under this contract and shall be fully responsible to the Employer for the proper, timely, efficient and effective execution of their duties.

4 Suspension of Work

If any of the following events shall have happened and be continuing, then CoPA may, by written notice to the Contractor, suspend in whole or in part, payment due thereafter to the Contractor under the Contract: “In case of any breach of contract / tender conditions then Cochin Port will be entitled to terminate the contract by giving notice of 30 days. In such event, the contractor will not be entitled for any compensation for termination and will also be responsible to make good all costs incurred by CoPA due to the breach”

- j) A default shall have occurred on the part of the Contractor in the execution of the Contract.
- k) Any other condition which makes it unable for either party by reason of Force Majeure as referred to in **Clause 6** to successfully carry out the Work or to accomplish the purpose of the Contract

5 Termination of Work

5.1 Termination of Work by CoPA

If any of the following events shall have happened and be continuing, then Cochin Port Authority may, by written notice to the Contractor, terminate the contract

- a) Any of the conditions referred to in **Clause 4** shall continue for a period of two weeks, CoPA shall give written notice to the Contractor of the suspension of payment to the Contractor under the contract.
- b) In any event, CoPA may terminate the Contract at any time by giving not less than two weeks prior notice to the Contractor.
- c) In case of any breach of contract / tender conditions then Cochin Port will be entitled to terminate the contract by giving notice of 30 days. In such event, the contractor will not be entitled for any compensation for termination and will also be responsible to make good all costs incurred by CoPA due to the breach.

5.2 Termination Procedure

Upon termination of the Contract under **Clause 5** or receipt of notice of Termination under Clause 5.1, the Contractor shall take immediate steps to terminate the Work in a prompt and orderly manner and to reduce losses and to keep further expenditure to a minimum

6 Force Majeure

- a. If either party is temporarily unable by a reason of Force Majeure or the laws or regulations of India to meet any of its obligations under the Contract, and if such

party gives to the other party written notice of the event within two weeks after its occurrence, such obligations of the party as it is unable to perform by reason of the event, shall be suspended for, as long as the inability continues

- b. Neither party shall be liable to the other party for loss or damage sustained by such other party arising from any event referred to in Clause (a) above or delays arising from such event
- c. The term Force Majeure as employed herein, shall mean Act of God, Strike, Lock-outs or other Industrial Disturbances, Insurrection, Riots, Epidemics, Pandemics, Land Slides, Earth Quakes, Storms, Lightening, Floods, Wash Outs, Civil Disturbances, Explosions and any other similar event not within the control of either party, and which, by the exercise of due diligence, neither party is able to overcome.
- d. Force Majeure shall not include (i) any event which is caused by the negligence or intentional action of a party or such party's associates/affiliates or agents or employees, nor
- e. any event which a diligent party could reasonably have been expected to both (A) take into account at the time of the conclusion of this Contract and (B) avoid or overcome in the carrying out of its obligations hereunder

7 Dispute between the Contractor and Cochin Port

- a) It is the term of this contract that in case of any disputes or differences between the parties, the parties shall try to resolve the same through mutual discussions.
- b) In the event of any dispute or differences between the parties which could not be resolved amicably by mutual consultations, then the aggrieved party shall seek the Chairperson of Cochin Port Authority to refer such unresolved disputes or differences to a Conciliation Committee/Council comprising of independent subject experts, set up by the Port Authority to enable speedy disposal of pending/new cases. Recourse to such conciliation shall be open before, during or after the arbitration proceedings. The award of the Conciliation Committee/Council, if agreed by both the parties, shall then be placed for consideration of the Board of Major Port Authority for Cochin Port constituted under Major Port Authorities Act 2021 subject to the delegation of powers.
- c) The disputes and differences unresolved through above process shall be adjudicated by the competent Courts. The Courts in Cochin will alone have the jurisdiction to resolve disputes and differences.

8 Interpretation

In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Engineer or his nominee will provide instructions clarifying queries about the Conditions of Contract.

If sectional completion is specified in the Contract Data, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended). Completion date for the whole of the Works.

The documents forming the Contract shall be interpreted in the following order of priority:

- (1) Agreement
- (2) Letter of Acceptance and notice to proceed with works
- (3) Contractor's Bid
- (4) Contract Data

- (5) Conditions of Contract including Special Conditions of Contract
- (6) Specifications
- (7) Drawings
- (8) Bill of quantities and
- (9) Any other documents listed in the Contract Data as forming part of the Contract

9 Subcontracting

The Contractor may subcontract with the approval of the Engineer or his nominee but may not assign the Contract without the approval of the Employer in writing. Subcontracting does not alter the Contractor's obligations.

Notwithstanding any subcontracting with such approval as required under above and notwithstanding that the Engineer shall have received copies of any sub-contract, the Contractor shall be solely responsible for the quality and proper execution of the works, performance of all conditions of contract in all respects as if such subletting had not taken place and as if such work has been done directly by the Contractor.

If any Sub-Contractor engaged upon the works at the site executes any work, which in the opinion of the Engineer or his nominee is not in accordance with the Contract condition, written notice may be given to the Contractor requesting him to terminate such sub contract and the Contractor, upon receipt of such notice shall terminate such sub contract and the said Sub Contractor shall forthwith leave the works, failing which the Employer shall have right to remove such Sub Contractors from site. No action taken by the Employer under this clause shall relieve the Contractor of any of his liabilities under the contract or give rise to any compensation, extension of time or otherwise.

10 Personnel

The Contractor shall employ the key personnel named in the Schedule of Key Personnel as referred to in the Contract Data to carry out the functions stated in the Schedule or other personnel approved by the Engineer or his nominee. The Engineer or his nominee will approve any proposed replacement of key personnel only if their qualifications, abilities, and relevant experience are substantially equal to or better than those of the personnel listed in the schedule.

If the Engineer or his nominee asks the Contractor to remove a person who is a member of the Contractor's staff from his work force stating the reasons, the Contractor shall ensure that the person leaves the site within seven days and has no further connections with the work in the contract.

11 Contractor's Responsibilities:

The Contractor shall supply all the Goods and Related Services included in the Scope of Work in accordance with GCC Clause 2.

11.1 Phasing of Work:

The contractor will be required to furnish a phased programme of the works as to how he intends to complete the work to the Employer within 7 days from the date of receipt of the Work Order/Letter of Acceptance from the Employer. The contractor shall indicate separate definite times for completion of various parts of the work. He will be required to adhere to such programme so as to complete the entire work within the stipulated completion period. The Contractor shall furnish progress report to the Employer on fortnightly basis for monitoring by the Employer.

11.2 Procurement of materials:

The Contractor must make his own arrangements for timely procurement of all materials, machinery, equipment etc. of specified and or approved quality required by him for the efficient and regular execution of the works comprised in this contract from the manufacturers and suppliers concerned.

Delay in supply of any of these materials, machinery, equipment etc. will not be taken as an excuse for not completing the contract within the stipulated period.

11.3 Compliance of regulations:

The contractor warrants that all Goods/Materials covered by the contract have been produced, sold, dispatched, delivered and furnished in strict compliance with all applicable laws, regulations, labour agreement, working condition and technical codes and statutory requirements as applicable from time to time. The Supplier shall ensure compliance with the above and shall indemnify Employer against any actions, damages, costs and expenses of any failure to comply as aforesaid

12 Employer's and Contractor's Risks

The Employer carries the risks which this Contract states are Employer's risks and the Contractor carries the risks which this Contract states are Contractor's risks.

13 Employer's Risks

The Employers risks are

- (a) Loss or damage due to the use or occupation by the Employer of any Section or part of the Permanent Works, except as may be provided for in the Contract;
- (b) Loss or damage to the extent that it is due to the design of the Works, other than any part of the design provided by the Contractor or for which the Contractor is responsible; and
- (c) Any operation of the forces of nature (in so far as it occurs on the Site) which an experienced Contractor:
 - (i) could not have reasonably foreseen, or
 - (ii) could reasonably have foreseen, but against which he could not reasonably have taken at least one of the following measures:
 - (A) prevent loss or damage to physical property from occurring by taking appropriate measures, or
 - (B) insure against.

14 Contractor's Risks

All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the excepted risks are the responsibility of the Contractor.

Excepted risks are riot (in so far as it is uninsurable) war, invasion, act of foreign enemies, hostilities (whether war be declared or not), civil war, rebellion, revolution, insurrection or military usurped power or a cause solely due to use of occupation by the Employer of any portion of the work, any operation of the forces of nature that the Contractor could not have foreseen or reasonably provided against. (All of such are herein collectively referred to as the excepted risks).

15 Insurance

The Contractor shall provide in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the Contract Data for the following events which are due to the Contractors risks.

- a) loss of or damage to the Works, Plant and Materials
- b) loss of or damage to Equipment;
- c) loss of or damage of property (except the Works, Plant, Materials and

Equipment) in connection with the Contract; and
Policies and certificates for insurance shall be delivered by the Contractor to the Engineer or his nominee for approval before the start date. All such insurances shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.
If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from any payments due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.
Alterations to the terms of insurance shall not be made without the approval of the Engineer or his nominee.
Both parties shall comply with all conditions of the insurance policies. .

16 Instructions

The Contractor shall carry out all instructions of the Engineer or his nominee which comply with the applicable laws where the Site is located.

17 The Works to be completed by the Intended Completion Date

The Contractor may commence execution of the works on the Start Date and shall carry out the works in accordance with the program submitted by the Contractor as updated with the approval of the Engineer or his nominee, and complete them by the Intended Completion Date

18 Approval by the Engineer or his nominee

The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works or Permanent Works, in the case of Contractor's design to the Engineer or his nominee, who is to approve them if they comply with the specifications and Drawings.

19 Port Entry Permission

The Contractor shall submit prior application for Port entry passes to the concerned Port authority for his labours and the staffs engaged in the works.
The Contractor shall retain the original passes obtained by them in respect of their labour and staff engaged in the Works and produce the same to the Engineer as and when called for. It should not be either destroyed or allowed to be taken by the labour/staff after its use

20 Noise and Disturbance

All works shall be carried out without unreasonable noise and disturbance. The Contractor shall indemnify the Employer from and against any liability for damages on account of noise or other disturbance created while or in carrying out the work and from and against all claims demands proceedings damages costs charges and expenses whatsoever in regard or in relation to such liability

21 Possession of the Site

The Employer shall give possession of all parts of the Site to the Contractor, free from encumbrances. If possession of a part is not given by the date stated in the Contract Data the Employer is deemed to have delayed the start of the relevant activities and this will be a Compensation Event

22 Access to the Site

The Contractor shall allow the Engineer or his nominee and any person authorised by the Engineer or his nominee access to the Site or 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, except for any security reasons.

23 Safety Code

Necessary Indian Dock Safety regulations for the safety purpose shall be adhered to by the Contractor and he will be held responsible for any violations of the same.

24 Port Authority Rules

Contractor shall always observe and comply with the working rules and regulations of the Port Authority in force or as issued from time to time.

25 Execution of work

The Contractor shall be required to execute the work in such a way so as not to cause any damage, hindrance or interference with port activities going on in the area or nearby. He should not also deposit the materials at such places which may cause inconvenience to the public and the work going on in the nearby area. The Contractor shall have to make good all damages done by him to the structures nearby while executing the work and no extra payment shall be made to him on that account

26 Labour Laws & Regulations

The Contractor shall at all times during the continuance of the Contract comply fully with all existing Acts, regulations and bye-laws including all statutory amendments and re- enactment of State or Central Govt. and other local authorities and any other enactments and act that may be passed in future either by the State or the Central Govt. or local authority, including Indian Employees's Compensation Act, Contract Labour (Regulation And Abolition) Act 1970 and Equal Remuneration Act 1976, Employees' State Insurance Act, 1948, Factories Act, Minimum Wages Act, Provident Fund Regulations. Employees' Provident Fund Act and schemes made under the same Act, Health and Sanitary Arrangements for Workmen, Insurance and other benefits and shall keep the Employer indemnified in case any action is commenced for contravention by the Contractor

27 Payment upon Termination

If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer or his nominee shall issue a certificate for the value of the work done upto the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law and less any extra cost of completing the Works through other means which may be incurred by the Employer. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.

If the Contract is terminated at the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Engineer or his nominee shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and loss of profit on uncompleted works less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law.

28 Disorderly Conduct

The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst his staff and labour and for the preservation of peace and protection of Persons and property in the neighborhood of the Works from the same.

29 Health and Safety

Due precautions shall be taken by the Contractor, and at his own cost, to ensure the safety of his staff and labour and, in collaboration with and to the requirements of the local health authorities, to ensure that medical staff, first aid equipment and stores, sick bay and suitable ambulance services are available at the camps, housing and on the site at all times throughout the period of the Contract and

that suitable arrangements are made for the prevention of epidemics and for all necessary welfare and hygiene requirements.

30 Epidemics

In the event of any outbreak of illness of an epidemic nature, the Contractor shall comply with and carry out such regulations, orders and requirements as may be made by the Government, or the local medical or sanitary authorities for the purpose of dealing with and overcoming the same

31 Reporting of Accidents

The Contractor shall report to the Engineer details of any accident as soon as possible after its occurrence. In the case of any fatality or serious accident, the Contractor shall, in addition, notify the local police authorities immediately by the available means.

32 Observance by Sub-Contractors

The Contractor shall be responsible for observance by his sub-Contractors of the foregoing provisions.

33 Insurance:-

The technicians deployed for work are to be covered by insurance under Workman Compensation Policy through reputed Insurance Companies during the contract Period. Copies of the Insurance Policies are to be submitted to the CoPA along with first bill.

34 Registers:

Following registers are to be maintained by technicians without fail:

Work/ Hindrance Register have to be maintained by the contractor and endorsement from engineer-in-charge has to be obtained in register.

35 Payment Terms:-

35.1 Contract Price

Prices charged by the Contractor for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Contractor in its Tender, with the exception of any price adjustments authorized by the Employer by issuing Change orders and Contract Amendment, if

- i) Bills shall be prepared and submitted by the Contractor. Joint measurements shall be taken continuously and need not be connected with billing stage. System of 4 copies of measurements, one each for Contractor, Employer and Engineer or his nominee, and signed by both Contractor and Engineer or his nominee shall be followed.
- ii) Final Bill shall be paid within 3 months as detailed below on issue of Taking over Certificate by the Engineer or his nominee. The Contractor shall submit final Bill within 30 days of issue of Taking Over Certificate. Engineer or his nominee shall check the bill within 30 days after its receipt and return the bill to Contractor for corrections, if any. The Contractor should re-submit the bill with corrections within 15 days of its return by the Engineer or his nominee. The re-submitted bill shall be checked and paid within 30 days of its receipt.
- iii) The Contractor shall be entitled upon certificates of the Engineer or his nominee to payments in accordance with the following provisions:

I. For supply portion:

75% of the value, as certified by the Engineer or his nominee, of the

materials from time to time delivered on the site.

Balance 25% after completing the work in all respects, commissioning and handing over the installation to the Employer to the satisfaction of the Engineer and his nominee and his certification.

II. For erection portion :

85% of the value as certified by the Engineer or his nominee, of the installation portion on completion of the erection work under contract, for which payments are claimed.

Balance 15% along with other payments if any, after completing the work in all respects, commissioning and taking over the installation by the Employer to the satisfaction of the Engineer and his nominee and his certification. .

- (iii) The contractor shall issue GST compliant invoice showing GST component separately . Statutory deduction towards income tax will be made by the employer as per prevailing rates
- (iv) Rate Revision in the contract amount is not be permitted during the entire validityperiod of 5 years of the contract for any reason including during the extended period.
- (v) No further claims shall be made by the Contractor after submission of the final bill and these shall be deemed to have been waived and extinguished.

36 Water and Power Supply

Water required for the construction works including curing work shall be arranged by the Contractor on his own at his cost

The Electricity connection for lighting, welding and other mechanical works to the extent available will be made available by the Employer within the Port area. Drawing of power lines/cables etc from the available source of supply of power to the actual work site, providing switches and making connections etc. shall be arranged by the Contractor at his cost. The temporary lines and connections by the Contractor shall be approved by the Engineer's representative before availing power. The Contractor shall provide EnergyMeter to read consumption in units.

The Contractor shall indicate his requirement of power to the Engineer within 15 days from the date of the letter of acceptance of the tender. The Contractor shall pay to the Employer, the power charges as per the prevailing Tariff schedule of Cochin Port Authority in force during the work of the Contractor. The Contractor shall also pay the connection and disconnection charges as applicable

37 Extension of the Intended Completion Date

The Engineer or his nominee shall extend the Intended Completion Date if a Variation is issued or if a force majeure event occurs which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work and which would cause the Contractor to incur additional cost.

The Engineer or his nominee shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Engineer or his nominee for a decision upon the effect of a Variation or any other events causing delay, beyond the control of the Contractor and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

Such Request for extension of time, to be eligible for consideration, shall be made by Contractor in writing within fourteen days of the happening of the event causing delay on the prescribed form. The Contractor may also, if practicable, indicate in such a request the period for which extension is desired.

38 Delays Ordered by the Engineer or his nominee

The Engineer or his nominee may instruct the Contractor to delay the start or progress of any activity within the Works

39 Early Warning

- a) The Contractor is to warn the Engineer or his nominee at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price or delay the execution of works. The Engineer or his nominee may require the Contractor to provide an estimate of the expected effect of the event or circumstance on the Contract Price and Completion Date. The estimate is to be provided by the Contractor as soon as reasonably possible.
- b) The Contractor shall cooperate with the Engineer or his nominee in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Engineer or his nominee.
- c) The Contractor shall immediately give notice in writing to the Engineer or his nominee upon happening of any event as detailed below if the work is delayed by:
 - i. Force majeure, or
 - ii. Abnormally bad weather, or
 - iii. Serious loss or damage by fire, or
 - iv. Civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or
 - v. Delay on the part of other Contractors or tradesmen engaged by Engineer in executing work not forming part of the Contract, or Any other cause which, in the absolute discretion of Engineer, is beyond the Contractor's control.

40 Liquidated Damages

40.1 In case of delay in completion of the contract, liquidated damages (L.D) may be levied at the rate of half per cent (½%) of the contract price per week of delay, subject to a maximum of 10 per cent of the contract price. The amount of Liquidated damages can be adjusted or set-off against any sum payable to the Contractor.

40.2 The Employer, if satisfied, that the works can be completed by the Contractor within a reasonable time after the specified time for completion, may allow further extension of time at its discretion with or without the levy of L.D. In the event of extension granted being with L.D, the Employer will be entitled without prejudice to any other right or remedy available in that behalf, to recover from the Contractor as agreed damages equivalent to half per cent (½%) of the contract value of the works for each week or part of the week subject to the ceiling defined Clause 40

40.3 The Employer, if not satisfied that the works can be completed by the Contractor, and in the event of failure on the part of the Contractor to complete work within further extension of time allowed as aforesaid, shall be entitled, without prejudice to any other right, or remedy available in that behalf, to rescind the contract.

40.4 The Employer, if not satisfied with the progress of the contract and in the event of failure of

the Contractor to recoup the delays in the mutually agreed time frame, shall be entitled to terminate the contract.

40.5 In the event of such termination of the contract the Employer shall be entitled to recover L.D. upto ten per cent (10%) of the contract value and forfeit the security deposit made by the Contractor besides getting the work completed by other means at the risk and cost of the Contractor.

41 Reduction of Liquidated Damages

If, before the Time for Completion of the whole of the Works or, if applicable, any Section, Taking Over Certificate has been issued for any part of the Works or of a Section, the liquidated damages for delay in completion of the remainder of the Works or of that section shall, for any period of delay after the date stated in such Taking Over Certificate, and in the absence of alternative provisions in the Contract, be reduced in the proportion which the value of the part so certified bears to the value of the whole of the Works or Section, as applicable. The provisions of this Sub-Clause shall only apply to the rate of liquidated damages and shall not affect the limit thereof.

SECTION IV SPECIAL CONDITIONS OF CONTRACT

- 1 Special conditions shall be read in conjunction with the general conditions of contract, specifications, drawings and any other document forming part of this contract wherever the context so requires.

Notwithstanding the Sub-division of the documents into these separate section and volume every part of each shall be deemed to be supplementary to and complementary of every other part and shall be read with and into the Contract so far as it may be practicable to do so.

Where any portion of the General Conditions of Contract is repugnant to or at variance with any provision of the Special Conditions, the provisions of the Special Conditions shall be deemed to over-ride the provisions of the General Conditions of Contract and shall to the extent of such repugnancy of variations, prevail.

2 **Measurements of Work Done:**

In addition to the Clauses in GCC- 'Computerised Measurement Book', measurement of the work can also be done as detailed below.

- 2.1 Executive Engineer (hereinafter called the Engineer's Nominee) shall, except as otherwise provided, ascertain and determine by measurement the value in accordance with the Contract of work done.
- 2.2 All measurement of all items having financial value shall be entered in Measurement Book and/or level field book so that a complete record is obtained of all works performed under the Contract.
- 2.3 All measurements and levels shall be taken jointly by the Engineer's Nominee or his authorised representative and by the Contractor or his authorised representative from time to time during the progress of the work and such measurements shall be signed and dated by the Engineer's Nominee and the Contractor or their representatives in token of their acceptance. If the Contractor objects to any of the measurements recorded, a note shall be made to that effect with reason and signed by both the parties.
- 2.4 Department shall not entertain any claim from Contractor for any loss or damages on this account. If the Contractor or his authorised representative does not remain present at the time of such measurements after the Contractor or his authorised representative has been given a notice in writing three (3) days in advance or fails to countersign or to record objection within a week from the date of the measurement, then such measurements recorded in his absence by the

Engineer's Nominee or his representative shall be deemed to be accepted by the Contractor.

- 2.5 The Contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording levels.
- 2.6 Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available then a mutually agreed method shall be followed.
- 2.7 The Contractor shall give not less than seven days' notice to the Engineer's Nominee or his authorised representative in charge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer's Nominee or his authorised representative in charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of measurements without such notice having been given or the Engineer's Nominee's consent being obtained in writing the same shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.
- 2.8 Engineer's Nominee or his authorised representative may cause either themselves or through another officer of the department to check the measurements recorded jointly or otherwise as aforesaid and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.
- 2.9 It is also a term of this Contract that recording of measurements of any item of work in the measurement book and/or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the Contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

3 PHASING OF WORKS

The work has to be carried out in phases as approved by COPA from time to time so that the total project work can progress smoothly with least obstruction to the operations and also works of other Contractors/ agencies..

4 SAMPLES

The Contractor shall require to provide to COPA samples of all the materials sufficiently in advance free of cost to obtain approval of COPA. Approved samples shall be retained by COPA until the completion of the work and all materials and workmanship incorporated in the work are to conform to the approved samples in all respects. Rejected materials shall be removed from the site immediately under the supervision of COPA.

5 SCHEDULE OF QUANTITIES (SOQ)

The quantities given in the tender SOQ are tentative and shall vary as per the site/ COPA requirements. Only required items & quantities are to be supplied/ installed. Contractor shall take detailed site measurements, for the items like Supply of HT & LT cables, Earth strips, piping, ducting etc., before placing purchase order / taking procurement action.

Contractor shall monitor the requirements of various items and shall report to COPA Engineer in charge with regard to deviations in the existing items and requirement of additional / extra items, if any, for taking necessary action.

6 GENERAL REQUIREMENTS OF COMPONENTS

6.1 Quality of materials

All materials and equipments supplied by the contractor shall be new. They shall be of such design, size and material as to satisfactorily function under the rated conditions of operation and to withstand the environmental conditions at site.

6.2 Inspection of material and Equipments

Materials to be used in the work shall be inspected by the engineer-in-charge. Such inspection will be of the following categories.

- a) Inspection of materials/Equipments to be witnessed at the Manufacturer's premises in accordance with relevant BTS/Agreement Inspection Procedure. The contractor has to give inspection call for each item at least three weeks in advance. The inspection call should include (i) Name of the item (ii) Reference number of schedule of quantity (iii) Details of approval of specification/drawings etc (iv)Address of the suppliers/sub suppliers and (v) Tentative date of inspection. No item/equipment should be supplied without giving inspection call. All arrangements for conducting the inspection and testing at the factory shall be responsibility of the contractor. Inspection / despatch clearance issued by Engineer in charge does not absolve the contractor for the responsibility to meet the tender specification. After the receipt of inspection call for an item from the contractor COPA will depute inspectors to suppliers works. In case the offered item is not ready or inspection could not be carried out due to lack of facilities for testing etc. at supplier's works, the inspector will return and the item has to be re-offered for inspection as per its readiness. In this case all the expenses (boarding, lodging,

travelling expenses etc.) of the inspector for the second inspection shall have to be borne by the contractor. In case any defect is noticed at a later stage the contractor has to rectify / replace the entire lot to meet specified standards.

- b) To receive materials at site with manufacturer's Test Certificate(s)
- c) To receive materials after physical inspection at site.

6.3 Ratings of components

All current carrying components in an installation shall be of appropriate ratings of voltage, current and frequency as required at the respective sections of the electrical installation in which they are used without their respective ratings being exceeded.

7 LIQUIDATED DAMAGES

For levying LD as per General Conditions of Contract, the employer is not required to have documentary evidence to quantify or prove the losses suffered by the Employer due to delay in completion of work by the contractor, as per agreement conditions.

8 CONTRACTOR TO SUBMIT PROGRAMME

After the acceptance of his Tender, the Contractor shall, within seven days, submit to the Engineer-in-Charge for his approval, a detailed programme taking into account the total time period stipulated in the contract showing the order, the procedure and method in which he proposes to carry out the works.

He shall furnish the particulars in writing of his arrangements of manpower, plant and machinery and all other resources owned and dedicated to this work. Cash flow during the execution of project for procurement of materials and for carrying out of the works including temporary works which the Contractor intends to construct shall also be furnished.

In support of this programme, the Contractor shall submit a work schedule in the form of a CPM/PERT Chart. The Engineer-in-Charge shall if necessary modify the programme submitted by the Contractor and approval shall be given by the Engineer-in-Charge indicating the major milestones. The programme approved by the Engineer-in-Charge shall be final and binding on the Contractor. The approval by the Engineer-in-Charge of such programme, or furnishing of such particulars shall not relieve the Contractor of any of his duties or responsibilities under the contract.

During the progress of work, the Contractor shall be required to furnish the resource mobilisation plan as required by Engineer-in-Charge to keep up the target date of completion.

This CPM/PERT programme will be required to be updated every month or more frequently as directed by the Engineer-in-Charge, based on the actual progress, resource mobilisation and

other field conditions actually prevailing.

9 Taxes and Duties

All duties, taxes and other levies payable by the bidder/Contractor under the Contract, or for any other cause as applicable on the last date of submission of Bid, shall be included in the rates, prices and the total Bid Price submitted by the Bidder. All investments, operating expenses, incidentals, overheads etc. as may be attendant upon execution and completion of works shall also be included in the rates, prices and total Bid price submitted by the bidder. However, such duties, taxes, levies etc. which is notified after the last date of submission of Bid and/ or any increase over the rate existing on the last date of submission of Bid shall be reimbursed by the company on production of documentary evidence in support of payment actually made to the concerned authorities. Similarly if there is any decrease in such duties, taxes and levies the same shall become recoverable from the contractor. The details of such duties, taxes and other levies along with rates shall be declared by the bidder.

- 9.1 The Contractor shall be solely responsible for all taxes that may be levied on the Contractor or on the earnings of any of his employees or personnel engaged by him and shall hold the Owner/Purchaser indemnified and harmless against any claims that may be against the Owner/Purchaser in this behalf. The Owner/Purchaser does not undertake any responsibility whatsoever regarding taxes under Indian Income Tax Act of the Contractor or his personnel. If it is obligatory under the provision under the Indian Income Tax deduction of Income Tax at source shall be done by the Owner/Purchaser.
- 9.2 Cess as per Building and other Construction Workers Welfare Cess Act (Act 28 of 1996) at the rate of one percent or at the rates prevailing in force at the time of payment of bills, of the cost of construction should be borne by the contractor and the same will be deducted from contractor's bills while making payment or when crediting amount to contractors account.
- 9.3 The item wise rate quoted by bidder shall be inclusive of all taxes, duties & levies. Payment of GST is the responsibility of bidder/contractor.
- 9.4 The rates and prices quoted by the Bidder shall be fixed for the duration of the contract and shall not be subject to variations on any account except to the extent variations allowed as per the conditions of the contract of the bidding document. The Company reserved the right to deduct / withheld any amount towards taxes, levies etc. and to deal with such amount in terms of the provisions of the Statute or in terms of the direction of any statutory authority and the Company shall only provide with certificate towards such deduction and shall not be responsible for any reason whatsoever.

10 AUTHORIZED PERSONAL

The Contractor shall engage an authorised agent experienced and qualified technical personnel for managing and supervising the work and shall see that all of them are always at the work spot during the working hours, personally checking all items of work. He shall take such orders as may be given to him by the Engineer-in-charge from time to time and shall be responsible to carry them out properly. In case contractor fails to provide an agent as per terms given above, COPA reserves the right to deduct a reasonable amount from the contractor's bill, subject to a maximum of Rs.25, 000/- per month, for every month of absence.

11 QUALITY PLAN FOR MANUFACTURE OF EQUIPMENT

The Quality plan for manufacture is a document, which presents in a tabular form, the Quality Control checks to be exercised by the Contractor during the various stages of manufacture

and dispatch in order to meet the requirements of this Contract. This plan shall detail the components manufactured, characteristics being controlled and acceptance norms for this characteristic and the agency responsible for performance and witnessing the checks.

After issuance of work order, the contractor shall submit to the Owner, the detailed quality plans to be followed during manufacture of all major equipment's. These quality plans shall be discussed mutually and updated by the Contractor taking into consideration the requirement of the Owner. The quality plan when approved shall form a part of the contract. This document shall be followed for inspection of the concerned equipment.

The details of the quality assurance/ quality checks envisaged by the Contractor during manufacturing of the equipment supplied by him or procured through his sub vendors/ sub-contractors shall be detailed out in the quality plans to be submitted by the Contractor. The contractor may also furnish any additional information regarding quality assurance/ quality checks in the additional sheets, if required. Quality plans for major equipment's manufactured by the Contractor or procured through his sub vendors/ sub-contractors shall be submitted during engineering. After approval of the Owner is accorded various quality plans shall be bound as a booklet and shall be submitted to the Owner as soon as possible. The contractor shall ensure that the approved quality plans are followed scrupulously by him and by his sub-vendors/ sub-contractors and manufacturing of the items covered under the quality plans shall be taken up only after Owner has approved the quality plan.

12 TEST REPORTS OF EQUIPMENTS

On completion of tests of equipment at manufacturer's works, the Contractor shall furnish four copies of test certificates to the Owner for approval and subsequent dispatch clearance. The test report shall invariably indicate identification data, including model no., sl. no. etc. of the equipment, method of application and duration of test along with test results. Only on approval of these test results by the Owner or Owner's representative, dispatch clearance will be issued for dispatch of material to site. Traceability certificate in original of testing equipment shall be submitted to the owner or his representative attending tests and a copy of the same shall be attached with the reports.

13 LIST OF APPROVED MAKES

It will be deemed that the contractor has priced the respective items on the basis of the approved makes. List of approved makes applicable for the contract is placed at respective volumes of technical specification.

- i) Where makes have not been indicated in the approved make list, such items shall be of ISI marked/reputed brands/UL certified. Reputed brand implies a brand which is supported by nationwide sales & service distributors/ dealers/network/centers. And all such items shall be got approved from Engineer-In-Charge.

- ii) Wherever “equivalent” mentioned against makes, suitable evidence shall be produced and get the prior approval of such makes from the Engineer-In-Charge.

14 TESTING AND MEASURING EQUIPMENTS

Equipment for measurement of work and testing the installation shall be procured by the Contractor for their use at their own cost. The same shall also be made available to COPA without any charges to COPA.

15 SITE MAINTENANCE DURING CONSTRUCTION

The Contractors shall time to time clear and remove all rubbish and obstructions from the site and the work area shall be kept clear and unobstructed at all times. Nothing extra shall be paid on this account.

16 CONTRACTOR’S STAFF AND LABOUR

- 16.1 Workers above 60 years of age and below 18 years of age shall not be deployed by the contractor. All labour, skilled or unskilled shall be provided by the contractor. Settling any dispute with the labour, labour union, any Outside union, subcontractor will be contractor’s responsibility. Loss of day in this regard should not be claimed for any hindrance at site. The workers engaged for works should have sufficient knowledge and experience in the respective fields. This shall be proved to the Engineer. The Owner may at any time request the contractor to remove from the Work/Site contractor’s / subcontractor's supervisor or any other authorized representative including any employee of the Contractor or his Sub-contractor(s) or any person(s) deployed by Contractor for professional incompetence or negligence or for being deployed for work for which he is not suited.
- 16.2 The Owner may at any time object to and require the Contractor/sub-contractor to remove forthwith from the Site a supervisor or any other authorized representative or employee of the Contractor's /sub-contractor(s) or any person(s), if in the opinion of the Owner, the person in question has misconducted himself or his deployment is otherwise considered undesirable by the Owner, the contractor/sub-contractor shall forthwith remove and shall not again deploy the person in question of the Work Site without the written consent of the Owner.
- 16.3 The workmen deployed by the contractor are strictly banned from use of any kind of Narcotics drugs / Alcohol / smoking etc. at site and any illegal activity by the work men should be reported to Engineer without delay and the contractor shall remove such persons from the work site forthwith.

17 STATUTORY APPROVALS

The scope of work also includes obtaining Initial and final approval/ NOC for the system from State Fire Department/concerned departments /local bodies/ other statutory bodies and liaison works with the department. All incidental expenses in this regard shall be borne by the

contractor however the statutory fees paid to the authorities will be reimbursed at actual on submission of documentation evidence.

- a) All the equipment to be supplied and works to be executed should conform to the Electrical Inspectorate/CEA Standards including all protection and metering accessories.
- b) Contractor has to obtain necessary scheme approval (NOC) for various facilities, if any, from the Electrical Inspectorate/CEA immediately after the award of work. Electrical works are included in different packages. However the scheme approval and final approval from KSEI shall be obtained by the electrical contractor having A Grade license issued by KSEI.
- c) All testing/calibration, etc. are to be carried out as per the requirements of statutory authorities. The tests/calibration certificates shall be submitted to COPA
- d) Letters/documents required for obtaining sanction/ approval from various bodies like Navy, Railway, National Highway, Corporation, Traffic Police, PTCC etc. for laying of cables along side roads, railway lines, crossing of roads/railway line etc. for facilitating the work will be issued by CoPA as per the intimation from the contractor, however the contractor shall co-ordinate/ Liaison with respective bodies for getting sanction etc.
- e) On completion of work, the contractor has to make arrangements for obtaining necessary safety / energisation certificate from Electrical Inspectorate / CEA by submitting necessary completion certificates, drawings, equipment details, load details, test results, etc. before energisation.
- f) All costs incurred in obtaining such approval/certificates are to be borne by the contractor. Statutory fees paid shall be reimbursed on presentation of documents.
- g) If the current rating of any of the switchgears including circuit breakers mentioned in the Schedule of requirements is not available or is not in conformation to the Inspectorate standards then it shall be rated to the nearest higher rating available with the current rating/fuse rating as specified.
- h) The Electrical works shall be carried out as per Central/State Electrical Inspectorate standards/specifications /guidelines and the contractor shall get the approval and safety certificate from the inspectorate after the completion of work and before energisation.
- i) The Contractor shall comply with proper and legal orders and directions of local or public authority or municipality and abide by their rules and regulations and pay all fees and incidental charges which may be liable during the contract period.

18 PERFORMANCE TESTING

18.1 At Manufacturers works

Before dispatching the equipment to site, the equipment will be inspected at the discretion of the COPA and tested for various parameters as detailed in the Technical Specifications, by the officials of COPA at the manufacturer's works and then cleared for shipment. The tenderer shall give adequate notice to enable COPA to plan their visit for such tests/inspection.

The inspection conducted will however, not in any way absolve the contractor of his responsibility for the continued performance of the system/components after erection & commissioning at the designated site during the period of defects liability.

18.2 At site

(a) On-site testing shall be conducted to ensure that the machine performance continue to be with the contracted performance parameters for which contractor shall make necessary provisions during installation which will enable testing of the machines.

(b) All the required equipments and measuring instruments for carrying out the testing have to be arranged by the contractor. The instruments used shall be calibrated to test and the valid certificate of calibration should be submitted to the COPA's Engineer in charge.

19 COMMISSIONING AND HANDING OVER OF EQUIPMENTS

19.1 DEFECTIVE WORKS

If the works or any portion thereof shall be damaged in any way excepting by the acts of the Purchaser, or if defects not readily detected by prior inspection shall develop before the final completion and acceptance of the whole work, the Contractor shall forthwith make good, without compensation, such damage or defects in a manner satisfactory to the Purchaser/Engineer. In no case shall defective or imperfect work be retained.

19.2 INITIAL TRIAL

On completion of works, erection of equipment, each item of the work / equipment as applicable shall be thoroughly cleaned and inspected jointly by the Owner / Consultant and Contractor for correctness and completeness of installation and acceptability for initial trials of the equipment by the Contractor & Owner. During the above joint walk down, the list of equipment deficiency & defects shall be prepared and for such a punch list, action shall be initiated by the Contractor in agreed time frame. The list of tests to be performed prior to initial trials shall be mutually agreed and included in the Field Quality Plan by Contractor. Prior to starting of initial trials all site tests, calibrations and parameter settings as indicated in the technical specification shall be carried out. The purpose of these trials is to ensure integrity of each individual equipment for its operation in the system for initial operation.

19.3 INITIAL OPERATION

After successful completion of works, initial trials of all the individual equipment, all equipment's shall be operated together as a system. The purpose of this initial operation is

to ensure integrity of all the sub-systems which compose the total system. Based on the observations made during initial operation, necessary corrections shall be effected in the equipment / systems to ensure proper integrated operation of the system. After satisfactory completion of initial operation for each equipment & sub-system, the complete equipment shall be considered ready for trial operation/performance guarantee testing. The Contractor has also to ensure that he trains Owner's Engineers at site dealing with this system in proper way. During commissioning of major equipment, contractor has to ensure the presence of commissioning Engineers of OEMs wherever required.

20 TRIAL OPERATION / PERFORMANCE GUARANTEE TEST

The method of trial operation, duration and loading conditions shall be discussed with the Engineer and a plan shall be prepared. During the period of trial operation, all the necessary adjustments in the plant/ equipments shall be made by the Contractor to establish that the complete system as a whole with all subsystems and with all standby equipment is ready for continuous operation. During these trials, all the standby equipments also shall be run alternatively and continuously to prove their performance.

A trial operation report comprising of dates and duration of trial, observations and recordings of various parameters to be measured shall be prepared by the Contractor and signed jointly by the Engineer and the Contractor. If the trial operation is not satisfactory, then based on the observations during trial operation, necessary modification/repairs to the plant/ equipment shall be carried out by the Contractor and on completion of such works, the trial operation shall be repeated again as per the relevant procedures.

21 FINAL ACCEPTANCE:

Final acceptance of the equipment/system is after obtaining statutory approvals from all statutory authorities as applicable as per Clause 22 of SCC.

23. HANDING OVER / CERTIFIED DATE OF COMPLETION

Up on the satisfactory commissioning of the entire system, the system shall be observed for 15 days. After this satisfactory trial period, the work shall be handed over officially and completion date recorded by Engineer-in-charge with all the prescribed formalities for handing over.

This date shall be reckoned, as the certified date of completion and the defects liability period shall commence from this date.

Until the handing over of the installation, the responsibility lies with the contractor for safety, upkeep etc.

22 COMPLETION CERTIFICATE

For all works completion certificate shall be submitted to COPA, after completion of work. It is the responsibility of the contractor to provide and make arrangement of all spares including consumables for carrying out periodical/preventive maintenance during warranty / defect liability period without any cost to COPA. However, the tenderer should furnish a list of spares, they plan to make available at site, to take care of warranty period. These spares shall be supplied along with the equipment. In case, any spares are required other than the listed spares, contractor will provide the same without any cost to COPA including customs duty.

23 PAYMENT TERMS

Bills shall be prepared and submitted by the Contractor. Joint measurements shall be taken continuously and need not be connected with billing stage. System of 4 copies of measurements, one each for Contractor, Employer and Engineer or his nominee, and signed by both Contractor and Engineer or his nominee shall be followed.

23.1 Payment for Electrical and Mechanical works shall be regulated as detailed below:

23.1.1. The Contractor shall be entitled upon certificates of the Engineer or his nominee to payments in accordance with the following provisions:

a) **For supply portion :** 75% of the value, as certified by the Engineer or his nominee, of the materials from time to time delivered on the site.

Balance 25% after completing the work in all respects, commissioning and handing over the installation to the Employer to the satisfaction of the Engineer and his nominee and his certification.

b) For erection portion :

i) 85% of the value as certified by the Engineer or his nominee, of the installation portion on completion of the erection work under contract, for which payments are claimed.

ii) Balance 15% along with other payments if any, after completing the work in all respects, commissioning and taking over the installation by the Employer to the satisfaction of the Engineer and his nominee and his certification.

23.1.2. For HT works, the work shall not be considered as completed until the installation is energized after obtaining approval certificate from Central Electrical Authority (CEA) and upon the issuance of taking over certificate by Engineer or his nominee. The final payment shall be made only after taking over the installation by the Employer.

23.1.3. Running Bills shall be paid as per contract condition within 21 days of date of submission of

bills in full shape by the Contractor on the jointly agreed quantities. However 50 % of the bill amount shall be paid within 10 days of submission of the bill, if on request by the Contractor. Balance amount of the verified bill shall be paid within 21 days of the submission of the bill.

- 23.1.4.** For final bill: The Final Bill shall be paid within 2 months on submission of CEA approval for energizing the installation if required, commissioning and taking over the installation. The Contractor shall submit final Bill within 10 days of issue of Taking over Certificate. Engineer or his nominee shall check the bill within 20 days after its receipt and return the bill to Contractor for corrections, if any. The Contractor should re-submit the bill with corrections within 15 days of its return by the Engineer or his nominee. The re-submitted bill shall be checked and paid within 15 days of its receipt.
- 23.2.** All the interim payments shall be regarded as payment by way of advances against final payment only and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be rejected, removed, taken away and reconstructed or re-erected. Any certificate given by the Engineer or his nominee relating to the work done or materials delivered forming part of such payment, may be modified or corrected by any subsequent such certificate(s) or by the final certificate and shall not by itself be conclusive evidence that any work or materials to which it relates is/are in accordance with the contract and specifications. Any such interim payment, or any part thereof shall not in any respect conclude, determine or affect in any way powers of the Engineer- or his nominee-charge under the contract or any of such payments be treated as final settlement and adjustment of accounts or in any way vary or affect the contract.
- 23.3.** Pending consideration of extension of date of completion interim payments shall continue to be made as herein provided, without prejudice to the right of the department to take action under the terms of this contract for delay in the completion of work, if the extension of date of completion is not granted by the competent authority.
- 23.4.** No further claims shall be made by the Contractor after submission of the final bill and these shall be deemed to have been waived and extinguished.
- 23.5.** If any amount is adjudged by a competent court for payment to the contractor by the employer, further interest on the amounts adjudicated shall be six per cent, per annum.
- 23.6.** Items of the Works for which no rate or price has been entered in will not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.
- 23.7.** All payments to the Contractor under the contract shall unless otherwise stated elsewhere be made to the Contractor in Indian currency through e- payments through designated Bank.

24 MEASUREMENTS

The quantities set out in the Schedule of quantities (Price Bid) are the estimated quantities of the work, but they are not to be taken as the actual and exact quantities of the Work to be executed by the Contractor in fulfillment of his obligations under the Contract. The payment shall be made for actual measured quantity both for supply and installation. In this case the quantity shall be taken after installation, i.e. only installed portion of the work after completing the work would be measured. Scrap and balance materials would not be measured and hence no payment would be made for the same. It may be noted that payment against the supply of items, in any case shall not exceed the final measured quantity. However Electrical works related to mechanical works is treated as a package and the amount is on lump sum basis for the successful completion of the work. Additional payment, if any released during the supply of items more than the final measured quantity, corresponding payment shall be adjusted later, while processing subsequent bills after the final measurement.

25 PARTIAL TAKING OVER

COPA reserves the right to take over a portion of the work which is completed in all respects before the handing over of the entire work if the remaining portion of the work is getting delayed. The operation of such completed works taken over by COPA, during the defect liability period, shall be under the scope of the contractor.

26 ACCOMMODATION/SITE OFFICE

COPA will not provide any quarters for the accommodation of contractor's personnel. The contractor shall make his own arrangements at his cost for accommodation/medical aid/treatment for staff and workers engaged by him on this project, and the contractor should ensure water supply, sanitation, access roads, electrification and general cleanliness of his camps, as required by labour laws in force. All arrangements regarding sanitation, water supply, electric supply and cleanliness shall be tidy and workman like and shall be got approved by the Engineer-in-Charge prior to the construction of the camps.

Warehouse, shed, shop and office facilities as required for the execution of the work shall be provided by him at his own expense, and shall be approved by the COPA. After the work is over, all these temporary facilities shall be removed by the contractor at his own expense to the satisfaction of Engineer-in-Charge/COPA within 30 days from the date of completion of work.

27 WATER AND ELECTRIC SUPPLY

Electric power required for the work can be supplied by the department from the nearest existing line of the Port Trust at prevailing rates as per the prevailing term and conditions of Cochin Port which may be amended time to time. If electric power is supplied by the department, the Contractor shall make payment of monthly electricity bills. The cost of drawing temporary lines/ cables/ providing switches and making connection and metering arrangements etc, shall be borne by the

Contractor. If there is any disruption in the power supply due to supply failure/ restrictions imposed by the Kerala State Electricity Board, the department shall not be held responsible and the Contractor has to make suitable alternative arrangements at their cost.

The COPA will not be responsible for the supply of water to the Contractor.

28 PRICES

The rate quoted for all items (Imported and Indigenous) shall be in Indian Rupees only. Price shall be Inclusive of all taxes & duties, labour, tools & plants, packing, freight/ transportation & insurance up to the site, loading, unloading, fee (s) for testing, inspection, documents etc.

29 GUARANTEE / WARRANTY

All the items of equipment and installations shall be guaranteed to be free from defective workmanship or materials for a period of 1 year from the date of handing over. The Contractor at his own cost shall rectify any defect /replace material that may appear during the period.

During this period, the contractor shall without any extra cost, carry out all routine and special maintenance of the works executed by him and attend to any difficulties and defects that may arise in the day to day operation of the system within 24 hrs. Of complaint reported by COPA.

The Contractor shall guarantee that all material, machinery, Consumables and components, supplied, fabricated, designed and installed by him shall be free from defects due to faulty material and/or workmanship and that the system shall perform satisfactorily, and the efficiency of the system and all the components shall not be less than the values laid down in the specifications and the capacities shall be at least equal to those specified. During the guarantee period any or all components found to be defective shall be replaced or repaired free of charge and shortcoming found in the system as specified shall be removed at no extra cost. The Contractor shall provide the necessary personnel and tools for fulfilling the guarantee. If the defects are not remedied within a reasonable time, COPA may proceed to get the defects remedied at the Contractor's risk & expenses without prejudices to his right. The Contractor shall without any cost to the Employer carry out during the guarantee period all routine and special maintenance of the system and attend to any defects that may arise in the operation of the system.

The Contractor shall hold himself fully responsible for reinstallation or replace free of cost to COPA during the defect liability period as stipulated hereunder.

- a) Any defective material supplied by the Contractor or defective workmanship of the Contractor.
- b) Any material supplied by COPA which is proved to be damaged or destroyed as a result of defective workmanship by the Contractor.

24. ARRANGEMENT OF MATERIALS

All the materials required for this work should conform to relevant BIS Specifications unless otherwise specified. The copies of Purchase Vouchers & Gate Passes should be produced along with the materials. The test certificates, Routine test certificates and acceptance test certificates are also to be submitted.

25. STORAGE OF MATERIALS

The storage and custody of materials brought to site is the full responsibility of the contractor. Necessary store rooms if necessary should be constructed by the contractor. The land required for stores will be provided by the COPA free of cost. The store should have double lock arrangement with one key with the COPA Engineer-in-charge and the other with the Contractor. **All materials supplied by the contractor should be covered under storage insurance.**

26. PROCUREMENT OF MATERIALS

Contractor shall make his own arrangements for the timely procurement of all materials required for the work. Status of procurement of every item required for the project is to be submitted every week. In case materials are not supplied in time, Engineer in charge will arrange for procurement directly from the supplier and the expenses incurred will be deducted from the contractor's bill. Immediately on award of contract, the contractor has to submit the list of makes of item, which he is planning to procure for the project and approval has to be obtained from the engineer in charge. After the make approval, detailed specification/drawings/ test reports etc of every item has to be submitted.

27. BYE-LAWS

a) The contractor shall comply with all bye-laws and regulations of local and statutory authorities having jurisdiction over the works and shall be responsible for obtaining prior approval, if any, and payment of all fees and other charges, giving and receiving of all necessary notices and keeping the Engineer-in-Charge informed of the said compliance with the bye-laws, payments made, notices issued and received.

The Contractor shall indemnify COPA against all claims in respect of royalties, patent rights, design trademarks of name or other protected rights in respect of any plant, machine, work or materials used for or in connection with the work or temporary works and from and against all claims, demands proceedings, costs, charges and expenses whatsoever in respect of or in relation thereto. The Contractor shall defend all actions arising from such claims and shall himself pay all royalties, license fees, damages, costs and charges of all and every sort that may be legally incurred in respect thereof.

b) The Electrical works shall be carried out as per the local electrical inspectorate standards/specifications/guide lines and the contractor shall get the approval and safety certificate from the inspectorate after the completion of work and before energisation.

c) The Contractor shall comply with proper and legal orders and directions of the local or public authority or municipality and abide by their rules and regulations and pay all fees and charges which he may be liable.

d) The contractor should liaise with local authorities to ascertain the underground cables, pipes, ducts etc., if any, in the areas of construction site and furnish to the Engineer-in-Charge the information and precautions that are being taken to avoid damages.

e) The work shall be carried out without infringing on any of the local Municipal Bye-Laws.

28. SUBCONTRACTS

The Contractor shall be fully responsible to COPA for the acts and omissions of his subcontractors and of persons directly or indirectly employed by them, as he is for the acts and omissions of persons employed by him.

Nothing contained in the contractual documents shall create any contractual relation between any subcontractor and the COPA.

In case of specialized nature of work requiring very high quality stipulations, such works shall not be subcontracted unless:-

- a) The subcontractor firm has sufficient expertise, equipment/plant back up and experience in the similar nature of work.
- b) The subcontractor firm has sufficient financial background. The firm should have atleast 20% of the value of work to be sublet as net assets.
- c) The subcontractor firm has a track record of completing the works on time and to the quality stipulations.
- d) The subcontractor firm has not run into litigation/ arbitration in the past three years with the CoPAs.

In no event can any delay or unsatisfactory work conducted by the subcontractor can either be accepted or can be contractor adduce such delay or unsatisfactory work attributable to subletting of work. The main contractor shall be fully responsible for the contract and Management of subcontractors.

30 CONFORMITY TO RULES AND REGULATIONS

30.1 The work shall be carried out in the best workmanlike manner in conformity with this specification, the relevant specification/codes of practice of the Bureau of Indian Standards or IEC recommendations (Except where specified otherwise) and other relevant Indian/International standards with latest amendments, approved drawings and the instructions issued by the Engineer-in-charge or his authorised representative, from time to time. Equipment meeting any other authoritative standard, which ensures an equal or better quality than the above standards, will also be acceptable.

30.2 In addition to the standards, all works shall also conform to the requirements of the followings:

- a) All Electrical works shall be carried out in accordance with the provisions of Indian Electricity Act- 2003, Indian Electricity Rules 1956 amended up to date (Date of call of tender unless specified otherwise)
- b) The works shall also conform to relevant Bureau of Indian Standards' Codes of practice (COP) for the type of work involved.
- c) Materials to be used in work shall be ISI marked/UL certified wherever applicable.
- d) In all electrical installation works, relevant Safety codes of practices shall be followed.
- e) Fire Insurance Regulations.

- f) Regulations laid down by the Chief Electrical Inspector of the State Electrical Inspectorate/State Electricity Board/ Central Electrical Authority or any other agencies concerned.
- g) Regulations laid down by Fire & Rescue Services and National Building Code.
- h) Any other regulations laid down by the local authorities.
- i) Installation & operating manuals of original manufacturers of equipment.

31 CONTRACT DOCUMENTS

The Contract document is confidential and must strictly be confined to the contractor's own use (except so far as confidential disclosure to sub-contractors or suppliers, if necessary) and to the purpose of the contract.

32 PLAN OF OPERATION AND CO-ORDINATION

For execution of the work under the contract the contractor shall be required to co-ordinate his work with that of other contractors performing works at the site and also in the same areas. So far as practicable all contractors shall have equal rights to use all roads, ground and facilities made available for the joint use of the contractors. The contractor shall permit such works to be carried out without any hindrance and fully co-ordinate his activities with other agencies. No compensation or claim for such contingencies shall be entertained.

33 SAFETY

The contractor shall take necessary precautions to ensure safety of his crew, materials, equipment and the works during the period of the contract. No claim from the contractor for loss of or damage to equipment, materials, crew or the works during the course of the work due to natural causes like cyclones, gales, floods, rains or other cause or combination of causes will be entertained by COPA. The contractor shall be fully liable to compensate COPA for any loss or damage to works till the time of taking over of the work by COPA.

34 ASSISTANCE FOR TAKING MEASUREMENTS

The contractor shall provide necessary labour and assistance to the Engineer-in-charge for checking layout, alignments, levels and other survey works connected with the execution of work and also for taking measurement for finalised works at no extra cost.

35 SCHEDULE OF QUANTITIES AND RATES

The schedule of quantities to be read in conjunction with these Particular Specifications, special conditions, general conditions of contract, specifications, drawings documents forming part of this contract. All corrections in the tender schedule shall be duly attested by the dated initials of the tenderer. Corrections which are not attested may entail the rejection of the tender. The tender document should be signed and returned without detaching any part of the document.

Rates shall include labour, materials, tools, plants, appliances, transport, equipment, taxes, duties, water and power supply, metering and consumption charges, temporary plumbing, cost of cistern sheds for materials, contractor's supervision, overheads, profits, general risks or liabilities and all that is necessary for the satisfactory completion of the job. The rates shall be firm and shall not be subject to exchange variations, labour conditions or any conditions whatsoever other than what is approved in the contract.

36 SITE INVESTIGATION

The contractor acknowledges that he has satisfied himself as to the nature and location of the work, the general and local conditions, particularly those bearing upon transportation, disposal, handling and storage of materials, availability of labour, water, electric power, roads and uncertainties of weather, or similar physical conditions of the site, the conformation and conditions of the ground, the character, the quality and quantities of surface and sub-surface materials to be encountered, including the subsoil water levels, the character of equipment facilities needed preliminary to and during the progress of the work, and all other matters upon which information is reasonably obtainable and which can in any way affect the work or his cost thereof under this contract. Any failure of the contractor to acquaint himself with all the available information concerning these conditions will not relieve him from responsibility for not estimating properly the difficulty or cost of successfully performing the work. Non-familiarity with the site conditions will not be considered a reason either for extra claims or for not carrying out the work in strict conformity with drawings and specifications. The contractor shall note that if any clarifications regarding specifications, conditions of contract, schedule of quantities, scope of work, etc. are required, he should contact the Engineer-in-Charge, COPA. No claim on account of ambiguity in any respect will be entertained.

37 DRAINAGE ARRANGEMENTS

The contractor shall control the grading in the vicinity of the buildings and trenches, so that surface water is prevented from running into excavated areas. The contractor shall also be responsible to see that no area around his works becomes flooded during the rainy season because of his piled up material, etc. and subsequently flood other buildings. At the discretion of the Engineer-in-charge the contractor shall take steps to prevent flooding. It shall be the contractor's responsibility to keep areas around his work dry. The cost of repairing flood damage shall be the sole responsibility of the contractor.

38 TESTING AND MEASURING EQUIPMENTS

Equipment for measurement of work and testing the installation shall be procured by the Contractor for their use at their own cost. The same shall also be made available to the Engineer-in-charge

without any charges to COPA. Equipment for measurement shall be made available at site for use of Engineer-in- Charge and shall be periodically calibrated.

39 SECURITY RULES

The contractor shall follow all Security rules existing in the Port premises and strictly adhered to security norms. The Port security is under CISF and entry to the restricted area will be subject to security checks and other security procedures existing in working Ports. Only selected persons will be permitted to enter to restricted areas under special permission as required for the completion of the project.

The contractor shall also follow at site all Security rules as may be framed by the COPA from time to time regarding removal of materials from site, issue of identity cards, control of entry of personnel and all similar matters. The contractor and his personnel shall abide by all security measures imposed by the Managing Director or his duly authorised representative from time to time.

The contractor shall take ultimate care while working in a running port and minimize nuisance to the public. All the work sites shall be separated by providing temporary partitions as directed by Engineer-in-charge. Fencing, partitions, signages shall be provided as per directions of Engineer-in-charge.

SECTION V

TECHNICAL SPECIFICATION

1 SCOPE OF WORK

The proposal is for RETROFITTING AND REPLACEMENT OF OLD FEEDER PILLARS, LT Panels & Junction Boxes at various locations in Willingdon Island

The scope of work includes the following works:

- a) Supply, Installation, Testing & Commissioning of 12 Nos LT Panels/Feeder Pillars and 4 Nos Outdoor Junction boxes at various locations
- b) Retrofitting of MCCBs in the existing panels at various locations
- c) Providing Roofing and Housing with foundation , wire mesh fencing , GI pipes/ angles , gate and lock etc. for the LT Panels .
- d) Supplying and making end termination for various sizes of LT cables.
- e) Dismantling Existing damaged Panels/ Feeder Pillars/ Jn. Boxes and handing over the same to T &R Section of CoPA in Willingdon Island
- f) Earthing the system
- g) Commissioning

The bidder shall visit the site, ascertain the site conditions and scope before bidding.

2 GENERAL TECHNICAL PARTICULARS.

2.1 General conditions

In addition to the above, the scope intends to cover but not restrict to the following activities, services and works.

- a) Complete design and engineering of all the systems, sub-systems, equipment, material and services.
- b) Providing engineering data, drawing and O&M manuals for Employer's review, approval and records.
- c) Supply, testing, packing transportation and insurance the equipments from the manufacturer's work to the site.
- d) Receipt, storage, insurance, preservation and conservation of equipment at the site.
- e) Fabrication, pre-assembly (if any), erection, testing and putting into satisfactory operation of all the equipment/ material including statutory clearances & successful commissioning.
- f) In addition to the requirements indicated in Technical Specifications, all the requirements as stated in relevant regulations stipulated for successful commissioning of the installation also be considered as a part of this specification and Contractor is bound for compliance the same.
- g) The Contractor shall be responsible for providing all material, equipment and services specified or otherwise which are required to fulfill the intent of ensuring operability, maintainability and the reliability of the complete work covered under this specification.
- h) For individual equipment specifications reference shall be made to the relevant Technical Specification of the equipment as per contract condition.
- i) The Contractor shall be responsible for the overall management and supervision of works. He shall provide experienced, skilled, knowledgeable and competent personnel for all phases of the project, so as to provide the Employer with a high quality system.
- j) A project execution schedule called Master Network (MNW) in the form of PERT / Gant chart/ network and based on 'Work break down structure' shall be prepared by the Contractor for Employer's approval. The MNW shall identify milestones of key events for each work/ component in the areas of engineering, procurement, manufacture, dispatch, erection and commissioning.

3 PROJECT MANAGEMENT & SITE SUPERVISION

3.1 Testing and commissioning

The scope includes testing and commissioning of all equipment, sub-systems and systems of the project and putting them into successful commercial operation. The scope shall include but not limited to the requirements given elsewhere in the specification. The Contractor shall be responsible to provide all necessary testing and commissioning personal, tools and plant, test equipment, etc.

The Contractor shall identify all interface issues with Employer and other agencies, and shall be responsible for each interfacing, coordination and exchange of all necessary information.

The Contractor shall submit to the Employer all drawings for review. He shall list out the detailed requirements of interface between Contractor's work and the material and services to be supplied by Employer.

The interpretation of the Employer in respect of the scope, details and services to be performed by the Contractor shall be binding, unless specifically clarified otherwise by the Employer in writing before the award of the contract.

Failure of any equipment to meet the specified requirements of tests carried out at works or at site shall be sufficient cause for rejection of the equipment. Rejection of any equipment will not be held as a valid reason for delay in the completion of the works as per schedule. Contractor shall be responsible for removing all deficiencies and supplying the equipment that meet the requirement after furnishing of necessary fresh type test report, as per relevant ISS Standard from NABL Accredited Laboratory.

3.2 COMPLIANCE OF ELECTRICITY ACT, REGULATIONS, ETC.

Contractor is required to follow statutory regulations stipulated in Electricity Act 2003, Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations 2022, Central Electricity Authority(Measures relating to Safety and Electric Supply) Regulations, 2023.and Standards as per Kerala Electrical Inspectorate.

The Contractor shall comply with all the statutory rules and regulations prevailing in the state of Kerala including those related to safety of equipment and human beings.

The successful Contractor (individual) or any of the partner of joint venture who has qualified, should obtain “B” class electrical license from Electrical inspectorate of Govt. of Kerala/GoI/ any other state/ Union territory etc, before award of contract and to be kept valid till such time all the erected work as per scope of the award is taken over by the Employer.

The Contractor shall do complete coordination with all local and statutory agencies for execution of complete works including obtaining clearance for energizing of the HT system upon completion of entire works.

The Contractor shall obtain approvals & clearances and right of way from all agencies involved. All cable routes shall generally be routed through public land/ along the road.

The Contractor shall be responsible for transportation to site all the materials to be provided by the Contractor as well as proper storage and preservation of the same at his own cost, till such time the erected installation is taken over by the Employer.

3.3 METHODOLOGY OF PROCUREMENT

All equipments/material shall be sourced from reputed manufacturers only. All equipment/material offered shall be of reputed manufacturers only as per the list of approved make mentioned in the tender document and who have designed, manufactured, completely tested for relevant Indian Standards and supplied the equipment/ material to various State Electricity Boards or other reputed utilities which are in trouble free services at least two different locations for a period of more than two (2) years as on the date of bid opening.

3.4 QUALITY ASSURANCE, INSPECTION AND TESTS

The Contractor shall offer proven and type tested equipment for the project. The type test Certificates shall be complete as per the relevant I.S., carried out by NABL, CPRI or any other statutory bodies responsible for testing of equipment and it shall valid on as on the date of installation.

If required, Sub-vender's credentials, copies of valid BIS Certificate past supply & performance certificates as per requirement will also be required for sub-vender's approval, if not already approved for a specific item.

In case during post award detail engineering stage, if any equipment is found to be not type tested or partially type tested, as per I.S., the Contractor shall carry out complete type test for the items at his own cost.

The Contractor shall arrange all type, routine and acceptance tests at manufacturer's works as per approved Material Quality Programme with CoPA's officer. Any expenditure in connection with deputing the representative to the manufacturer's work site will be borne by CoPA. The Contractor shall arrange the inspection program in consultation with engineer-in-charge to give sufficient advance intimation of the manufacturing and testing schedules to facilitate timely inspection of the equipments by CoPA. Fake inspection call will attract penalty as per the discretion of the employer.

The Contractor shall provide one set of tests reports in original to Employer on successful completion of the tests.

4 GENERAL TECHNICAL SPECIFICATION -SUPPLY OF MATERIALS

All materials required to complete the work as per given specifications & drawings etc, must be manufactured and supplied using fresh raw materials. Re-moulded, re-circulated materials are not acceptable. The procurement of materials must be made directly from manufacturer or through authorized dealer/distributors. Documentary evidences to this effect are to be made available to the engineer-in-charge for necessary checks / verification of source of supply of materials. Second hand materials/ partial used materials/ used materials would not be acceptable. The offer should be as per Technical Specification without any deviation. But any deviation felt necessary to improve performance, efficiency and utility of equipment must be mentioned in the Deviation Schedule with reasons duly supported by documentary evidences during pre bid meeting. Such deviations suggested may or may not be accepted by the employer. Any deviations projected after the pre bid meeting shall not be entertained at any cost.

4.1 Junction Boxes, 250A / 400 A Feeder Pillars & 800A etc. LT panels

4.1.1 General Specification

Normal voltage - 415 V, +/- 5%

Frequency - 50 cycles/sec

Bus bars - Copper with current carrying capacity of 1.2A /Sq mm for phase and for neutral half of main bus, Earth as per standards

- a. The outgoing cables shall be connected to the bus bars directly and hence sufficient working space shall be provided between each phase and to body.
- b. The Junction Boxes, Feeder Pillars and Panels shall be type tested as per CPRI for the current rating specified. The manufactures shall be ISO 9001-2008 certified and CPRI approved.
- c. The material shall be CRCA sheets
- d. The cable entry shall be through from top or bottom as per the site locations, this has to be considered while making of drawing of them. Sufficient knock outs to be provided.

- e. The Junction Boxes, Feeder Pillars and Panels shall accommodate 1.1KV XLPE cable ranging from 3.5 C x 400 Sq. mm to 3.5C x 16 Sq. mm. Hence the size of the MSB shall be fabricated accordingly.
- f. The bus bar shall be supported with FRP/SMC support and shall be in single front execution only.
- g. The general arrangement drawing and SLD of the Junction Boxes, Feeder Pillars and Panels shall be got approved by engineer in charge before its fabrication.
- h. The Junction Boxes, Feeder Pillars and Panels shall be made of CRCA sheet steel clad with the frame fabricated out of 14SWG cold rolled sheet steel and single/double door entry shall be provided depends on the convenience. For the Load bearing membrane the angle supports shall be provided with suitable sizes
- i. All metal sheets shall undergo 9 tank metal treatment process. The finish of Junction Boxes, Feeder Pillars and Panels shall be Siemens epoxygrey Colour. All joints and connection shall be made of galvanized. Zinc passivated or cadmium plated high quality steel bolts, nuts and washers secured against loosening.
- j. The decision of Engineer in charge shall be final regarding the dimensions of the DB and the SLD, GA diagram etc of DB shall be got approved before its fabrication.
- k. Panel has to be type tested as per IEC61439 , 1&2 Edition-III

4.1.2 All ACB/ MCCB above 250A shall be Microprocessor Controlled with LSIG protection if not mention separately in the details given in tender.

4.1.3 800A ACB Panel -1 (Location: Leasing Area)

Incomer - 800 A, 4 Pole Fixed type ACB, 50 KA, Microprocessor;
 Outgoing: 400 A, 4 Pole MCCB, 36 KA, Microprocessor -2; 250 A 4 Pole MCCB, 36 KA, Microprocessor -2; 200 A, 4 Pole MCCB, 36 KA Adj. Thermal, Adj. Magnetic -1; 125 A, 4 Pole MCCB, 25 KA Adj. Thermal -1, Spreader Links for all MCCB s, Voltmeter & Ammeter with Selector Switches etc.

4.1.4 800A ACB Panel -2 (Location: Leasing Area)

Incomer - 800 A, 4 Pole Fixed type ACB, 50 KA, Microprocessor;
 Outgoing: 400 A, 4 Pole MCCB, 36 KA, Microprocessor -2;
 250 A 4 Pole MCCB, 36 KA, Microprocessor -2;
 200 A, 4 Pole MCCB, 36 KA Adj. Thermal, Adj. Magnetic -1;
 125 A, 4 Pole MCCB, 25 KA Adj. Thermal -1,
 Spreader Links for all MCCB s , Voltmeter & Ammeter with Selector Switches etc.

4.1.5 400 A Feeder Pillar 1 (Location: Opposite GAC Shipping, Subr. Road)

Incomer: 400 A 4 Pole MCCB, 36 KA Microprocessor;
 Outgoing: 200 A 4 Pole MCCB,36 KA Adj. Thermal -3;
 125 A 4 Pole MCCB,25 KA Adj. Thermal -2;
 63 A 4 Pole MCCB,25 KA Adj. Thermal-3;
 32 A MCB, C Curve -1 ,
 Spreader Links for all MCCB s , RYB Indicators etc.

4.1.6 400 A Feeder Pillar 2 (Location:Near GAC Shipping, Subr. Road)

Incomer: 400 A 4 Pole MCCB, 36 KA Microprocessor;
 Outgoing: 250 A ,4 Pole MCCB,36 KA Adj. Thermal -1;
 200 A,4 Pole MCCB,36 KA Adj. Thermal -2;

125 A , 4 Pole MCCB,25 KA Adj. Thermal -2;
63 A, 4 Pole MCCB,25 KA Adj. Thermal -2;
32 A, MCB C Curve-1,
Spreader Links for all MCCB s , RYB Indicators etc.

4.1.7 400 A Feeder Pillar 3 (Location: Feeder Pillar ATS, M/Halt)

Incomer: 400A 4 Pole MCCB, 36 KA Microprocessor;
Outgoing: 250 A, 36 KA Adj. Thermal -1;
100 A, 4 Pole MCCB,36 KA Adj. Thermal -2;
63 A, 4 Pole MCCB, 25 KA Adj. Thermal -4,
Spreader Links for all MCCB s , RYB Indicators etc.

4.1.8 400 A Feeder Pillar 4 (Location: Near GBL, M/Halt)

Incomer 1 - 400 A 4 Pole MCCB, 36 KA Adj. Thermal, Adj. Magnetic;
Incomer 2- 400 A 4 Pole MCCB, 36 KA Adj. Thermal, Adj. Magnetic;
Out going: 250 A 4 Pole MCCB 36 KA Microprocessor -1;
200 A 4 Pole MCCB 36 KA Adj. Thermal, Adj. Magnetic -1;
200 A , 4 Pole MCCB,36 KA Adj. Thermal -1;
Pole 63 A MCB, C Curve -1,
Spreader Links for all MCCB s , RYB Indicators etc.

4.1.9 400 A Feeder Pillar 5 (Location: STB)

Incomer: 400 A 4 Pole MCCB, 36 KA Microprocessor;
Outgoing: 200 A, 4 Pole MCCB, 36 KA Adj. Thermal, Adj. Magnetic -1;
100 A ,4 Pole MCCB,36 KA Adj. Thermal -1;
Motor Protection Circuit Breaker (MPCB) 100 A ,4 Pole,36 KA -3;
4 Pole 63 A MCB, C Curve -5
Spreader Links for all MCCB s , RYB Indicators etc.

4.1.10 250 A Feeder Pillar 1 (Location: Achuthan Pillai Compound)

Incomer: 250 A, 4 Pole MCCB,36 KA Adj. Thermal, Adj. Magnetic;
Outgoing: 200 A, 4 Pole MCCB,25 KA Adj. Thermal -1;
125 A, 4 Pole MCCB,25 KA Adj. Thermal-1,
Spreader Links for all MCCB s , RYB Indicators etc.

4.1.11 250 A Feeder Pillar 2 (Location: CISF quarters Complex)

Incomer: 250 A, 4 Pole MCCB,36 KA Adj. Thermal, Adj. Magnetic ;
Outgoing: 125 A, 4 Pole MCCB,25 KA Adj. Thermal -1;
100 A, 4 Pole MCCB,25 KA Adj. Thermal -1;
63 A, 4 Pole MCCB,25 KA Adj. Thermal -3;
32 A, MCB C Curve -1,
Spreader Links for all MCCB s , RYB Indicators etc.

4.1.12 250 A Feeder Pillar 3 (Location: CISF Complex Pump)

Incomer - 250 A, 4 Pole MCCB,36 KA Adj. Thermal, Adj. Magnetic;
Outgoing: 100 A, 4 Pole MCCB,25 KA Adj. Thermal;
63 A -1; 4 Pole MCCB,25 KA Adj. Thermal -2;
32A, MCB C-Curve -2,
Spreader Links for all MCCB s , RYB Indicators etc.

4.1.13 250 A Feeder Pillar 4 (Location: Parking Yard A2 Area)

Incomer: 250A MCCB 36 KA Adj. Thermal, Adj. Magnetic;
Outgoing: 100 A 4 Pole MCCB, 25 KA Adj. Thermal -2;
63 A 4 Pole MCCB, Adj. Thermal -4,
Spreader Links for all MCCB s , RYB Indicators etc.

4.1.14 250 A Feeder Pillar 5 (Location: NTB)

Incomer: 250 A, 4 Pole MCCB, 36 KA Adj. Thermal, Adj. Magnetic;
Outgoing: 125 A, 4 Pole MCCB, 25 KA Adj. Thermal -1;
4 Pole 63 A MCB, C Curve -7
Spreader Links for all MCCB s , RYB Indicators etc.

4.1.15 Cable Junction Boxes – 4 nos. (Locations: Subr. Road, A2 Area)

Capacity: 400 A, RYB Indicators

4.1.16. Physical Layout

Individual MCCBs, horizontal and bus bars shall be separated from each other by required spacing, sleeves etc. The panel shall be done under/up entry of cables as per site requirements. The panel shall be in single front execution only. The general arrangement drawing and SLD of the feeder pillars shall be got approved by engineer in charge before its fabrication.

4.1.17. Busbars

The bus bars shall be of high conductivity copper strip of specified capacity (1.2 Ampere/Sq.mm) having uniform current rating throughout its length. Only SMC or FRP supports shall be used for bus supports. All bus bars shall be colour-coded using PVC sleeves and designed to withstand specified short circuit current for 1 second.

4.1.18. Earth Bus

Earth bus shall be provided throughout the length of the switchboard and panel with provision for interconnection to earthing grid. Earth bus shall be connected to the proposed earth pits. All non-current carrying metallic parts of the mounted equipment shall be earthed. Doors and movable parts shall be earthed using braided tinned copper connection.

4.2 MOULDED CASE CIRCUIT BREAKERS (MCCBS)

Moulded case circuit breaker shall be of current limiting type and preferably double break. MCCB shall conform to IS 13947-1/IEC 947-1 for general rules and IS 13947-2/IEC 947-2 for circuit breakers in all respects. The MCCB case & cover shall be made of high strength heat resistant and flame retardant thermosetting insulating material. The operating handle shall be quick make, quick break trip free type. The operating handle shall have suitable 'ON', 'OFF' indicators. In order to ensure suitability for isolation complying with IS13947-2/IEC947-2, the operating mechanism shall be designed such that the toggle or handle can only be in 'OFF' position. The MCCB unless otherwise specified shall have thermal-magnetic trip unit with adjustable overload protection from 80% to 100% of nominal current (In) and fixed magnetic protection. The MCCB shall be possible to fully co-ordinate the over-load & short-circuit tripping of the circuit breakers with the upstream and downstream circuit breakers to provide Total Discrimination

4.2.1 Material

The DB's are to be fabricated out of 14 SWG CRCA sheet / IK09 for double door suitable for all weather operation. Current carrying parts are to be made of electrolytic grade copper and are to be rated for the duly intended. Powder coated ensuring rust prevention and scratch resistant. DBs shall be painted epoxy gray.

4.2.2 Accessories

Following accessories are to be provided:-

- a) Copper bus bars of rated current capacity per phase.
- b) Special brass terminals to ensure perfect connections of incoming cable with the bus bars, colour coded interconnecting wire set.
- c) Earth bars for firm earthing and for facilitating individual earthings for each outgoing terminal, door earthing etc. Specified capacity neutral link bus bars shall be provided.
- d) Suitable gaskets to ensure weather proof conditions
- e) Sufficient number of blanking plates.
- f) All MCB not specified otherwise shall be C curve with 10kA or above as per required breaking capacity.

The MCCB Shall Conform to IS/IEC 60947-2&IEC 60947-2.

- a) Adj. OC - 0.4-1.0 XIn.
- b) Short Ckt.- 1.5-8 XIn

5 TECHNICAL SPECIFICATION FOR INSTALLATION OF EQUIPMENTS

5.1 Scope

This specification covers the engineering requirements for erection/installation, testing, laying of cables and commissioning of equipment/items and its associated works.

5.2 Standards

Erection, testing and commissioning of the equipments covered shall be done as per standard codes of practice and shall comply with requirements of following Indian Standards and other relevant standards, Indian Electricity Rules and acts and also to the regulations that are in force at the place of installation.

- a) IS: 5216 : Guide for safety procedures and practices in Electrical work
- b) IS: 100118 : Code of practice for selection, installation and maintenance for Switchgear and control gear-Part-III Installation.
- c) IS: 13408 : Code of practice for the selection, installation and maintenance of electrical apparatus for use in potentially explosive atmospheres (other than mining application of explosives processing and manufacture).
- d) IS: 3043/87 : Code of practice for installation & maintenance of earthing of installation.

5.3 Reference

Following documents shall be read in conjunction with this specification:

- a) Scope of work and special requirements
- b) Schedule of items of work
- c) Engineering Specification and Data sheet of General requirements of Electrical system

5.4 GENERAL CONDITIONS FOR INSTALLATION OF EQUIPMENTS

- a) The erection/installation, testing and commissioning shall be carried out in accordance with specification, data sheets, drawings, manufacturer's recommendations, and relevant standards or as directed by owner/Engineer-In-Charge. Requirements regarding erection/installation, testing and commissioning of switchboards, cables, etc, are generally explained here in. It is the responsibility of the contractor to supply all equipment, items, accessories, materials, tools, tackles, transporting, and lifting vehicles, consumables etc. required for unpacking, checking, transportation, storage, safe custody, installation, erection, testing, commissioning, return of unused equipment/items which are supplied from owner's stores and handing over of the installation to the entire satisfaction of owner.
- b) The erection scope shall include supply of all hardware and accessories such as bolts, nuts, washers, gaskets, cable termination accessories, lugs, paint, primer, sand, etc. required for completeness of the work. All consumable materials such as insulation, tape, cleaning and paint brushes, welding electrodes, rust preventive materials, jute, cotton waste, hack saw blades, bolts, nuts, inhibitive grease, fuel, lubricants, etc. and any other material required in carrying out the work, but not for incorporation in to the permanent work, shall also be included in the scope of contractor.
- c) The equipment/items to be erected shall be handled with care by experienced workers under the guidance of the competent supervisor. Proper handling and transporting equipments are to be used and dragging is to be avoided.
- d) The equipment/items supplied by the owner, shall normally be kept at their stores. The contractor shall inspect these items at the stores by unpacking the containers, if necessary. Responsibility of safe custody of materials after delivery and till handing over shall rest with the contractor. Unused materials and containers shall be returned to the stores. The items supplied by the owner shall be transported from the point of storage to the point of erection/ installation using proper capacity transporting vehicles. The scope shall include unpacking the containers, assembling parts, fixing loose items, components, etc. Materials supplied by the contractor or issued by the owner shall be given suitable protection against weather, dust and vermin. In storage places, equipments shall be placed over wooden sleepers to keep them above ground. Before carrying out erection/installation works of any item, proper care regarding leveling, alignment, access to working parts, facilities for removing the items for repair, statutory clearance, etc. shall be taken.
- e) Foundation bolts, nuts, lock nuts, washers, etc. will normally be supplied by the equipment supplier. Any further requirement of these items shall be under the scope of contractor. The equipment shall be installed on the foundation bolts firmly such that there will not be any vibration during operations. For mounting of equipment/items on the walls/ columns / supports, suitable MS/GI brackets shall be fixed/ grouted.
- f) Electrical connections shall be done with great care using spring washers, bimetallic strips, conducting grease, etc. wherever required, to ensure good contact without creating undue stresses. Copper bus bar joints shall be made after tinning the contact

area. Supply of all required accessories or electrical connections shall be included in the contractor's scope. Discrepancies if any found between drawings/ statutory requirements and actual conditions at the site, shall be immediately brought to the attention of owner's representative. If any modification is found required in the writing or to suit site condition the same shall be carried out as per the instruction of the Engineer-In-Charge without any extra cost.

- g) All equipments under erection shall be kept properly cleaned and free of dust, vermin, moisture, etc. After erection, it shall be ensure that non-foreign materials, tools or tackles are left in the equipment. All unused cable entries, cutouts, etc. shall be sealed properly. For hazardous area, blanking plugs suitable for the area classification applicable shall be used.
- h) All tests shall be carried out in the presence of owner's representative and test shall be recorded on an approved proforma duly certified. The records of all tests shall be submitted to the purchaser's representatives. All interconnected wiring shall be checked thoroughly for correct connection with the wiring and schematic drawings of the manufacturer and the drawings supplied by owner before energizing.
- i) All power and bus bar connection shall also be thoroughly inspected and checked for connections, foreign materials, tightness, etc. before energizing the equipment All components within the main equipment shall be tested for proper performance and correct operation before commissioning the equipment.
- j) All labeling shall be checked for correctness. All nuts, bolts, clamps, joints, connections, etc. shall be checked for tightness and tightened wherever required. All moving parts shall be checked for its correct movement and proper lubrication. Apply lubrication wherever required. All equipment containing liquid shall be checked for correct quantity filling and all gaskets, walls, etc, shall be checked for leak proof. Oil filling, if found required, shall be done with dry and clean oil. Gaskets shall be replaced if found required. It shall be ensured that all CT leads are loaded or shorted prior to testing and commissioning. Insulation tests shall be carried on all electrical devices, whether specifically mentioned or not, as per this work after properly cleaning these devices.
- k) All the relays and its settings after commissioning shall be furnished to the owner detailing relay type number, panel number etc. In case of any component of an equipment supplied by the owner is found to faulty/unsuitable, the same shall be replaced by the new one issued by owner. For all relays before installation, the rating, range and auxiliary supply voltages for the relay should be checked against drawings/ schematic/ schedule.

5.5 INSTALLATION OF MV PANELS, FEEDER PILLAR AND JUNCTION BOXES

- a) The Equipments shall be erected at convenient locations as per the instruction from the Engineer in charge. All civil works, foundation including supply and laying of MS angles, channels and grouting fasteners for erection shall be responsibility of the Contractor. After installation of the equipments they shall be tested and commissioned in the presence of Engineer- in- charge in accordance with IE rules, relevant standards and as per requirements. All backfill of the site must be compacted before final site finish.
- b) The locations shall be finalized in consultation with the Engineer in charge. The provision for the cable entry shall be from bottom and necessary space/ provision shall

be made for drawing the cables conveniently into the feeder pillar. The verticality of the panels shall be checked and ensured. Only appropriate foundation-hold-down bolts, nuts and check nuts shall be used and all the necessary spring and flat washers shall be provided. Suitable packing shims shall be used wherever necessary under the bottom of the frame for adjustment and leveling and checked with a spirit level. All the units shall then be assembled at site if necessary.

5.6 PROVIDING END TERMINATION OF LT CABLES

Supply and making of end terminations with brass/ pvc glands, lugs etc complete suitable for cables as per schedule of work. the item shall be single compression type tinned/nickel plated (coating thickness not less than 20 microns in case of tin and 10 to 15 microns in case of nickel) brass cable/pvc glands shall be provided by the contractor for all power and control cables to provide dust and weather proof terminations. they shall comprise of heavy duty brass casting, machine finished and tinned to avoid corrosion and oxidation. rubber components used in cable gland shall be neoprene and of tested quality. required number of packing glands to close unused openings in gland plates shall also be provided. for copper cable the termination materials shall be copper materials.

5.7 PROVIDING HOUSING, ROOFING & FOUNDATION FOR FEEDER PILLARS AND JUNCTION BOXES

- a) The roofing shall be provided with AL. Powder Coated corrugated sheet and Leg shall be done with min.50MM GI pipe of B Class and supported with CC footing at base. The roof support shall be done with GI Pipes 25MM / GI Tubes with Suitable size/ GI clamps, fixtures/ fasters etc .The structures shall be painted with 2 coats of epoxy primer and 2 coats of epoxy paint.

5.8 PIPE EARTHING

Pipe earthing has to be done as per IS 3043.

GI pipe 40 mm dia, B class, shall be used for pipe earthing the panels and junction boxes including supply of CU wire for connection to equipments.

- a) The length of the GI pipe shall be min. 4 feet length.
- b) The diameter of the pipe shall be min. 40 mm.
- c) The GI pipe shall be of class B type.
- d) Brick work chamber and its cover shall be provided.
- e) The earth pipes shall be connected to equipments with 10SWG bare copper wire

5.9 SPECIAL CONDITIONS FOR ELECTRICAL WORKS

- a) All current carrying components in all installation shall be of appropriate rating of voltage and frequency as required at respective areas.
- b) All equipments to be supplied and works to be executed shall conform to the CEA standards including protection and metering accessories. No extra amount will be paid in this regard.
- c) All testing and calibration etc are to be carried out as per requirement of statutory authority concerned.

- d) On completion of work the contractor has to obtain necessary safety/energisation certificate from statutory agency concerned, by submitting necessary completion statement/ drawing, equipment details etc. before energisation.

All costs incurred in obtaining such approval/certificate are to be borne by the contractor. Statutory fees paid shall be reimbursed on presentation of document.

5.10 DISMANTLING OF OLD/ DAMAGED EXISTING ELECTRICAL PANELS

The dismantled/ removed items shall be handed over to the scrap yard or as directed by the Engineer-in-charge. The removed portions /surfaces shall be made good with cement plaster etc. by the contractor at his own cost.

Giving temporary arrangements for restoring the supply during replacement, rerouting the cables to the new Distribution Panel for commissioning the new Distribution Panel shall be done by the contractor

5.11 CIVIL AND STRUCTURAL WORKS

- a) Miscellaneous civil works associated with the erection/installation such as excavation, dewatering and refilling of earth work for earth pits and cable trench, chipping, grouting, small cutting, etc, on floors/walls/columns/structures and bringing back the same to original finish, grouting of supports, providing suitable fixing arrangements for cables, push button stations, DBs etc. shall be included in the rates quoted for erection of the respective items, unless specifically excluded in the "Schedule of Items of Work". All structural works associated with cabling, earthing, equipment erection and supporting arrangements shall be included in the scope of the contractor. All the welding and cutting works shall be carried out by certified welders. Painting shall be done on all MS materials provided, by the contractor such as base channels, frames, supports, pedestals, cable trays/racks/risers, enclosures, boxes, conduits, chequered plates, etc. Before painting, the surface should be thoroughly scraped and cleaned to remove dust, grease, plaster or any other foreign materials. It is the responsibility of the contractor to supply and install all the required materials for painting including paint. Cement concrete footing shall be provided for cable trays/racks/risers, pedestals, supports, etc. Footing shall be provided using 1:2:4 PCC with 20mm broken stone. It is responsibility of the contractor to supply and install all materials such as river sand, reinforcement rods, 20mm broken stone, etc. without any extra cost to owner. All concrete works and grouting shall be cured for a minimum period of 48 hours.
- b) Chipping, grouting, etc as recommended shall be done for completion and installation work on the finished floor, wall, roof, etc. and the surfaces has to made good after the work. It is the responsibility of the contractor to supply all necessary materials and to bring the disturbed surface to the original finish. Touch painting of scratches found on equipment, other painted metallic surfaces, galvanized, etc. associated with this work is also included in the scope of contractor without any extra cost. Base steel structures shall be painted with 2 coats of epoxy primer and 2 coats of epoxy paint.

5.12 STANDARD REQUIREMENTS FOR TESTING AND COMMISSIONING

- a) The standard requirements for testing and commissioning are furnished below.
- b) All tests shall be carried out in the presence of Owner's representative and tests shall be recorded on an approved format duly certified. The records of all tests shall be submitted

to the purchaser's representative.

- c) All interconnected wiring shall be checked thoroughly for correct connections with the wiring and schematic drawings of the manufacturer before energizing. All Power and bus bar connections shall also be thoroughly inspected and checked for correctness, foreign materials, tightness, etc. before energizing the equipment.
- d) All components within the main equipment shall be tested for proper performance and correct operation before commissioning the equipment. All labeling and nameplates shall be checked for correctness. All nuts, bolts, clamps, joints, connections, etc shall be checked for tightness and tightened wherever required. All moving parts shall be checked for its correct movement and proper lubrication. Apply lubrication wherever required. All equipment containing liquid shall be checked for correct quantity filling and all gaskets, valves, etc., shall be checked for leak proofness. Oil filling if found required shall be done with dry and clean oil. Gaskets shall be replaced if found required. The condition of the oil shall be tested in accordance with IS-335.

5.13 TESTS

All standards, specifications and codes of practice referred to herein shall be the latest editions including all applicable official amendments and revisions as on date of opening of bid. In case of conflict between this specification and those (IS: codes, standards, etc.) referred to herein, the former shall prevail.

- (i) **IS: 4237** : **General requirement of switch gears and control gear for voltage not Exceeding 1000V**
- (ii) **IS: 375** : **switch gear bus bars, main connection and auxiliary wiring, marking and arrangements.**
- (iii) **IS: 2147** : **Degree of protection provided by enclosures for low voltage switch gear and control gear**
- (iv) **IS:8197** : **Terminal marking for electrical measuring instruments and their accessories.**
- (v) **IS: 2557** : **Danger notice plates**
- (vi) **IS: 3072** : **Code of practice for installation and maintenance of switch gear.**
- (vii) **IS:8623** : **Specification for factory built switch gear and control gear voltage up to including 1000V AC and 1200 V DC**
- (viii) **IS: 2705** : **Current transformer**
- (ix) **IS 1248** : **Indicating instrument**
- (x) **IS: 2959** : **Auxiliary contactor**

5.14 APPROVED MAKES

APPROVED MAKES		
1	1.1 KV XLPE CABLE	CCI / INCAB/ UNIVERSAL/ RPG/ NICCO/ TORRENT / POLYCAB / PARAMOUNT/ KEI / HAVELLS / FINOLEX / V-GUARD/ L&T / PRIMECAB / RR KABEL / GLOSTER/ APAR
2	CABLE TERMINATION KIT	RAYCHEM /MAHINDRA / DENSON/ 3M/ CCI / CABSEAL

3	TOD ENERGY METER	L&T/ ENERCON
4	ENERGY METER / AMMETER / VOLTMETER	SIMCO / MECO/ L&T/ HPL/ AE / RISHAB / SCHNEIDER / SECURE /SOCOMECEC / CONZERVE /SIEMENS/ABB/C&S
5	RELAYS	ABB/ L&T/ SIEMENS / RISHAB / GE / SCHNEIDER / ALSTOM / EASUN REYROLLE / C&S
6	CURRENT / POTENTIAL TRANSFORMER	INTRANS/ KAPPA/ INDUS/ CG/ CYRO/ABB/BHEL/CG/ MEGAWIN/ TRANSDelta / KEL
7	MCCB / MCB / CONTACTOR / TIMER	LEGRAND / MERLIN GERIN / MK / ABB/ INDOASIAN / L & T / SIEMENS /SCHNEIDER / HPL
8	LT ACB	LEGRAND / ABB/ L & T /SIEMENS / SCHNEIDER
9	INDUSTRIAL PLUG WITH MCB	ABB / HAGER / HAVELLS / INDOASIAN / CROMPTON / LEGRAND / SCHNEIDER / L&T/ HPL
10	PLUG SOCKETS -IP66	MENNEKES / HENSEL / MERLIN GERIN / L&T/ ABB / WALTHER / CAPE
11	BATTERY	EXIDE / AMARON / PRESTOLITE / AMCO / STANDARD FURUKAWA
12	PVC CONDUIT PIPES / CASING & CAPPING	BALCO/ ATUL/ GEO/ CLIPSAL/ PRECISION/ AVONPLAST/ KONSEAL
13	HDPE PIPE/ FLEXIBLE HOSE	KONDOOR or any other make with BIS
14	WIRING CABLE	FINOLEX/ QFLEX/ RR KABEL/ RPG CABLES/ LAPP KABEL/ V-GUARD/ HAVELLS/ L&T/ RALLISON
15	MODULAR SWITCHES/ PLUG SOCKETS/ CEILING ROSE	ANCHOR/ MK/ LEADER / CRABTREE/SIEMENS/ FINOLEX/LEGRAND/ABB / INDOASIAN
16	MV PANEL / DISTRIBUTION BOARD	ABB/ INTRANS/ MEGAWIN/ HESSEL/ WAVES/ POWERCONTORLS/ ABB/ L&T/ SIEMENS/ SCHNEIDER / HENSEL/ MENNEKES/ HAGGER/ IMPERIAL/ PAS
17	FRP CABLE TRAY	PUSTRON/ SUMIP/ ERCON OR FIRM HAVING ISO AND CERTIFICATES AS PER THE TENDER SPECIFICATION .
18	GI CABLE TRAY	PUSTRON/ SUMIP/ ERCON/L&T OR REPUTED MAKE WITH ISO CERTIFICATION.

SECTION VI

PREAMBLE TO BILL OF QUANTITIES

1 General Instructions

1.1 General

- a) This Bill of Quantities must be read with the Drawings, Conditions of Contract and the Specifications, and the Contractor shall be deemed to have examined the Drawings, Specifications, General Conditions of Contract and to have acquainted himself with the detailed descriptions of the Works to be done, and the way in which they are to be carried out.
- b) Notwithstanding that the work has been sectionalized every part of it shall be deemed to be supplementary to and complementary of every other part and shall be read with it or into it so far as it may practicable to do so.
- c) The detailed descriptions of work and materials given in the Specifications are not necessarily be repeated in the Bill of Quantities.
- d) The Contractor shall be deemed to have visited the Site before preparing his tender and to have examined for himself the conditions under which the work will proceed and all other matters affecting the carrying out of the works and cost thereof.
- e) The Tenderer will be held to have familiarized himself with all local conditions, in so far as they affect the work, means of access and the locality of existing services, in order to execute the Works measured and described hereinafter. No claims for want of knowledge in this respect will be reimbursed.

1.2 Rates and Prices to be Inclusive

- 1.2.1** Rates and prices set against items are to be the all-inclusive value of the finished work shown on the Drawings and/or described in the Specification or which can reasonably be inferred there from and are to cover the cost of provision of plant, labour, supervision, materials, test charges, freight, transportation, erection, installation, performance of work, care of works, insurance, maintenance, overheads and profits and every incidental and contingent cost and charges whatsoever including all taxes and duties such as turnover tax and every kind of temporary work executed or used in connection therewith (except those items in respect of which provision has been separately made in the Bills of Quantities) and all the Contractor's obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the Works.
- 1.2.2** The Specifications are intended to cover the supply of material and the execution of all work necessary to complete the works. Should there be any details of construction or material which have not been referred to in the Specifications or in the Bill of Quantities and Drawings, but the necessity for which may reasonably be implied or inferred there from, or which are usual or essential to the completion of all works in all trades, the same shall be deemed to be included in the rates and prices entered in the Bill of Quantities. The rates and prices are to cover the item as described in the Bill of Quantities and if there is inconsistency in the description between the Bill of Quantities, Specifications or Drawings, the interpretation will be done according to General Conditions of Contract.
- 1.2.3** The quantities given in the Bill are approximate and are given to provide a common basis for tendering. They are not to be taken as a guarantee that the quantities scheduled will be carried out or required or that they will not be exceeded. The Employer / Engineer reserves the right to delete any item and / or increase / reduce quantities indicated in the Bills of Quantities at any time. Payment will be made according to the actual quantities of work ordered and carried out in the contract. However, the rates quoted shall be valid for any extent of variation in quantity of each individual item provided that the total contract value does not get altered by more than indicated in conditions of contract. No claim whatsoever for extra payment due to variation of quantities within the above said limit would be entertained.
- 1.2.4** The drawings for tender purposes are indicative only of the work to be carried out. However,
- 1.2.5** construction purposes. Rate and price shall include any additional design/ detailing to be carried out by contractor.
- 1.2.6** The rates and prices shall include (except where separate items are given) for the provision and operation of the following items, for compliance with the Condition of Contracts, Special Conditions, the specifications and Tender drawings:
- a) Supervision and labour for the Works;
 - b) All materials, installation/erection, handling and transportation;
 - c) All Contractor's Equipment;
 - d) All testing, commissioning, insurance, maintenance, security, welfare facilities, overheads and profit and every incidental and contingent costs and charges

- whatsoever including;
- e) All temporary fencing, watching, lighting, sanitary accommodation, general security arrangements, welfare facilities and first aid provision;
 - f) Provision and maintenance of Contractor's Site offices, cabins, huts, maintenance and storage areas;
 - g) All taxes and duties including General Tax, Turn-Over tax, Duties etc.
 - h) All necessary temporary services including fresh water, compressed air lines, electrical cabling and switchgear, telephone, walkie-talkie and facsimile facilities
 - i) The maintenance of all Contractor's services;
 - j) All insurances for the Works;
 - k) Allow for complying with all environmental aspects as specified;
 - l) For carrying out hot work of any kind contractor should consider safety of vessel in adjoining berth;
 - m) Detail design of components of temporary works, wherever necessary as directed by Engineer.

1.3 Method of Measurement

Standard Method: The work included in Bill of Quantities once completed will be presented to the Engineer's representative for checking quality and quantity of work. The Engineer's representative after satisfying himself issue a certificate to that effect. Unless stated or billed otherwise quantities shall be measured in accordance with Indian Standard Code No.1200 for civil work and shall be not as they are provided in the works. The rates and prices shall include whatsoever allowance is considered to be necessary for wastage, working spaces, construction slopes and batters.

The mode of measurement and payment described in the relevant technical specifications shall apply for the relevant items.

1.4 Currency

All monetary reference herein and the Bill of Quantities shall be priced in Indian Rupee Currency.

1. BILL OF QUANTITIES

Sl.no.	Item	Qty.	Unit	Rate in Rs.	Amount in Rs.
1	Supply, Installation, Testing & Commissioning of MV Panels/ Feeder Pillars/Jn. boxes in various locations, as detailed below:				

(i)	Incomer - 800 A, 4 Pole Fixed type ACB, 50 KA, Microprocessor LSG; Outgoing: 400 A, 4 Pole MCCB, 36 KA, Microprocessor -2; 250 A 4 Pole MCCB, 36 KA, Microprocessor -2; 200 A, 4 Pole MCCB, 36 KA Adj. Thermal, Adj. Magnetic -1; 125 A, 4 Pole MCCB, 25 KA Adj. Thermal - 1, Spreader Links for all MCCB s , Voltmeter & Ammeter with Selector Switch etc.	2	Nos.		
(ii)	Incomer: 400 A 4 Pole MCCB, 36 KA Microprocessor LSIG; Outgoing: 200 A 4 Pole MCCB,36 KA Adj. Thermal -3; 125 A 4 Pole MCCB,25 KA Adj. Thermal -2; 63 A 4 Pole MCCB,25 KA Adj. Thermal; 32 A MCB, C Curve -1 , Spreader Links for all MCCB s , RYB Indicators etc.	1	Nos.		
(iii)	Incomer: 400 A 4 Pole MCCB, 36 KA Microprocessor LSIG; Outgoing: 250 A ,4 Pole MCCB,36 KA Adj. Thermal -1; 200 A,4 Pole MCCB,36 KA Adj. Thermal -2; 125 A , 4 Pole MCCB,25 KA Adj. Thermal -2; 63 A, 4 Pole MCCB,25 KA Adj. Thermal -2; 32 A, MCB C Curve-1, Spreader Links for all MCCB s , RYB Indicators etc.	1	Nos.		
(iv)	Incomer: 400A 4 Pole MCCB, 36 KA Microprocessor LSIG; Outgoing: 250 A, 36 KA Adj. Thermal -1; 100 A, 4 Pole MCCB,36 KA Adj. Thermal -2; 63 A, 4 Pole MCCB, 25 KA Adj. Thermal -4, Spreader Links for all MCCB s , RYB Indicators etc.	1	Nos.		
(v)	Incomer 1 - 400 4 Pole MCCB, 36 KA Adj. Thermal, Adj. Magnetic; Incomer 2 - 400 A 4 Pole MCCB, 36 KA Adj. Thermal, Adj. Magnetic; Out going: 250 A 4 Pole MCCB 36 KA Microprocessor -1; 250 A, 4 Pole MCCB 36 KA Adj. Thermal, Adj. Magnetic -1; 200 A , 4 Pole MCCB,36 KA Adj. Thermal -1; 4 Pole 63 A MCB, C Curve -1, Spreader Links for all MCCB s , RYB Indicators etc.	1	Nos.		

(vi)	Incomer: 400 A 4 Pole MCCB, 36 KA Microprocessor LSIG; Outgoing: Building Supply: 200 A, 4 Pole MCCB, 36 KA Adj. Thermal, Adj. Magnetic -1; 100 A ,4 Pole MCCB,36 KA Adj. Thermal -1; Motor Protection CB 100 A ,4 Pole,36 KA -3; 4 Pole 63 A MCB, C Curve -5 Spreader Links for all MCCB s , RYB Indicators etc.	1	Nos.		
(vii)	Incomer: 250 A, 4 Pole MCCB,36 KA Adj. Thermal, Adj. Magnetic; Outgoing: 200 A, 4 Pole MCCB,25 KA Adj. Thermal -1; 125 A, 4 Pole MCCB,25 KA Adj. Thermal-1, Spreader Links for all MCCB s , RYB Indicators etc.	1	Nos.		
(viii)	Incomer: 250 A, 4 Pole MCCB,36 KA Adj. Thermal, Adj. Magnetic ; Outgoing: 125 A, 4 Pole MCCB,25 KA Adj. Thermal -1; 100 A, 4 Pole MCCB,25 KA Adj. Thermal -1; 63 A, 4 Pole MCCB,25 KA Adj. Thermal -3; 32 A, MCB C Curve -1, Spreader Links for all MCCB s , RYB Indicators etc.	1	Nos.		
(ix)	Incomer - 250 A, 4 Pole MCCB,36 KA Adj. Thermal, Adj. Magnetic; Outgoing: 100 A, 4 Pole MCCB,25 KA Adj. Thermal; 63 A -1; 4 Pole MCCB,25 KA Adj. Thermal -2; 32A, MCB C-Curve -2, Spreader Links for all MCCB s , RYB Indicators etc.	1	Nos.		
(x)	Incomer: 250A MCCB 36 KA Adj. Thermal, Adj. Magnetic; Outgoing: 100 A 4 Pole MCCB, 25 KA Adj. Thermal -2; 63 A 4 Pole MCCB, Adj. Thermal -4, Spreader Links for all MCCB s , RYB Indicators etc.	1	Nos.		
(xi)	Incomer: 250 A, 4 Pole MCCB,36 KA Adj. Thermal, Adj. Magnetic; Outgoing: 125 A, 4 Pole MCCB, 25 KA Adj. Thermal -1; 4 Pole 63 A MCB, C Curve -7 Spreader Links for all MCCB s , RYB Indicators etc.	1	Nos.		

(xii)	Outdoor Cable Junction Boxes with Cu. Busbars 400 A Capacity, RYB Indicators	4	Nos.		
2	Retrofitting of MCCB s in the existing panel by made suitable for mounting and using suitable spreaders, operating handle etc. as detailed below;				
(i)	400A 4 Pole MCCB, 36 KA Microprocessor, with Spreaders -1 no.	1	Nos.		
(ii)	250 A 4 Pole MCCB, 36 KA Microprocessor, with Spreaders -1 no.	1	Nos.		
3	Earthing with G.I. earth pipe 2 metre long, 40 mm dia including supply of all items and connecting to FP/Panel/Jn. Box with 6 SWG dia GI Wire	4	Nos.		
4	Supply & Installation of GI strip of Size 3 MMX 25 MM and connecting earth points to MV Panels etc.	75	M		
5	Supply of Materials and providing Housing for Feeder pillar etc. with foundation , wire mesh fencing , GI pipes/ angles , gate and lock , AL powder coated sheet for roofing etc.	31	Sq.M		
6	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of following sizes 1.1 KV cables.				
(i)	3.5c X 25sqmm	3	Nos.		
(ii)	3.5c X 50 sqmm	7	Nos.		
(iii)	3.5c X 95 sqmm	7	Nos.		
(iv)	3.5c X 120 sqmm	9	Nos.		

(v)	3.5c X 150 sqmm	5	Nos.		
(vi)	3.5c X 240sqmm	24	Nos.		
(vii)	3.5c X 300sqmm	16	Nos.		
(viii)	3.5c X 400sqmm	4	Nos.		
7	Dismantle & Removal of Existing Panels/ Feeder Pillars/ Jn. Boxes and Transporting the same to T &R Section of CoPA in Willingdon Isand				
(i)	Removal of Existing Panel of 800 A and giving temporary connections of cables so as to restore power till installation of New Panel with necessary items as required including shifting of old panels to scrape Yard.	2	Nos.		
(ii)	Removal of Existing Feeder Pillars of 400 A and giving temporary connections of cables so as to restore power till installation of New Feeder Pillar ,including shifting of old panels to scrape Yard.	5	Nos.		
(iii)	Removal of Existing Feeder Pillars of 250 A and giving temporary connections of cables so as to restore power till installation of New Feeder Pillar with necessary items as required, including shifting of old panels to scrape Yard.	5	Nos.		
(iv)	Removal of Existing Junction Box 400 A and giving temporary connections of cables so as to restore power till installation of New Junction Box with necessary items as required, including shifting of old panels to scrape Yard.	4	Nos.		
	TOTAL				

Price for the above Bill of Quantities including GST shall be quoted in the GeM portal(<https://gem.gov.in/>)

**SECTION VII
CONTRACT DATA**

[To be filled up before issuing tender document as applicable for each tender]

Items marked “N/A” do not apply in this Contract.

Sl. No.	Description	Reference Clause .No. in GCC
1	The following documents are also part of the Contract	
	The Schedule of other Contractors	
	The Schedule of Key personnel	
2	The Employer is	
	The Board of Major Port Authority for the Cochin Port, Cochin -9	
	Name of Authorized Representative:	
	Name : Sri. B. Kasiviswanathan, The Chairperson Cochin Port Authority, Cochin -9	
3	The Engineer is	
	Name : Shri. V.Thuraipandian Chief Mechanical Engineer Cochin Port Authority, Cochin-9	

Sl. No.	Description	Reference Clause .No. in GCC
	Name of Nominee is : Will be notified in LoA/ LoI	
	Name : Shri..... Cochin Port Authority Cochin-9	
4	Name of Contract: RETROFITTING AND REPLACEMENT OF OLD FEEDER PILLARS, LT Panels & Junction Boxes at various locations in Willingdon Island	
5	4 copies of Contract Agreement shall be furnished by the Contractor	
6	Tender document and other data are available at : GeM portal https://gem.gov.in/ , in the CoPA website www.cochinport.gov.in as well as in the Central Public Procurement Portal of Govt. of India, www.eprocure.gov.in	
7	The Intended completion Date for the whole of the Work is 120days from date of issue of LoA/GeM Order with the following milestones:	
8	Milestone dates:	
	Physical works to be completed	
9	The following shall form part of the Contract Document: (1) Agreement (2) Letter of Acceptance (3) Bill of quantities (4) Contractor's Bid (5) Correspondence exchanged after the opening of the Bid and before the issue of Letter of Acceptance by which the Condition of Contract are amended, varied or modified in any way by mutual consent (to be enumerated). (6) Contract Data (7) Conditions of Contract (8) General Description and Special Conditions of Contract (9) Technical Specifications (10) Drawings and (11) Any other documents listed in the Contract Data as forming part of the Contract.	
10	The Contractor shall submit a Program for the Works	
11	The site possession date The site will be handed over within immediately after issue of LoA/LoI and the site is free from encumbrances. Such possession will not be exclusive to the	

Sl. No.	Description	Reference Clause .No. in GCC
	contractor. Refusal of the contractor to take over the possession, shall entitle CoPA to terminate the contract without payment of any compensation.	
12	The start date shall be 7 days after issue of GeM order.	
13	The site is located in Willingdon Island.	
14	The Defects Liability Period is One year from the date of completion of the work and handing over the site to CoPA	
15	The minimum insurance cover for physical property, injury and death is Rs.7 lakh (Rupees Seven Lakh) per occurrence with the number of occurrences unlimited. After each occurrence, Contractor will pay additional premium necessary to make insurance valid always.	
16	The language of the Contract documents is English.	
17	The law, which applies to the Contract, is the law of Union of India.	
18	The currency of the Contract is Indian Rupees.	
19	The maximum amount of liquidated damages for the whole of the works is 10% of the contract price.	

LETTER OF SUBMISSION - COVERING LETTER

(ON THE LETTER HEAD OF THE BIDDER)

Date:

To

The Chief Mechanical Engineer,
Cochin Port Authority.

Sir,

**Sub : Retrofitting and Replacement of Old Feeder Pillars, LT Panels & Junction Boxes
at various locations in Willingdon Island**

Being duly authorized to represent and act on behalf of (Hereinafter referred to as “the Bidder”) and having reviewed and fully understood all of the requirements of the bid document and information provided, the undersigned hereby apply for the project referred above.

We are submitting our Bid enclosing the following, with the details as per the requirements of the Bid Document, for your evaluation.

1. EMD/ MSME registration certificate
2. Power of attorney
3. (documents as per MQC)

Signature

(Authorised Signatory)

Annexure- 2

**PROFORMA OF POWER- OF-ATTORNEY/LETTER OF AUTHORITY
(To be submitted on Non-judicial Stamp Paper of appropriate value)**

To
The Chief Mechanical Engineer,
Cochin Port Authority,
Cochin 682009.
Kerala, India.

Dear Sir,

We _____
do hereby confirm that Mr./Ms./Messrs _____ **[INSERT NAME AND ADDRESS]**, whose signature is given below, is /are authorized to represent us to bid, negotiate and conclude the agreement on our behalf with you against Tender for Contract **“Retrofitting and Replacement of Old Feeder Pillars, LT Panels & Junction Boxes at various locations in Willingdon Island”**

We confirm that we shall be bound by all and whatsoever our said agents shall commit.

Signature of the authorized person :

Name & Designation :

Yours faithfully,

Signature, name and seal of the certifying authority

ORGANIZATION DETAILS

CONTRACT No.:

NAME OF APPLICANT:

1. Name of the Owner:
2. Address:
Telephone No. :

Fax No.

e-mail id:

3. Description of Applicant
(for e.g. A or B grade electrical contractor etc.)

4. Registration and Classification
of Contractors

5. Name and address of bankers

6. Number of years of experience
as a contractor :-

In own Country:

Internationally:

7. Name and Address of partners or
associated companies to be involved

in the project and whether Parent/

Subsidiary/other

8. Name and address of any associates knowledgeable in the procedures of customs, immigration and local experience in various aspect of the project etc.
9. Name and address of the companies/ Sub-contractors who will be involved in the execution of works, namely:
10. Name and address of companies who will be involved in the supply of bought out items
12. Attach organization chart showing the structure of the company including names of Directors/ Key Personnel at Head Office who would be responsible for the project and a separate chart showing proposed Site Construction Organisation.

Signature
(Authorised Signatory)

Tenderer shall furnish Details of “eligibility works experience” as per Clause 12 of Minimum Eligible Criteria (MEC) of Instruction to Tenderer and certificates in the following format (CoPA Certificates/work completion certificates or any other documentary evidences with respect to the eligibility work)

ELIGIBLE ASSIGNMENT DETAILS FOR MQC

Assignment Number :

Description	Bidder to fill up the details here
Name and Address of the firm	
Title of the Eligible Assignment	
Date of completion of the Eligible Assignment	
Project Completion Cost	
Reference No. of the enclosed firm Completion Certificate/ Documentary Evidence for having successfully completed the Eligible assignment	
Name, telephone no, telefax no and email address of the firm’s representative	
Description and Scope of Work	

Instructions:

- i) Bidders are expected to provide information in respect of Eligible Assignments in this Section. The assignments cited must comply with the criteria specified Clause No. 12(a) Minimum eligibility of the Instructions to Tenderers”.
- ii) A separate sheet should be filled for each of the eligible assignments.
- iii) The details are to be supplemented by documentary proof from the respective form /owner for having carried out such assignment duly certified by firms/ owner.
- iv) **The works indicated in this Annexure- 4 will be only being considered for evaluation. Mere submission of work completion certificate will not be considered as Eligible Assignments.**
- v) Original or notary certified copy of completion certificates of each work issued by the owner/ the responsible officers of the owner under whom he has executed such contracts shall be attached. The certificate shall invariably contain the following among other things.
 - a) Details of work involved specifying the nature of work
 - b) The completion cost of the work and

- c) Date of commencement ; and
- d) Date of completion of the work.
- vi) If the experience in similar works is as a member of joint venture, notary attested copy of joint venture agreement in this respect shall be attached.
- vii) If the experience in similar works is as a subcontractor, notary attested copy(s) of approval issued by the Employer(s) authorizing as a sub-contractor; in proof of the claim of the tenderer as a sub-contractor shall be attached.
- viii) If the experience in similar work is in works executed in private sectors/organisations, the Form 26AS along with notary attested copy(s) work order and completion certificate.
- ix) The tenderer is also obliged to produce the original of the certified copy(s) on request by the department.

Signature

(Authorised Signatory)

DETAILS OF PAST EXPERIENCE OF CONTRACTORS FOR SIMILAR WORKS

Sl. No.	Name & Location of Project	Owner's Complete address including TeleFax No. with contact Person	Value of Contract	Duration of Contract			Details of work including major items of work involved	Reference No. & Date of letter of intent & completion certificate enclosed
				Commencement date	Scheduled completion date	Actual completion date		
1	2	3	4		6	7	8	9

Note: Bidder to enclose completion certificate issued by owner, certified by a Notary public or equivalent certifying authority.

SIGNATURE OF TENDERER

FINANCIAL CAPABILITY]

Average Annual Turnover of the Bidder

Turnover (Rs.)			
Year 1	Year 2	Year 3	Average
2020-21	2021-22	2022-23	

Certified by Chartered Accountant

Signature

(Authorized Signatory)

Instructions:

- (i). The Bidder shall provide audited Annual Reports / Audited financial statements such as balance sheets and profit & loss account statements as required under this Bid Document.
- (ii). Annual turnover of the bidder shall be submitted duly verified by Chartered Accountant

DECLARATION

We M/s (Name & address of the bidder) hereby declare that:-

1. All details regarding construction plant, temporary work and personnel for site organisation considered necessary and sufficient for the work have been furnished in the Annexure 7 and that such plant, temporary works and personnel for site organisation will be available at the site till the completion of the respective work.
2. No conditions are incorporated in the financial bid. In case any conditions are specified in the financial bid, the tender will be rejected summarily without making any further reference to the bidder.
3. We have not made any payment or illegal gratification to any persons/ authority connected with the bid process so as to influence the bid process and have not committed any offence under PC Act in connection with the bid.
4. We disclose with that we have * made / not made payments or propose to be made to any intermediaries (agents) etc in connection with the bid.
5. We do hereby confirm that no changes have been made in the tender document downloaded and submitted by us for the above bid. Port Tender document will be treated as authentic tender and if any discrepancy is noticed at any stage between the Port's tender document and the one submitted by the tenderer, the Port's document shall prevail.

Signature

(Authorized Signatory)

*** Note: Delete whichever is not applicable.**

**DETAILS OF THE PARTY OPTING FOR
REFUND OF EMD THROUGH E-PAYMENT SYSTEM**

Name of the Party :

Bank A/c No :

Account type : (Savings / Current / Overdraft)

Bank Name :

Branch :

IFSC Code Number : (11 digit code)

Centre (Location) :

FAX No. :

E-Mail ID : (For forwarding information of remittance)

Mobile No :

Signature of the Party

FORMAT FOR FURNISHING BANK INFORMATION FOR e-PAYMENT

1	Name and full address of the beneficiary	
2	Credit Account No. (Should be full 14 digit)	
3	Account Type (SB or CA or OD)	
4	Name of the Bank	
5	Branch (Full address with telephone No.)	
6	MICR code (Should be 9 digit)	
7	Telephone/Mobile/Fax No. of the beneficiary	Telephone :
		Mobile :
		Fax :
8	Cancelled Cheque	

Signature with seal
(Authorised Signatory)

FORM OF AGREEMENT
TO BE EXECUTED ON KERALA STAMP PAPER (Rs.200/-)

AGREEMENT NO. OF 2023

Sub: ""

THIS agreement is made at Cochin on day ofTwo thousand and Twenty two (..... -- 2023) between THE BOARD OF MAJOR PORT AUTHORITY FOR COCHIN PORT commonly known as COCHIN PORT AUTHORITY, a Body Corporate under the Major Port Authorities Act, 2021, with its Administrative Office at Willingdon Island, Cochin-682009, having PAN Card No. AAALC1134F, represented by its Chief Mechanical Engineer, Sri V. Thurai Pandian, S/o Sri.K.Vairava Sundaram, aged 57 years residing at 7D, DD Bhavanam, Vidya Nagar cross road, Kadavanthra, Kochi-682 020 (hereinafter referred to as "The Employer" which expression shall include their successors, assignees and administrators in the office) of the one part AND M/s. represented by Sri/Smt.. ----- aged ----- years, son/daughter of Sri. ----- residing at ----- (House name and No.) ----- District ----- State ----- (hereinafter referred to as "The Contractor" which expression shall include their successors, assignees and administrators) of the other part.

WHEREAS the "Employer" had called for the tenders for "" vide Tender Notice No. Dt: and the contractor had submitted a tender for the same giving the rates subject to the terms and conditions etc.

AND WHEREAS the said tender of the contractor has been accepted by the employer and a letter of acceptance No..... Dt: has been issued to the contractor accepting their tender subject to the "General Conditions of Contract", "Instructions to the Tenderers" and such other contract documents. And as per one of the terms of the above work order, an agreement has to be executed between the contractor and the employer.

NOW THESE PRESENT WITNESSES AS FOLLOWS:

- 1. The contractor hereby agrees to execute the work "....." as described in the schedule, its annexure etc. at the rates shown there under subject to the "General Conditions of Contract", 'Scope of work' and 'Technical Specifications' and all hereunto annexed within from the date of issue of Letter of Acceptance or in default to forfeit and pay to the employer the sum of money mentioned in the said conditions.

The contractor has furnished a Bank Guarantee for Rs..... (Rupeesonly)vide Bank Guarantee No. ----- Dated----- from -----, in lieu of Security Deposit for the due and proper fulfillment of the contract. The contractor further agrees that the aforesaid Bank Guarantee will be kept valid until one month beyond the expiry

of the Guarantee Period. The contractor also agrees that the Bank furnished in lieu of Security Deposit for the due and proper fulfillment of the contract will be suitably enhanced so as to cover 10% cost of any additional items/works that may be required for the proper completion of the contract or otherwise the employer can deduct such additional amounts towards Security Deposit from the Contractor's bills.

2. The following documents shall be deemed to form and be read and construed as part of this agreement viz:
- a) Cochin Port Authority's GeM Bid No. Dt:
 - b) Offer from M/s.No:..... dated.....
 - c) Cochin Port Authority's LoA No..... Dt:.....
 - d) This office e-mail letter dated and your reply through e-mail received on
3. The Conditions given in the LoA dated shall over-ride the general conditions given in the tender document, wherever they differ. Any of the counter terms and conditions of the contractor shall not be taken as terms and conditions of this contract/ agreement unless the CoPA in writing specifically agree to it.

IN WITNESS WHEREOF THE CONTRACTOR hereunto set his hand and seal on behalf of M/s.....And on behalf of the Board of Major Port Authority for Cochin Port, the Chief Mechanical Engineer has set his hand and seal and common seal of CoPA as has been hereunto affixed the day and year first written above.

Signed, sealed and delivered
by Shri. -----
of M/s -----

CONTRACTOR

(COMMON SEAL OF THE FIRM)

Signed and affixed seal in the presence of:

- 1) Signature with address:
- 2) Signature with address:

Signed, sealed and delivered by
The Chief Mechanical Engineer,
Cochin Port Authority on behalf of
Board of Major Port Authority
For Cochin Port.

EMPLOYER

Signed and affixed the common
seal of Board of Major Port Authority
For Cochin Port in the presence of

- 1)
- 2)

PROFORMA OF BANK GUARANTEE FOR SECURITY DEPOSIT
(TO BE EXECUTED ON STAMP PAPER WORTH RS.200/-)

GUARANTEE BOND NO.

In consideration of the THE BOARD OF MAJOR PORT AUTHORITY FOR COCHIN PORT commonly known as COCHIN PORT AUTHORITY (hereafter called the "Port Authority" which expression shall include their successors and assignees) having accepted the tender No. No..... dated submitted by M/s.....(hereinafter called "the said tender") for name of work"....." as per the Chief Mechanical Engineer, Cochin Port Authority's order No..... datedand having agreed to exempt M/s..... (hereinafter called as the "Contractor (s)" which expression shall include their successors and assignees) from the demand under the terms and conditions of the said tender and the agreement to be executed between the Port Authority and the said contractor and which shall include any amendments, alterations or additions made with the mutual consent between the parties (hereinafter called " the said agreement") of Security Deposit for the due fulfillment by the said contractor(s) of the terms and conditions contained in the said tender and Agreement, on production of a Bank Guarantee for **Rs.....** (Rupees).

1. We,..... (Name of Bank) (hereinafter referred to as "the Bank") do hereby undertake to pay to the Port Authority an amount not exceeding **Rs.....** (Rupeesonly) against any loss or damage caused to or suffered by the or would be caused to or suffered by the port Authority by reason of any breach by the said Contractor(s) of any of the terms or conditions contained in the agreement.
2. We, Bank Ltd., do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Port Authority stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding **Rs.....** (Rupees.....).
3. We,..... Bank Ltd., undertake to pay to the Port Authority any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the contractor(s) shall have no claim against us for making such payment.

4. We Bank Ltd., further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the Port Authority under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer – in – charge on behalf of the Port Authority certifies that the terms and conditions of the said agreement have been fully and properly carried out by the said contractor(s) and accordingly discharges this guarantee.

5. We,..... Bank Ltd., further agree with the Port Authority that the Port Authority shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Port Authority against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said contractor (s) or for any forbearance act or omission on the part of the Port Authority or any indulgence by the Port Authority to the said contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision, have effect of so relieving us.

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s).

7. We, Bank Ltd., lastly undertake not to revoke this guarantee except with the previous consent of the Port Authority in writing.

This guarantee shall be valid up to unless extended on demand by Port Authority. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to **Rs.....** (Rupees only).and unless in claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

Dated theday of

for Bank Ltd

PROFORMA OF JOINT VENTURE/CONSORTIUM AGREEMENT

(To be submitted on Non-judicial Stamp Paper of appropriate value)

This Joint Venture /Consortium Agreement is made and entered into on this day of2023 by and between (i) M/s. ...**(Name of the firm to be filled in)**....., (ii) M/s.....**(Name of the firm to be filled in)**....., , primarily for the work under the Cochin Port Authority.

All the partners of the Joint Venture /Consortium hereinafter individually referred to as the parties and collectively as the ‘Joint Venture/Consortium’.

1.0 Formation of Joint Venture/Consortium

1.1. (i) M/s.....**(Name of the firm to be filled in)** is engaged in**(Details of the works undertaken by the party)**

(ii) M/s..... **(Name of the firm to be filled in)** is engaged in
.....**(Details of the works undertaken by the party)**

(iii)

1.2. On behalf of Board of Trustees of Port of Cochin (hereinafter referred to as “Employer”), the Chief Mechanical Engineer, Cochin Port Authority has invited bids from the experienced, resourceful and bonafide Developers with proven technical and financial capabilities of executing the work of (herein after referred as “the project”).

1.3. The parties have been exploring together the ways and means of collaboration for the purpose of an offer to be made for the said project of the Cochin Port Authority and have mutually agreed to enter into a Joint Venture/Consortium Agreement to submit a common bid for the project and to carry out the project works in the event of award of the contract, in association with each other and (**.....Name of Partner to be filled in.....**) shall be the Lead Partner and (i) (**.....Name of Partner to be filled in.....**), (ii) (**.....Name of Partner to be filled in.....**),..... shall be the other partner(s).

NOW THEREFORE IT HAS BEEN AGREED TO BETWEEN THE PARTIES AS FOLLOWS

1.4. The Joint Venture/Consortium will be known as...(**.....Name of JV to be filled in.....**)and shall consist of (i) (**.....Name of the firm to be filled in.....**), (ii) (**.....Name of the firm to be filled in.....**), , parties to the present agreement.

1.5. The recitals are true and correct and form an integral part of this agreement and are representations of the parties to which they relate and have been relied upon by the parties to enter into the present agreement.

1.6. Notwithstanding the date of signature of this agreement, its effective date will be the date of submission of bid.

1.7. All costs incurred by the parties before the date of award of contract will be borne by the parties concerned. All costs in implementation of this Joint Venture/Consortium Agreement after award of contract till the expiry of this agreement will be borne by the parties as hereinafter provided.

- 1.8. The Joint Venture/Consortium will be dissolved and this agreement will cease to have effect on completion of this project, maintenance and fulfilment of all other conditions under the contract, upon receipt of payment of all amounts from the Employer and on settlement of accounts between the parties as hereinafter provided.
- 1.9. The contract, if awarded by the Employer, Letter of Acceptance shall be issued in the name of (...**Name of JV/Consortium to be filled in**....) and the Contract shall be signed by legally authorised signatories of all the parties.
- 1.10. All the parties of the JV/Consortium shall be jointly and severally liable during the bidding process and the bid document shall be signed by legally authorised signatory of all the parties.
- 1.11. The financial contribution of each partner to the JV/Consortium operation shall be:

(i) M/s..... (**Name of the partner to be filled in**) -

(ii) M/s..... (**Name of the partner to be filled in**) -

(iii)

- 1.12. All the parties of the JV/Consortium shall be jointly and severally liable for the execution of the project in accordance with the Contract terms, in the event of award of contract. The delineation of duties, responsibilities and scope of work shall be:
 - a) The Lead Partner, shall provide suitable experienced personnel at site, for general planning, site management and equipment operations, during entire period of contract execution.
 - b) (.....**Name of Partner to be filled in**.....) shall carry out the following works

 - c) (.....**Name of Partner to be filled in**.....) shall carry out the following works
 - d)
.....

- 1.13. The parties hereto agreed that each of them shall duly and properly perform all the functions and all costs related to their respective works.
- 1.14. The parties hereto shall be at liberty to enter into liaison work/correspondence with statutory and local authorities as the circumstances warrant individually or collectively.
- 1.15. It is hereby agreed and undertaken that, all the parties are jointly and severally liable to the “Board” of Port of Cochin for the performance of the contract.
- 1.16. Notwithstanding demarcation or allotment of work between JV/Consortium partners, JV/Consortium each partner shall be liable for non performance of the whole contract irrespective of their demarcation or share of work.
- 1.16. The Lead Partner shall be authorised to act on behalf of the JV/Consortium.

- 1.17. All the correspondences between the Employer and the JV /Consortium shall be routed through the Lead Partner.
- 1.18. The Lead Partner is authorized: (a) to submit bid, negotiate and conclude contract and incur all liabilities therewith on behalf of the partner(s) of the JV /Consortium during the bidding process; and (b) in the event of a successful bid, to incur liabilities and receive instructions for and on behalf of the partner(s) of the JV /Consortium and to carry out the entire execution of the contract including payment, exclusively through Lead Partner.
- 1.19. In the event of default of the Lead Partner, it shall be construed as default of the Developer/Contractor; and Employer shall be entitled to take action under relevant clause(s) of the Department Bid Document and/or Conditions of Contract.
- 1.20. All the parties of the JV/Consortium shall be jointly and severally liable for due performance, recourse/sanctions within the joint venture in the event of default of any partner and arrangements for providing the required indemnities.
- 1.21. The JV/ Consortium shall have a separate JV/Consortium Bank account (distinct from the Bank account of the individual partners) to which individual partners shall contribute their share capital / or working capital. The financial obligation of the consortium shall be discharged through the said JV/ Consortium Bank account only and also all payment received by consortium from the Cochin Port Authority shall be through that account only.

The parties hereto have mutually agreed to the terms and conditions set forth herein above and have assured each other to duly perform the reciprocal promises and obligations on either side for effective implementation of the JV/Consortium for proper and due completion of the works envisaged, in the event of award of contract to the JV/Consortium and have affixed their signature in this indenture on this theday of20...

(i) Signature

Name

Designation seal & Common seal of the firm

(ii) Signature

Name

Designation seal & Common seal of the firm

Witness 1

Witness 2

**PROFORMA OF POWER- OF-ATTORNEY FOR LEAD MEMBER OF JV/ CONSORTIUM
(NA)
(To be submitted on Non-judicial Stamp Paper of appropriate value)**

By this Power- of-Attorneyexecuted onthisday of(month) of 2023, we,

(i) (.....Name of legally authorized signatory of first partner to be filled in.....), (ii) (.....Name of legally authorized signatory of second partner to be filled in.....), hereby jointly authorize and agree the Lead Partner, M/s (.....Name of the lead partner to be filled in.....), (a) to submit bid, negotiate and conclude contract and incur all liabilities therewith on behalf of the partner(s) of the JV /Consortium during the bidding process; and (b) in the event of a successful bid, to incur liabilities and receive instructions for and on behalf of the partner(s) of the JV /Consortium and to carry out the entire execution of the contract including payment for the work of “ exclusively through Lead Partner.

(i) Signature
Name
Designation seal
&
Common seal of the firm

(ii) Signature
Name
Designation seal
&
Common seal of the firm

.....
.....

Signature, name and seal of the certifying authority/Notary Public.