



KAMARAJAR PORT LIMITED

(Formerly known as Ennore Port Limited)

[A Mini Ratna Government of India Undertaking]
Vallur (Post),
Chennai – 600 120.

e- Procurement Mode

Tender No.: KPL/OP/ ELE/10/2019

Tender for
Providing Illumination to the Coal Berth 3&4 at Kamarajar Port

THROUGH
E- PROCUREMENT ON WEBSITE eprocure.gov.in

Volume – I

Technical Bid

Due Date of Submission: 15.00hrs on 08.04.2020

Date & Time of opening: 15.30hrs on 09.04.2020

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DC - 1

KAMARAJAR PORT LIMITED
(A Mini Ratna Government of India Undertaking Company)

NOTICE INVITING TENDER

Tenders are invited in two cover system from the experienced contractors through e- procurement mode for the work of “**Providing Illumination to the Coal Berth 3&4 at Kamarajar Port**”. For more details visit Port website: www.ennoreport.gov.in or www.eprocure.gov.in or contact Deputy General Manager (C) at 044-27950029.

KAMARAJAR PORT LIMITED

NOTICE INVITING TENDER

Tender No. : KPL/OP/ ELE/10/2019

- 1.1 Sealed tenders are invited by Kamarajar Port Limited from reputed contractors for executing the work of “Providing Illumination to the Coal Berth 3&4 at Kamarajar Port” under two cover systems at an estimated cost of **Rs. 89.43Lakhs plus applicable GST through e-Procurement on website e-procure.gov.in.**
- 1.2 The complete tender document including drawing if any available on port website: www.ennoreport.gov.in / www.eprocure.gov.in and *Tenderers may submit the tender offer on or before the due date and time of submission in e-Procurement mode.*
- 1.3 Earnest Money should be reached to Kamarajar Port Limited on/before due date and time of submission of Tenders otherwise the tenders shall be rejected. **The firms registered with NSIC/MSME will be exempted from payment of EMD. The NSIC/ MSME firms should also register in `TReDS Portal.**
- 1.4 The offer (both Techno-Commercial & Price) must be valid for a minimum of 120days from the last date of submission of offer; otherwise the offer shall be rejected as non-responsive.
- 1.5 Biding is open to all eligible bidders meeting the eligibility criteria as defined in **Clause No.4** of instructions to Bidders. Bidders are advised to note the minimum qualification criteria specified below to qualify for the award of the contract.
- (a) i) Average annual financial turnover of the firm during the last three years ending 31.03.2019 should not be less than Rs. 26.83Lakhs.
- ii) Experience of having successfully completed similar works during last 7 years ending March – 2019 should be either of the following
- i. Three completed similar works each costing not less than Rs. 35.78Lakhs or
- ii. Two completed similar works each costing not less than Rs. 44.72Lakhs or
- iii. One completed similar work costing not less than Rs. 71.55Lakhs.

“Similar Works”

Having experience in Supply, installation, testing and commissioning of high mast towers with luminaries with MV and LV panels, LT UG cables and laying of UG cables etc. in Central/ State Government or Central/ State Public Sector undertakings/ Multi National company / Public limited company / Private limited companies/Commercial Complex / Institution/Hospitals etc. **The bidder shall have experience compulsorily in Supply, installation, testing and commissioning of high mast towers with luminaries and the**

submitted work order for substantiate the eligibility criteria does not consist high mast tower will not take up for further evaluation and the same will be summarily rejected. The documentary proof for meeting all eligibility criteria shall be copies notarized or in original.

Note: If the tenderer submits work orders containing combination of different works, then the relevant portion of the order (i.e) order value related to the similar works only will be taken for evaluation purpose of the “Eligibility Criteria”

The bidders should enclose the work order and completion certificate and other valid documents to substantiate their eligibility criteria and income tax returns along with profit and loss account statement and financial statement for substantiate the financial turnover. Otherwise, the bid will be summarily rejected.

- (b) The bidder shall have minimum valid contractor’s license – Grade A (Form EA) issued by Tamilnadu Government Electrical Licensing Board. The above said license issued by other state shall be summarily rejected. Having valid ‘GST No., ESI Reg. No and EPF Reg. No.,
- (c) Managerial /manpower requirement –The Bidder shall have the requisite personnel in permanent rolls of the firm/company.
- (d) Bidders who meet the minimum qualification criteria will be qualified only if their available bid capacity is more than the total bid value. The available bid capacity will be calculated as under.

Assessed Available Bid capacity = $A \times N \times 2 - B$, where

‘N’ = Number of years prescribed for completion of the subject contract i.e., (“06”months in the present case).

‘A’ = maximum value of Electrical works executed in any one year during last seven years (at current price level).

‘B’ = value at current price level of existing commitments and ongoing works to be completed in the next “06”months.

The Bidder shall furnish statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works preferably countersigned by the Engineer. The base year is 2018-2019.

Year before	Multiplying Factor
2018-19	1.00
2017-18	1.10
2016-17	1.21

2015-16	1.33
2014 – 15	1.46
2013 – 14	1.61
2012 – 13	1.77

- 1.6 Purchase / Price Preference: The firms registered with NSIC/MSME and government will give price preference as per the applicable norms given by GOI time to time.
- 1.7 The Employer / Board do not bind themselves to accept the lowest or any tender and reserve the right to accept any tender in part or to reject any tender without assigning any reason therefore.
- 1.8 Pre-bid meeting will be held with the representative of the firms. The prospective tenderer shall submit their queries in writing to **Deputy General Manager (C)** in connection with this tender well in advance, so that the queries can be attended to. The Pre-bid meeting will be held on **26.03.2020, 11.00Hrs** at Kamarajar Port Limited, Vallur (Post), Chennai – 600 120.
- 1.9 The due date of submission of offers will be **08.04.2020 at 15.00Hrs**, unless otherwise notified. In the event of changes in the schedules, the Kamarajar Port Limited will notify the same through its web site and also in writing only to those prospective bidders who have paid their cost of tender document as on the date of issue of notification.
- 1.10 If the offers are not received according to the instructions detailed here above, they shall be liable for rejection. The corrections and remarks shall be either type-written or must be in ink and duly authenticated.
- 1.11 The tenderer is responsible to download Addendums/ Amendments/ Errata/ replies to the queries of the tenderers etc. if any, issued by the employer, from web site before the submission of the tender. Any shortfall in submissions of the said Addendums/ Amendments/ Errata/ replies to the queries of the tenderers etc.
- 1.12 If the offers are not received according to the instructions details here above, they shall be liable for rejection.

Deputy General Manager (Civil)

SECTION – 1
INSTRUCTION TO BIDDERS
(ITB)

SECTION 1: INSTRUCTIONS TO BIDDERS**A.GENERAL****1. Scope**

Kamarajar Port Limited hereinafter termed “Employer” invites bids in two cover system. Bidders who fulfils the qualification criteria indicated in detail in clause 4 of section 1(ITB) for the “**Providing Illumination to the Coal Berth 3&4 at Kamarajar Port**” as defined in these documents, hereinafter referred to as “Works”. The works shall, inter alia, include the following, as specified or as directed.

The scope of work under this Tender includes:

1. Designing of High mast light towers of 20 Mtrs. height by providing the required nos. of LED Flood Light fittings.
2. Manufacture the entire high mast tower and transport it to site for installation.
3. Designing and providing suitable RCC foundation for the towers at Coal Berth 3&4, supplying all the civil materials, necessary workers and tools required for the above construction work and furnish all design calculation along with the drawing.
4. Designing and providing suitable foundation bolts and nuts for erection of high mast towers.
5. Erection of high mast towers on the foundation with required lighting systems. All the men, materials, cranes and tools required are included in the contractor’s scope of work for erecting the entire High mast towers.
6. Provision of inbuilt individual and dedicated lantern hoist / lower motorized winch unit along with manual operation facilities.
7. The mast structure shall have lightning protection confirm with relevant IS standards.
8. Provision of chemical earth pits for each high mast towers as per the specification.
9. All the components used in high mast towers shall conform to relevant standards and code as applicable.
10. Design, supply, install, test and commissioning of individual high mast tower control panel as per the specifications.
11. Installation, commissioning and guaranteeing of the entire high mast towers.

12. Design, supply, install, and commissioning the Outdoor pillar boxes as per the specifications.
 13. Supply, Laying, testing and commissioning of LTUG Cables from the existing indoor/outdoor pillar / panel boxes to the proposed pillar / panel boxes and from the Outdoor pillar / panel boxes to individual Highmast along with end termination of the LTUG cables.
 14. Supply, installation of chemical earthing for the outdoor pillar / panel boxes as per the specification.
 15. Design, supply, install, and commissioning the LED flood light luminaries as per the specifications.
- Any other works required for successful completion of the project.

2 Source of Funds:

- 2.1 The Employer has arranged the funds on their own and will have sufficient funds in Indian Currency for execution of the works.

3. Eligible Bidders

- 3.1 The invitation for Bids is open to all eligible bidders meeting the eligibility criteria as defined in clause no.4
- 3.2 All bidders shall provide in section 2, Forms of Bid and qualification Information, a statement that the Bidder is not associated, nor has been associated in the past, directly or indirectly, with the Consultant or any other entity that has prepared the design, specifications, and other documents for the Project Manager for the contract. A firm that has been engaged by the Employer to provide consulting services for the preparation or supervision of the works and any of its affiliates shall not be eligible to bid.
- 3.3 Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices issued by the employer in accordance with clause 37

4. Eligibility Criteria

- 4.1 Documentary proof such as work order & completion certificate, adequate financial statement, Valid Licence, adequate man power for meeting all the eligibility criteria for (a) to (d) shall be enclosed .

4.2 (a) Experience of having successfully completed similar works during last 7 years ending March – 2019 should be either of the following

- i. Three completed similar works each costing not less than Rs. 35.78 Lakhs or
- ii. Two completed similar works each costing not less than Rs. 44.72Lakhs or
- iii. One completed similar work costing not less than Rs. 71.55Lakhs.

“Similar Works”

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Note: If the tenderer submits work orders containing combination of different works, then the relevant portion of the order (i.e) order value related to the similar works only will be taken for evaluation purpose of the “Eligibility Criteria”

The bidders should enclose the work order and completion certificate and other valid documents to substantiate their eligibility criteria and income tax returns along with profit and loss account statement and financial statement for substantiate the financial turnover. Otherwise, the bid will be summarily rejected.

- (b)** Average annual financial turnover of the firm during the last three years ending 31.03.2019 should not be less than Rs. 26.83Lakhs.
- (c)** The bidder shall have minimum valid contractor’s license – grade A (Form EA) issued by Tamilnadu Goverment Electrical Licensing Board. The above said license issued by other state shall be summarily rejected. Having license, GST No., ESI Reg. No, and EPF Reg.No.
- (d)** Managerial /manpower requirement –The Bidder shall have the requisite personnel in their permanent rolls of the firm/company. (Enclose separately name, designation and length of service of the employee in the firm)
- (e)** Project planning and Quality control procedure to be adopted if applicable

- (f) Information regarding projects in hand, current litigation, orders regarding exclusion, expulsion or black listing, if any.
- 4.2 Sub-Contractors' experience and resources shall not be taken into account in determining the bidder's compliance with the qualifying criteria
- 4.3 Bidders who meet the minimum qualification criteria will be qualified only if their available bid capacity is more than the total bid value. The available bid capacity will be calculated as under.

Assessed Available Bid capacity = $A \times N \times 2 - B$, where

'N' = Number of years prescribed for completion of the subject contract i.e., ("06" months in the present case).

'A' = maximum value of Electrical works executed in any one year during last seven years (at current price level).

'B' = value at current price level of existing commitments and ongoing works to be completed in the next '06' months.

The Bidder shall furnish statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works preferably countersigned by the Engineer. The base year is 2018-2019.

Year before	Multiplying Factor
2018-19	1.00
2017-18	1.10
2016-17	1.21
2015 – 16	1.33
2014 – 15	1.46
2013 – 14	1.61
2012 – 13	1.77

4.4 Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:

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

ii. One Bid per Bidder

5.1 Each bidder shall submit only one bid for one package. A bidder who submits or participates in more than one Bid (other than as a subcontractor or in cases of alternatives that have been permitted or requested) will cause all the proposals with the Bidder's participation to be disqualified.

5.2 **Joint Venture – Not Applicable**

6. Cost of Bidding

6.1 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

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

B. BIDDING DOCUMENTS

8. Content of Bidding Documents

8.1 The set of bidding documents comprises the documents listed in the table below and addenda issued:

 Invitation for Bids (NIT)

SECTION	DETAILS
1	Instructions to Bidders
2	Forms of Bid and Qualification Information
3	Conditions of Contract
4	Contract Data
5	Specifications
6	Drawings
7	Bills of Quantities
8	Forms
9	Documents to be furnished by bidder

8.2 The bidder is expected to examine carefully all instructions, conditions of contract, contract data, forms, terms, technical specifications, bill of quantities, forms, drawings, annexure in the bid document. Failure to comply with the requirements of the bid document shall be at the bidder's own risk. Pursuant to clause 26 hereof, bids which are not substantially responsive to the requirements of the bid documents shall be rejected.

9. Clarification of the Bidding Documents

9.1 A Prospective bidder requiring any clarification of the bidding documents may notify the employer in writing or by electronic form and be confirmed by hard copy at the employer's address indicated in the invitation to bid. The employer will respond to any request for clarification which he received earlier than 7 days prior to the deadline for submission of bids. Copies of the Employer's response will be forwarded to all purchasers of the bidding documents, including a description of the enquiry but without identifying its source.

9.2 Pre-bid meeting

- 9.2.1.** The bidder or his official representative is invited to attend a pre-bid meeting which will take place at Kamarajar Port Limited, Vallur (Post), Chennai-600 120 on **26.03.2020** at 11 00 hours.
- 9.2.2.** The purpose of the meeting will be to clarify issues and to answer question on any matter that may be raised at that stage.
- 9.2.3.** The bidder is requested to submit any questions in writing or by fax to reach the Employer not later than one week before the meeting.
- 9.2.4.** Minutes of the meeting, including the text of the questions raised (without identifying the source of enquiry) and the responses given, any modification of the bidding documents listed in sub-clause 8.1 which may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to clause 10 and not through the minutes of the pre-bid meeting.
- 9.2.5.** Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

10. Amendment of Bidding Documents

- 10.1** Before the deadline for submission of bids, the employer may modify the bidding documents by using addenda.
- 10.2** Any addendum / corrigendum thus issued shall be part of the bidding documents and shall be published in the websites.
- 10.3** To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer shall extend as necessary the deadline for submission of bids.

C. PREPARATION OF BIDS

11. Language of the Bid

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

12. Documents comprising the Bid

- 12.1** The bid submitted by the bidder shall comprise the following:

A) Technical Bid

- i) Bid Security
- ii) Qualification Information Form and Document (pursuant to clause 4 hereof) and any other materials required to be furnished and submitted by the bidder in accordance with these instructions.

B) Financial Bid

- i) Priced Bill of Quantities duly filled in through **e-Procurement on website e-procure.gov.in.**

13. Bid Prices

13.1 The contract shall be for the whole works as described in **Sub-Clause 1.1**, based on the priced Bill of Quantities submitted by the Bidder.

13.2 The Bidder shall fill in rates and prices for all items of the works described in the Bill of Quantities. Items for which no rate or price is entered by the bidder will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.

13.3 **The basic rate shall be quoted in the BOQ as mentioned. The GST will be reimbursed by KPL on production of remittance only after ITC is reflected in KPL's GST portal. The Employer will perform such duties in regard to the deduction of such taxes at source as per applicable law. Any new taxes, levies, duties imposed after signing the contract shall be reimbursed by the employer on production of documentary evidence.**

13.4 The rates and prices quoted by the bidder shall be fixed for the duration of the Contract and shall not be subject to adjustment on any account. No escalation what so ever is not allowed

14. Currencies of Bid and payment

14.1 The Unit rates and the prices shall be quoted by the bidder entirely in Indian Rupees.

15. Bid Validity:

15.1 Bids shall remain valid for a period not less than 120 days after the deadline date for bid submission specified in Clause 20. A bid valid for a shorter period shall be rejected by the employer as non-responsive.

16. Bid Security (Earnest Money Deposit – EMD)

- (a).** The Earnest Money Deposit (EMD) should be Rs.1,79,000/- . The firms registered with MSME/NSIC will be exempted from payment of EMD and they should enclose the valid certificate. The NSIC/MSME firms should also register in TReDS Portal.
- (b).** The EMD shall be payable by DD only. The Earnest Money Deposit should be reach Kamarajar Port Limited on or /before 15 00 Hrs on 08.04.2020 with cover letter indicating Tender number, Name of work otherwise the tenders shall be rejected. The **EMD** shall be paid by demand draft in the name of “**Kamarajar Port Limited**” from any **Nationalized/Schedule Bank (except Cooperative Banks)** encashable at **Chennai**.
- (c)** EMD of unsuccessful bidders other than L1, L2 and L3 be refunded immediately after ranking of price bids. Earnest Money of L2 and L3 be refunded immediately after entering in to agreement with L1 and acceptance of performance Guarantee from L1.
- (d)** EMD be refunded suo-motto without any application from the bidders.
- (e)** The Bid Security of the successful bidder will be discharged after he has signed the Agreement and furnished the required performance security.
- (f)** The Bid Security may be forfeited, if
- a) If any tenderer withdraws his tender before the expiry of the validity period, or before the issue of letter of acceptance, whichever is earlier, or makes any modification in the terms and conditions of the tender which are not acceptable to KPL, then the KPL shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the earnest money absolutely.

- b) If contractor fails to furnish the prescribed performance guarantee within the prescribed period, the earnest money is absolutely forfeited automatically without any notice.
- c) If only a part of work as shown in the tender is awarded, and the contractor does not commence the work, the amount of the earnest money to be forfeited to KPL should be worked out with reference to the estimated cost of the work so awarded.
- d). In case of forfeiture of earnest money as prescribed above, the tenderer shall not be allowed to participate in the retendering process of the work.

17. Alternative Proposals by Bidders

17.1 Conditional offer or Alternative offers will not be considered further in the process of tender evaluation.

18. Offers without prescribed bidding documents of KPL.

The condition "Offer sent without having the prescribed bidding document of KPL and/or without complying with the terms and conditions of bidding document for submitting the offer, will be ignored straightway".

D. SUBMISSION OF BIDS

19. Sealing and Marking of Bids

19. Bidders shall submit their bid on online only through e-Procurement Mode.

19.1 The tenderer shall obtain e-token from a licensed Certifying Authority of National Information Centre (NIC) such as MTNL/SIFY/TCS / nCode / eMudhra to get access for Online Bid Submission through the e –Procurement site <https://eprocure.gov.in>

19.2 Tender document shall be submitted online only in the designated two cover system on the e-Tender website www.eprocure.gov.in on or before due date.

The following are the procedure for submission of tender through online.

- (i) Bidder should do the registration in the tender site using the “Click here to Enroll” option available.
- (ii) The Digital Signature registration has to be done with the e-token, after logging into the site.

- (iii) Bidder can use “My Space” area to update standard documents in advance as required for various tenders and use them during bid submission. This will facilitate the bid submission process by reducing time.
- (iv) Bidder should read the tenders published in the site and download the required documents / tender schedules for the tenders.
- (v) Bidder then logs into the site by giving the user id/password chosen during registration and password of the DSC/etoken.
- (vi) Only one DSC should be used for one bidder. If a bidder uses more than one DSC token, the bid would summarily be rejected.
- (vii) Bidder should read the Tender schedules carefully and submit the documents as per the Tender else the bid will be rejected.
- (viii) If there are any clarifications the same may be clarified during the pre-bid meeting.
- (ix) Bidder should take into account the corrigendum's if any published before submitting the bids online.
- (x) Bidder must in advance prepare the bid documents to be submitted as indicated in the tender schedule and they should be in the required format. If there are more than one document, they can be clubbed together.
- (xi) Bidder selects the tender which he is interested using search option & then moves it to the my favorites folder.
- (xii) From the folder, appropriate tender can be selected and all the details can be viewed.
- (xiii) The bidder should read the terms & conditions and accept the same to proceed further to submit the bids.
- (xiv) The bidder has to enter the password of the DSC / etoken and the required bid documents have to be uploaded one by one as indicated.
- (xv) The bidder has to submit the relevant files required as indicated in the cover content. In case of any irrelevant files, the bid will be rejected / will not be accepted by the system.
- (xvi) The rates should be offered in the format specified. (.xls format)
- (xvii) If the rates are not offered as per the given format the bid cannot be submitted / will not be accepted by the system.
- (xviii) Upon successful completion of the bid, the system will give a successful bid updation message, bid summary will be shown with the bid no., date & time of submission of the bid along with all other relevant details.
- (xix) The bid summary should be printed and kept as an acknowledgement.
- (xx) The bid summary will act as a proof of bid submission for the subject Tender.

- (xxi) For any clarifications regarding the Tender, the bid number can be used as a reference.
- (xxii) The bids should be submitted on or before the prescribed date & time.
- (xxiii) Each document to be uploaded online for the tenders should be less than 2 MB. If any document is more than 2MB, it can be reduced by scanning at low resolution and the same can be uploaded.
- (xxiv) The time settings fixed in the server side & displayed at the top of the tender site, will be valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system. The bidders should follow this time during bid submission.
- (xxv) All the data being entered by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered will not be viewable by unauthorized persons during bid submission & cannot be viewed by any one until the prescribed date & time of bid opening.
- (xxvi) The confidentiality of the bids would be maintained. Secured Socket Layer 128 bit encryption technology is used. Data storage encryption of sensitive fields is done.
- (xxvii) Any document that is uploaded to the server is subjected to symmetric encryption using a generated symmetric key. Further this key is subjected to asymmetric encryption using buyer's public keys. Overall, the submitted tender documents become readable only after the tender opening by the authorized individual.
- (xxviii) For any queries, the bidders are asked to contact by mail cphp-nic@nic.in or by phone 1-800-233-7315 well in advance

20. Deadline for Submission of Bids

20.1 **Bids** must be uploaded in the website www.eprocure.gov.in not later than the **15 00 Hours on 08.04.2020 and the technical bid will be opened on 09.04.2020 15 30Hrs.**

21. Late Bids

21.1 Any bid received by the Employer after the deadline for submission of bids will not be accepted.

22. Modification and Withdrawal of Bids

22.1 The tenderer may modify, substitute or withdraw their tender after submission by giving notice in writing before the deadline prescribed in **Clause 20 through e-Procurement Mode.**

E. Bid Opening and Evaluation

23 Bid Opening

23.1 On the due date and appointed time as specified in Clause 20, the Employer will first open Technical bids *in e- Procurement Mode* including modifications made pursuant to clause 22 in presence of the Bidders or their representatives who choose to attend. In the event of the specified date for Bid opening declared a holiday by the Employer, the Bids will be opened at the appointed time and location on the next working day. The tender will be opening at Kamarajar Port Limited, Administrative office, Vallur Post, Chennai-600 120.

24. Process to be Confidential

24.1 Information relating to the examination, clarification, evaluation and comparison of bids and recommendations for the award of a Contract shall not be disclosed to bidders or any other persons not officially concerned with such process until the award to the successful bidder has been announced.

25. Clarification of Bids / seeking compliance from bidders after tender opening

25.1 No clarification should be sought from the bidders, under any circumstances, once the bids are opened. However, with a view to widen competition, seeking confirmations from the bidders is allowed, on the issues where the bidder confirms compliance in the evaluation matrix and contradiction exists on the same issue due to lack of required supporting document in the bid (i.e document is deficient or missing) or due to some statement at other place of the bid (i.e reconfirmation of compliance) or vice versa. The bid refers to un-priced bid in the case of two cover system. The guiding principle in all the above situations is that the basic structure of the bid already submitted by the bidder should not be allowed to change after opening of bids.

25.2 Correspondence with bidders by indentors / users

All correspondence with the bidders must be done by tender processing group only. However, after award of contract, project manager has to interact with the contractor for execution of contract, provided the same does not result into modification of any condition of contract and does not involve any financial implications.

26. Examination of Bids and Determination of Responsiveness

26.1 Prior to detailed evaluation of Bids, the Employer will determine whether each bid (a) meets the eligibility criteria defined in clause 4. (b).has been properly signed by an authorized signatory (accredited representative) holding power of attorney in his favour. The power of attorney shall interalia include a provision to bind the bidder to settlement of disputes clause; (c) is accompanied by the required Bid Security and; (d) is responsive to the requirements of the bidding documents.

A substantially responsive technical and financial bid is one which conforms to all terms, conditions and specification of the bidding documents, without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality or performance of the works; (b) which limits in any substantial way, the employers rights or the bidders obligations under the contract; or (c) whose rectification would affect unfairly the competitive position of other bidders presenting responsive bids.

If a technical bid is not substantially responsive, it will be rejected by the employer and will not subsequently be made responsive by correction or with drawl of the non-conforming deviation or reservation.

27 Correction of Errors

Bids determined to be substantially responsive, will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows: a) Where there is discrepancy between the rates in figures and in words for any rate in the unit rate column, the amount in words will govern; and b) Where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern.

The amount stated in the Bid will be adjusted by the Employer in accordance with the above procedure for the correction of errors and, with the concurrence of the bidder, shall be considered as binding upon the bidder. If the bidder does not accept the corrected amount of bid, his bid will be rejected, and the bid security may be forfeited in accordance with the Clause.

28. BLANK

29. Evaluation and Comparison of Financial Bids

- 29.1 The Employer will evaluate and compare only the Bids determined to be responsive in accordance with Clause 26.
- 29.2 If the Bid of the successful Bidder is seriously unbalanced in relation to the Nodal Officer or his nominee's estimate of the cost of work to be performed under the contract, the Employer may require the Bidder to produce detailed price analyses for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those price with the implementation/construction methods and schedule proposed.

F. Award of Contract

30. Award of Work

30.1 Process for Award of work

- a) The tender offers received shall be studied in detail and a comparative statement of substantially responsive bids shall be prepared. A substantially responsive tender offer is one that conforms to all the terms, conditions and specifications included in tender documents, without material deviations or reservations. If any clarifications are required from the tenderer, the request and the response shall be in writing but no change in the price or substance of the tender offer shall be permitted. The comparative statement is checked and signed by all the members of the Tender Committee (TC).
- b) The comparative statement shall be in such a way that the rates are in comparable position as per the terms of tender enquiry without accepting any special conditions made by the parties. Variation, deviations, alternative offers and other factors which are in excess of the requirement of the tender documents or otherwise result in unsolicited benefits shall not be taken in to account in tender evaluation. However, appropriate adjustments may be considered for correction and errors (only arithmetical errors evident in the tender offers) and for acceptable variations, deviations, and discounts offered within tender requirements.
- c) Based on the comparative statement, L1, L2, L3.... Ln shall be determined and the rates of L1 shall be examined in detail with reference to the estimated rates. If L1 rates are reasonable the TC shall recommend the placement of order on L1 party.

- d) In the case of tender for pre-qualification bids, or technical bids, the comparative statements prepared shall show the position of the various parameters and commercial terms and the same shall be put up to TC for study and for recommendation. The recommendations of TC are put up to the Competent Authority for sanction. If, however, the terms and specification and other parameters are to be discussed with the parties, the TC shall do so before finalise their recommendations.

30.2 Guidelines for Award of work

The TC shall also prepare evaluation report comprising following procedure for evaluation. The report will be prepared by the TC. This committee will follow the following procedures for evaluation:

- i. Evaluation will be done only on the basis of set criteria which will be clearly stated in the bid documents. No document presented by the bidder after the closing date and time of the bid will be taken into account TC, unless it is of a purely technical nature which has no bearing financially on the contract and which does not seek major changes in technical specification given in the bid documents.
- ii. If a bidder offers a rebate unilaterally after the closing date and time of the bid, it will not be taken into account for evaluating purpose by the Tender Committee but if that bidder emerges as the lowest tender the rebate offered will be taken into account by the TC. The Tender Committee's recommendations shall be submitted by the coordinating officer to the competent Authority for its consideration for seeking its approval.
- iii. The tender committee's report will be self contained, clear and unambiguous. The TC must verify the documents meticulously and bring out all the deviation, if any.
- iv. If the prices quoted are above or below the cost estimate by a percentage considered abnormal say 25%, the tender committee will give the reasons for such variation. Cogent reasons will be given for rejecting/accepting bids as Non-responsive/responsive.

If the bid of the successful bidder is seriously unbalanced in relation to the company's estimate of the cost of work to be performed under the contract, the company may require the bidder to produce detailed price analysis for any or all

items of the tendered bill of quantities to demonstrate the internal consistency of these rates with the execution method and schedules proposed. After evaluation of the price analysis, the company may require that the amount of performance security is increased at the expense of the successful bidder to a level sufficient to protect the interest of the company against financial loss in the event of default of the successful bidder under the contract.

30.2.1 While studying various bids and recommending or rejecting any party, the TC shall keep in mind that though the company is not bound to accept any offers, even though lowest, at the same time the company must act in a reasonably bonafide way and not arbitrarily and the same should be on record. While studying the comparative statement and rates and conditions of the various parties, TC shall study the conditional offers also and make assessment of the various offers. The late offers received after opening of the tender shall not be opened and the same be returned. The delayed offers received by registered post after due date but posted before the due date may be considered for opening by TC subject to approval of competent authority.

30.2.2 During scrutiny/evaluation of tenders if the TC finds that the original tender enquiry terms need to be relaxed or tender specifications need to be changed. The TC shall recommend for revision of terms and re-tendering.

30.2.3 While studying the L1 rates with the estimates, if the TC finds that variations in the item rates are reasonably close to CPWD rates/estimated rates and /or past rates, L1 rates can be recommended.

30.2.4 If, however, L1 rates are much lower than the estimated rates say by 10% the TC shall examine to ensure, whether the rates are workable or not without compromising the quality and if required the rate analysis of the party shall be obtained and studied before recommending such offer. The TC shall also evaluate whether performance security provided in the tender documents, is enough or not prior to finalising its recommendations. The negotiations with the parties other than L-1 are disallowed as per latest instructions received from C.V.C.

30.2.5 If the rates of the lowest bidder are abnormally high/low (+/- 10% of the estimated rates), the TC shall study the viability of higher/lower rates and may ask lowest

bidder for submission of rate analysis. In case of higher rate quoted by lowest bidder, the TC recommend, if considered necessary, for negotiation with the L1 for reduction of the rates. If any such negotiation is to be conducted, the same shall be got approved by the Competent Authority before it is resorted to. For negotiation with the L1, TC shall follow the guidelines of Central Vigilance Commission, circular No. 4/3/07 Dtd. 3rd March, 2007, together with subsequent amendment, if any.

30.2.6 Circular No. 4/3/07 Sub : Tendering process – negotiation with L1.

1. i) As post tender negotiation could often be a source of corruption, it is directed that there should be no post tender negotiation with L1, except in certain exceptional situation. Such exceptional situation would include procurement of proprietary items, items with limited source of supply and items where there is suspicion of a cartel formation. The justification and details of such negotiation should be duly recorded and documented without any loss of time.
- ii) In case where a decision is taken to go for retendering due to the unreasonableness of the quoted rates, but the requirements are urgent and a retender of the entire requirement would delay the availability of the item, thus jeopardising the essential operation, maintenance and safety, negotiation would be permitted with L1 bidder(s) for the supply of a bare minimum quantity. The balance quantity should, however, be procured expeditiously through a re-tender, following the normal tendering process.
- iii) Negotiation should not be allowed to be misused as a tool for bargaining with L1 with dubious intention or lead to delays in decision making. Convincing reason must be recorded by the authority recommending negotiation. Competent authority should exercise due diligence while accepting the tender a tender or ordering negotiation or calling for a re-tender and a definite time for you should be indicated, so that the time taken for according requisite approval for the entire process of award of tenders does not exceed one month from the date of submission of recommendations. In case where the proposal is to be approved at higher level, a maximum of 15 days should be assigned for clearance at each level. In no case should the over all time frame exceed the validity period of the tender and it should be ensured that tenders are invariably finalised within their validity period.

- iv) As regards the splitting of quantities, some organisation had expressed apprehension that pre-disclosing the distribution of quantities in the bid document may not be feasible, as the capacity of the L1 form may not be known in advance. It may be stated that if, after due processing it is discovered that the quantity to be ordered is far from than what L1 alone is capable of supplying and there was no prior decision to split the quantities, then the quantity being finally ordered should be distributed amongst the other bidders in a manner that is a fair, transparent and equitable. It is essentially in cases where the organisation decides in advance to have more than one source of supply (due to critical or vital nature of the item) that the commission insists on pre –disclosing the ratio of splitting the supply in the tender itself. This must be followed scrupulously.
- v) Counter - offers to L1, in order to arrive at an acceptable price, shall amounts to negotiation. However, any counter offer thereafter to L2, L3 etc. (at the rates accepted by L1) in case of splitting of quantities, as pre-disclosed in the tender, shall not be deemed to be a negotiation.

2. It is reiterated that in case L1 backs out, there should be a re-tender.

- i). The recommendations of TC shall be signed by all of its constituents. Based on the TC recommendation the coordinating Officer concerned shall put up for the approval of Competent Authority.

31. Issue of Work Order:

31.1 Work order shall be issued by the appropriate authority to the PARTY and copies thereof shall be endorsed to all concerned Department including finance Department. After receipt of confirmation and performance security form the successful party, the appropriate authority shall intimate the finance to refund EMD received from other parties whose offers have not been considered.

31.2 Since the validity of the offer by the parties is for a limited period i.e. 120 days, the coordinating officer shall pursue the matter to ensure that the work order is issued in time. In the event of any delay likely to take place in releasing of work order extension of time if any shall be obtained in time from the bidder by the coordinating officer.

31.3 Contract register shall be maintained by the coordinating officer, wherein each contract/work order issued shall be entered. The serial number of the register shall be the contract number. The register shall contain the S.No., date, particulars of works, amount, name of the party to whom issued, unit, schedule date of completion, actual date of completion, actual final bill amount, signature of the concerned officer. At project also a similar register shall be maintained. The site record shall be maintained by the executive authority in respective mines. The site record includes site register, hindrance register and inspection and quality control register.

31.4 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 (a) eligible in accordance with the provision of clause 3 and (b) qualified in accordance with the provisions of clause (4). The second bidder (i.e.L2) shall be kept in reserve and may be invited to match the bid submitted by the (L1) bidder in case such bidder withdraws or is not selected for any reason.

32. Employer's Right to Accept any Bid and Reject Any or All

Notwithstanding Clause 31, the Employer reserves the right to accept or reject any bid and to cancel the bidding process and reject all bids, at any time prior to award of Contract, without thereby incurring any liability to the affected bidder or bidders on the grounds for Employer's action.

33. Notification of Award and signing of Agreement.

33.1 The bidder whose bid has been accepted will be notified of the award by the employer prior to expiration of the bid validity period by fax and confirmed by registered letter. This letter (hereinafter and in the Conditions of Contract called "the Letter of Acceptance") will state the sum that the Employer will pay the Contractor in consideration of the execution, completion and maintenance of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Contract called "the Contract Price").

33.2 The notification of award will constitute the formation of the contract, subject only to the furnishing of a performance security in accordance with the provisions of Clause 34.

- 33.3 The agreement will incorporate all correspondence between the employer and the successful bidder. It will be signed by the employer and sent to successful bidder within 14 days following the notification of award along with the letter of acceptance. Within 15 days of receipt, the successful bidder will furnish the performance security and sign the agreement with the employer.
- 33.4 Upon the furnishing by the successful bidder of the performance security, the employer will promptly notify the other bidders that their bids have been unsuccessful and release their bid security.

33.5 Repeat Order

i. Repeat orders will be avoided normally. If this is resorted to, in case of emergency, the decision in this regard will be taken by the Competent Authority who will have to satisfy himself that the rates are not showing any downward trend. The coordinating officer, shall, after seeking the approval of the Competent Authority, issue such repeat orders. The repeat orders may be placed, only once.

ii. No repeat order will be placed, if the earlier order was given on delivery preference basis or under special circumstances.

iii. In certain cases, where it is desirable to award the repeat order in the interest of the company it shall be ensured that the rates have not fallen down in the market and the administrative sanction for additional expenditure has been taken. A certificate shall be recorded in the file to the effect that the rates have not fallen down and the procedure of re-tendering, if resorted to, would not only delay the procurement but may not further result in obtaining the rates at par with the existing rates. The value of the repeat order shall not be more than 50% of the original order, approved by the Competent Authority.

33.5.1 Bank guarantee furnished by the Contractor should be unconditional and shall be in addition to performance guarantee, where ever applicable.

33.5.2 Before issuing the work order, the Company should include a condition to the contractor that in the event of failure of Contractor to perform the Contract in time due to certain force majeure beyond his control, then he (Contractor) should send a registered letter duly certified by the statutory authorities (certifying the mis-happenings i.e. natural, civil disturbance) within 10 days for such instances.

34. Performance Security

Security deposit shall consist of Performance Guarantee to be submitted at award of work.

34.1 Performance Guarantee should be 10% of contract price and should be submitted as bank guarantee or demand draft within 15 days of receipt of Letter of Acceptance and Security Deposit to be refunded immediately not later than 45 days from completion of defect liability period.

34.2 Failure of the successful bidder to comply with the requirements of sub clause 34.1 shall constitute sufficient grounds for cancellation of the award of work and forfeiture of the Bid Security.

35 Advance Payment - Not Applicable.**36. Conciliator**

The employer proposes that CIDC-SIAC arbitration centre be appointed as conciliator under the contract as provided in sub clause 24.1 of condition of contract. If the bidder disagrees with this proposal, the bidder should so state in the bid.

37. Corrupt or Fraudulent Practices:

37.1 The Employer requires that bidders / suppliers / contractors under this contract observe the highest standard of ethics during the procurement and execution of this contract,. In pursuance of this policy, the employer:

- (a) Defines, for the purpose of these provisions, the terms set forth below as follows:
 - i. "Corrupt practice" means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution; and
 - ii. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Employer, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition.

- (b). Will reject a proposal for award of work if he determines that the bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question.
- (c). Will declare a bidder ineligible, either indefinitely or for a stated period of time, to be awarded a contract / contracts if he at any time determines that the bidder has engaged in corrupt or fraudulent practices in competing for or in executing the contract.

37.2 Furthermore, bidder shall be aware of the provisions stated in Sub Clause 59.2 of the Conditions of Contract.

38 NOTIFICATIONS OF AWARD AND SIGNING OF AGREEMENT:

38.1 The bidder whose bid has been accepted will be notified of the award by the Employer prior to expiration of the Bid validity period by cable, telex or facsimile confirmed by registered letter. This letter (hereinafter and in conditions of Contract called the —letter of Intentl) will state the sum that the Employer will pay the Contractor in consideration of the execution, completion and maintenance of the works by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the —Contract Pricell). The notification of award will constitute the formation of the Contract subject only to the furnishing of a performance security. The Agreement will incorporate all correspondence between the Employer and the successful Bidder. It will be signed by the representative of the Employer as per DOP and sent to the successful bidder. Upon the signing of agreement by the successful Bidder, the Employer will promptly notify the L2Bidder that their Bids have been unsuccessful and release their Bid security.

38.2 The Successful Tenderers shall enter into an agreement in the form as prescribed in tender, within a period of 15 days from the date of receipt of the LOA.

The failure of the Successful Tenderer to comply with the requirements of Clause 38.2 shall constitute sufficient grounds for the annulment of the award of the Tender to it and shall also result in the forfeiture of the EMD by KPL. KPL may, at its discretion, thereafter accept the next suitable offer.

39. The Tender procedure manual and works manual July-2014 of KPL published in KPL website also be referred and become part of tender document. The General Financial Rules – 2017 and the two manuals viz procurement of goods 2017 and procurement of consultancy and other services 2017 issued by Government of India also be referred and become part of tender document.

SECTION 2

FORMS OF BID, QUALIFICATION INFORMATION AND LETTER OF ACCE2PTANCE.

TABLE OF FORMS

1. FORM OF BID
2. PREQUALIFICATION OF BIDDERS
3. LETTER OF ACCEPTANCE
4. NOTICE TO PROCEED WITH THE WORKS
5. AGREEMENT FORM

FORM OF BID

(To be executed on bidder's letter head)

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

Date: _____

Tender No.: KPL/OP/ELE/10/2019

Tender for “ Providing Illumination to the Coal Berth 3 & 4 at Kamarajar Port”.

To

THE DEPUTY GENERAL MANAGER (CIVIL),
KAMARAJAR PORT LIMITED,
VALLUR (POST),
CHENNAI-600 120.

Sir,

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Tendering Documents, including Addenda No.: [Number and issuing date of Addenda, clarifications issued after Pre-bid meeting along with minutes]
- (b) We offer to execute the work in conformity with the Tendering Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements in accordance with the tender documents bearing No.: KPL/OP/ELE/10/2019.
- (c) The total price of our Tender, excluding any discounts offered in item (d) below, is: (as filled in the price bid).
- (d) The discounts offered and the methodology for their application are:
Discounts: If our tender is accepted, the following discounts shall apply (as filled in the price bid).
- (e) Our tender shall be valid for the period of 120 days from the date fixed for the tender submission deadline and it shall remain binding upon us and may be accepted at any

time before the expiration of that period or any extended period in accordance with ITB sub-clause 15.1.

- (f) If our tender is accepted, we commit to submit a performance guarantee in accordance with clause no.34, sub-clause no.34.1 for the due performance of the contract as specified in specimen form for the purpose.
- (g) We, including any subcontractors or contractors for any part of the contract, (mention the nationality of the tenderer.
- (h) We have no conflict of interest in accordance with ITB sub clause no.5.
- (i) Our firm, its affiliates or subsidiaries-including any subcontractors or contractors for any part of the contract-has not been declared ineligible by the port, under laws of India or official regulations, in accordance with(ITB sub clause no.3)
- (j) We understand that this tender, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract Agreement is prepared and executed in accordance with (ITB clauseno.38) and as per specimen form the purpose.
- (k) We understand that you are not bound to accept the lowest evaluated tender or any other tender that you may receive.
- (l) We also make a specific note clause of (ITB, NIT) under which the contract is governed.
- (m) In case of out station firms, having a branch in India for liaison purposes, please mention the Name of the Contact person and Tel. no, Fax No. and mail-Id and also the complete postal Address of the firm.
- (n) We understand that the communication made with the Firm at (m), by the port shall be deemed to have been done with us.

Signed: (Signature of person whose name and capacity are shown)

In the capacity of: (Legal capacity of person signing the form of tender)

Name: (complete name of person signing the Form of Tender)

Duly authorized to sign the Tender for and on behalf of (complete name of tender)

Dated on..... day of(date of signing)

PRE-QUALIFICATION OF BIDDERS

The information to be filled in by the Bidder in the following pages will be used for purposes of Pre-Qualification as provided for in the Instructions to Bidders.

1. Only for Individual Bidders**1.1 Constitution or legal status of Bidder(attach copy)**

- Place of registration:
- Principal place of business
- Power of attorney of signatory of Bid (attach)

2. Turnover of the Firm

YEAR	TURN OVER
2018-2019	
2017-2018	
2016-2017	

Attachments : Financial reports for the last three years: balance sheets, profit and loss statements, auditors' reports (in case of companies / corporation) etc. List them below and attach copies.

3. Similar Works

Particulars	Year	No. of works	Name of works	Value
Total value of completed similar work as defined in the tender document during last 7 years.				

Attachments: Supporting documents, viz., successful completion certificates from clients, other documentations to substantiate the similarity of work as per definition of “similar Work”. Employers reserve the right to verify the information.

4. Information on Bid capacity (Works for which bids have been submitted and works which are yet to be completed) as on the date of this bid.

(A) Existing commitments and on-going works:

Description of work	Place & state	Contract No. & Date	Name and Address of Organisation	Value of Contract(Rs. in Million)	Stipulated period of completion	Value of remaining to be completed	Anticipated date of completion
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

(B) Works for which bids already submitted:

Description of work	Place & State	Name & Address of Organisation	Stipulated period of completion	Date when decision is expected	Remarks if any
(1)	(2)	(3)	(4)	(5)	(6)

- Attach certificates from the nodal officer or his nominees(s)-in-charge.

5. Qualifications and experience of key personnel proposed for administration and execution of the Contract. Attach biographical data. Refer also to Sub Clause 4.3(e) of instructions to Bidders and Sub Clause 9.1 of the Conditions of Contract.

Position	Name	Qualification	Years of experience	Years of experience in the proposed position

6. Proposed sub-contracts and firms involved

Sections of the works	Value of sub-contract	Name and address of the Sub-Contractor	Experience in similar work

7. Information on litigation history in which the Bidder is involved.

Other party(ies)	Port/Organisation	Cause of dispute	Amount	Remarks involved showing present status

8. Additional Information if any Bidder may like to submit

Duly authorized to sign this Authorization on behalf of (complete name of tenderer)

Dated on _____ day of _____, _____ (date of signing)

LETTER OF ACCEPTANCE

(On letter head paper of the port)

_____ (date)

To:

(Name and address of the contractor)

Dear Sirs,

Sub: Tender No: KPL/OP/ELE/10/2019

Title of the Tender: **“Providing Illumination to the Coal Berth 3 & 4 at Kamarajar Port”**

Ref: Your bid dated _____ and other correspondences if any

This is to notify you that your bid dated _____ for execution of the _____ (name of the contract) for the contract price of Rupees _____ (amount in words and figures as corrected and modified in accordance with the tender document) is hereby accepted by Kamarajar Port Limited.

You are here by requested to furnish performance security, in the form detailed in Tender Document for an amount of Rs. _____ within **15** days of the receipt of this letter of acceptance valid up to 28 days from the date of completion of all contractual obligations expiry of taking over certificate subject to removal of Defects Period i.e. up to _____ and also sign the contract agreement within _____ days of the receipt of this letter of acceptance, failing which action as stated in the tender document will be taken.

(Detailed Letter of Acceptance will follow.) Not Applicable.

Please acknowledge receipt.

Yours faithfully,

DEPUTY GENERAL MANAGER (CIVIL)

SPECIMEN CONTRACT AGREEMENT

(To be executed on Rs.100/--non-judicial Stamp Paper)

[The successful Tenderer shall fill in this form in accordance with the instructions indicated]

This CONTRACT AGREEMENT is made

The _____ day of _____ (month) TWO THOUSAND AND TWENTY

BETWEEN

1. The Board of Directors of Kamarajar Port Limited, under the Ministry of Shipping of the Government of India, incorporated under companies Act, 1956 under the Laws of India and having its principal place of business at VALLUR (POST), CHENNAI-120 (hereinafter called “the Port”) and
2. (Insert the name of the contractor) incorporated under] the laws of [country of contractor] and having its principal place of business at [address of contractor] (hereinafter called “the contractor”).

Whereas the Kamarajar Port Limited invited Tenders against tender no.: KPL/OP/ELE/10/2019 for execution of “**Providing Illumination to the Coal Berth 3 & 4 at Kamarajar Port**” and has accepted a Tender by the contractor in accordance with the supply/delivery schedules, in the sum of _____ [Contract Price in words and figures, expressed in the Contract currency(ies)] [hereinafter called “the Contract Price”] vide Work Order No.: _____ dated _____.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the conditions of contract referred to.
2. The following documents shall constitute the contract between the KAMARAJAR PORT LIMITED and the contractor, and each shall be read and construed as an integral part of the contract:
 - (a) This contract Agreement;
 - (b) Special Conditions of contract
 - (c) General conditions of contract;

- (d) Technical Requirements (including schedule of Requirements and Technical Specifications, drawings);
- (e) Notice inviting tender;
- (f) Replies issued to the pre-bid queries, addenda if any issued [Numbers and dates];
- (g) The contractor's Bid and original price and Delivery schedules;
- (h) The Employer/Board's Notification of Award;
- (i) Correspondence the Employer/Board had exchanged with the bidder till and after award of contract [specific letters and dates]

AND WHEREAS

KAMARAJAR PORT LIMITED accepted the Bid of CONTRACTOR for the provision and the execution of WORK at the CONTRACT PRICE as indicated in CONTRACT upon the terms and subject to the conditions of Contract. Now this CONTRACT AGREEMENT witnesseth and it is hereby agreed and declared as follows:

In consideration of the payment to be made to CONTRACTOR for WORK to be executed by him, CONTRACTOR hereby Covenants with KAMARAJAR PORT LIMITED that CONTRACTOR shall and will duly provide, execute and complete work and things in CONTRACT, mentioned or described or which are to be implied there from or may be reasonably necessary for completion of work and at the times and in the manner and subject to the terms and conditions or stipulations mentioned in CONTRACT.

3. In consideration of the due provision, execution and completion of WORK by the CONTRACTOR in accordance with the terms of the CONTRACT, KAMARAJAR PORT LIMITED does hereby agree with CONTRACTOR that KAMARAJAR PORT LIMITED will pay to contractor the respective amounts for the work actually done by him and approved by Kamarajr Port Limited as per payment Terms accepted in CONTRACT and payable to CONTRACTOR under provision of contract at such time and at such manner as provided for in the CONTRACT.

AND

In consideration of the due provision, execution and completion of WORK, CONTRACTOR does hereby agree to pay such sums as may be due to KAMARAJAR PORT LIMITED for the services rendered by KAMARAJAR PORT LIMITED to Contractor as set forth in CONTRACT and such other sums as may become payable to

KAMARAJAR PORT LIMITED towards loss, damage to the KAMARAJAR PORT LIMITED's equipment, materials etc. and such payments to be made at such time and in such manner as is provided in the CONTRACT.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of [India] on the day, month and year indicated above.

For and on behalf of the Kamarajar Port Limited

Signed:

In the presence of

Witness:

For and on behalf of the Contractor

Signed:

Designation:

In the presence of

Witness:

SECTION – 3
CONDITIONS OF CONTRACT

Conditions of Contract

A. General

1. Definitions

1.1 Terms which are defined in the Contract Data are not also defined in the Conditions of Contract but keep their defined meanings. Capital initials are used to identify defined terms.

The conciliator is the person appointed jointly by the employer and the contractor to resolve disputes in the first instance as provided for in clauses 24 and 25. The names of the Adjudicator are defined in the contract data.

Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid.

Compensation Events are those defined in Clause 44.

The **Completion Date** is the date of completion of the Works as certified by the Engineer in accordance with Sub Clause 55.1.

The **Contract** is the contract between the Employer and the Contractor to execute, complete and maintain the Works. It consists of the documents listed in Clause 2.3 below.

The **Contract Data** defines the documents and other information, which comprise the Contract.

The **Contractor** is a person or corporate body who's Bid to carry out the Works has been accepted by the Employer.

The **Contractor's Bid** is the completed Bidding document submitted by the Contractor to the Employer.

The **Contract Price** is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.

Days are calendar days; **months** are calendar months.

A **Defect** is any part of the Works not completed in accordance with the Contract.

The **Defects Liability Period** is the period named in the Contract Data and calculated from the Completion Date.

The **Employer** is the party who will employ the Contractor to carry out the Works. (Kamarajar Port Limited - KPL).

The **Engineer** is the person named in the Contract Data (or any other competent person appointed and notified to the contractor to act in replacement of the Engineer) who is responsible for supervising the Contractor, administering the Contract, certifying payments due to the Contractor, issuing and valuing Variations to the Contract, awarding extensions of time, and valuing the Compensation Events.

Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

The **Initial Contract Price** is the Contract Price listed in the Employer's Letter of Acceptance.

The **Intended Completion Date** is 6 months from the start date.

Materials are all supplies, including consumables, used by the contractor for incorporation in the Works.

Plant is any integral part of the Works which is to have mechanical, electrical, electronic or chemical or biological function.

The **Site** is the area defined as such in the Contract Data.

Site Investigation Reports are those, which were included in the Bidding documents and are factual interpretative reports about the surface and sub-surface conditions at the site.

Specification means the Specification of the Works included in the Contract and any modification or addition made or approved by the Engineer.

The **Start Date** is 14 days from the date of intimation of acceptance of the tender.

A **Subcontractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.

Temporary Works are works designed, constructed, installed, and removed by the Contractor, which are needed for construction or installation of the Works.

A **Variation** is an instruction given by the Engineer, which varies the Works.

The **Works** are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in the Contract Data.

The **Trained work person** are those employed/proposed to be employed by the contractor at the project site, who have participated and are in possession of a valid competency certificate through a programme run under the auspices of a University, State Technical Board, Ministry of Government of India.

2. Interpretation

2.1 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 will provide instructions clarifying queries about the Conditions of Contract.

2.2 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).

2.3 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 Contractor's Bid
- (3) Contract Data
- (4) Conditions of Contract including Special Conditions of Contract
- (5) Specifications
- (6) Drawings
- (7) Bill of Quantities
- (8) Any other document listed in the Contract Data as forming part of the Contract.

3. Language and Law

3.1 The language of the Contract and the law governing the Contract are stated in the Contract Data.

4. Engineer's Decisions

4.1 Except where otherwise specifically stated, the Engineer will decide contractual matters between the Employer and the Contractor in the role representing the Employer.

5. Delegation

5.1 The Engineer may delegate any of the duties and responsibilities to other people except to the conciliator after notifying the Contractor and may cancel any delegation after notifying the Contractor.

6. Communications

6.1 Communications between parties which are referred to in the conditions are effective only when in writing. A notice shall be effective only when it is delivered (in terms of Indian Contract Act 1872).

7. Joint venture - Not Applicable.

8. Subcontracting

8.1 The Contractor may subcontract with the approval of the engineer but may not assign the contract without the approval of the employer in writing.

Subcontracting does not alter the Contractor's obligations.

8.2 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors. The Contractor shall as referred to in the Contract Data, also provide facilities and services for them as described in the Schedule. The employer may modify the schedule of other contractors and shall notify the contractor of any such modification.

9 Personnel

9.1 The contractor shall employ following technical staff during the execution of this work:

Sl.No	Requirement of Technical staff	Minimum Experience	Designation
1	Site Engineer(Civil & Electrical separately) with Engineering	5years	Technical Representative
2	Electrician with ITI certificate	5 years	Technical Representative

Notes:

a. 'Contract period' indicated, in table above, should not be considered as standard schedule.

b. Rate of recovery in case of non compliance of clause 9.1 shall recovered from the contractor's bills at following rates

Sl.No	Requirement of Technical staff	Rate of recovery
1	Site Engineer (Civil & Electrical separately)	Rs.10,000/-p.m
2	Electrician	Rs.5000/-p.m

9.2 The technical staff should be available at site, at all times during the course of execution of work. He will take instructions from the Engineer-in-charge as and when required by him.

10. Employer's and Contractor's Risks

10.1 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.

11. Employer's Risks

11.1 The Employer's risks are

- (a) in so far as they directly affect the execution of the Works in the country where the permanent works are to be executed,
 - (i) the risks of war, hostilities, invasion, act of foreign enemies, (ii) rebellion, revolution, insurrection or military or usurped power, civil war,
 - (ii) ionizing radiations, or contamination by radioactivity from any nuclear fuel or from any nuclear waste , from the combustion of nuclear fuel, radioactive toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof.
 - (iii) Pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds and
 - (iv) Riot commotion or disorder unless solely restricted to the employees of the contractor or of his subcontractors and arising from the conduct of the works.
 - (v) Floods, tornadoes, earthquakes and land slides
- (b) 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.
- (c) 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
- (d) Any operation of forces of nature (in so far as it occurs on the site) which 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.

12. Contractor's Risks

- 12.1** 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.

13. Insurance

Without limiting his obligation and responsibilities under clause 11 – ‘Employer’s Risk’ and Clause 12 – ‘Contractor’s Risks’ hereof, the contractors shall insure in the joint names of the Employer and the contractor against all loss or damage from whatever cause arising (other than the Employer’s Risks) for which he is responsible under the terms of the contract and in such manner that the Employer and contractor are covered during the period of construction and the works are also covered during the period of maintenance (Defect liability) for loss or damage arising from a cause occurring prior to the commencement of the period of maintenance for loss or damage arising from a cause occurring prior to the commencement of the period of maintenance and for any loss or damage occasioned by the contractor in the course of any operations carried out by him for the purpose of complying with his obligations under clauses 13.7.

- i. The works and the temporary works shall be insured to the full value of such works executed from time to time.
- ii. The materials, constructional plant and other things brought on to the site by the contractor to the full values of such materials, constructional plant and other things.
- iii. As in case of sinking of constructional plant and equipment for the cost of salvage of the same as assessed by the port, such insurance shall be effected with an insurer and in terms approved by the Engineer. The contractor shall whenever required, produce to the Engineer or Engineer’s representative, the

policy or policies of insurance and the receipts for payment of the current premium provided always that without limiting his obligations and responsibilities as aforesaid, nothing in the clause contained shall render the contractor liable to insure against the necessity for the repair reconstruction of any work with the materials or workmanship not in accordance with the requirements of the contract.

- iv. The contractor has to take **contractor's all risk (CAR) insurance** for the value equal to the contract price.

13.1 Urgent works and / or repairs:

If by reason of any accident or failure or other event occurring to or in connection with the works or any part thereof either during the execution of the works or during the period of maintenance and remedial or other work, repairs shall in the opinion of the Engineer or the Engineer's representative be urgently necessary for security and the contractor is unable or unwilling at once to do such work or repair, then the Employer may by his own or other workmen do such work or repair as the Engineer or the Engineer's Representative may consider necessary. If the work or repair so done by the Employer is work which in the opinion of the Engineer, the contractor is liable to do at his own expense under the contract, all costs and charges properly incurred by the employer in so doing shall on demand be paid by the contractor to the Employer or may be deducted by the employer from any moneys due or which may become due to the contractor. The port also reserves the right, to en cash the Bank Guarantee deposited in the KPL favour towards security deposit for recovering the dues, claims, charges etc., payable to the Trust by the Contractor. Provided always that Engineer's representative (as the case may be) shall as soon after the occurrence of any such emergency as may be reasonably practicable, notify the contractor thereof in writing.

13.2 Third Party Insurance

Before commencing the execution of the works, the contractor but without limiting his obligation and responsibilities under clause 13.5 hereof shall insure against any damage, loss or injury which may occur to any property (including that of the

Employer or to any person including any employee) if the employer by or arising out of the execution of the works in carrying out of the contract otherwise that due to the matter referred in the provision to clause 13.4.

13.3 Minimum amount of the Third Party Insurance

Such insurance shall be effected with an insurer and in terms approved by the Employer and the contractor shall whenever required produce to the Engineer or the Engineer's representative, the policy or policies of insurance and the receipts for payment of the current premiums.

13.4 Accident or injury to workmen

The Employer shall not be liable for or in respect of any damages or compensation payable at law in respect or in consequence of any accident or injury to any workmen or other persons in the employment of the contractor and the contractor shall indemnify and keep indemnified, the Employer against all such damages and compensation and against all claims, demands, proceedings, cost, charges and expenses whatsoever in respect thereof or in relation thereto.

13.5 Insurance against accident etc., to workmen

The contractor shall continue such insure against such liability with an insurer approved by the employer and shall continue such insurance during the whole of the time that any person or employed by him on the works and shall when required produce to the Engineer or the Engineer's representative such policy of insurance and the receipt for payment of the current premium provided always that in respect or any persons employed by any subcontractor, the contractor's obligation to insure as aforesaid under this sub clause, shall be satisfied if the subcontractor shall require such sub contractor to produce to the Engineer or Engineer's representative when required, such policy of insurance and the receipt for payment of the current premium.

13.6 Remedy of Contractor's failure to insure:

If the contractor shall fail to effect and keep in force the insurance referred to in the clauses 13, 13.2, 13.3 & 13.5 above hereof or any other insurance which he may be

required to effect under the terms of the contract then, and in any such case, the employer may effect and keep in force any such insurance and pay such premium or premium as may be necessary for that purpose and from time to time deduct the amount so paid by the Employer with interest as stated below from any moneys due or which may become due to the contractor or recover the same as a debt due from the contractor at the rate of 3% above the prevailing Bank rate of 11% or as announced by the Reserve Bank of India from time to time under section 49 of Reserve Bank of India Act, 1934.

13.7 Compliance with Rules and Regulations:

The contractor shall at all times during the currency of the contract conform to and comply with the regulations and by-laws of the State or Central Government or of the KPL and off all other local authorities, the provisions, contained in the various labour acts enacted by the State Legislature and Central parliament in force and the rules made there under the said act, Health and Sanitary arrangements for worker and safety code and the Contract (Regulation and Abolition) Central Rules 1971 etc. for welfare and protection of workers or for the safety of the public and other insurance provisions. The KPL shall not be liable for the failure of the contractor in conforming to the provisions of the Acts, Rules and Regulations referred to in the above para and in case of any contravention of the provision of the Acts, Rules and Regulations etc. the contractor shall keep the KPL indemnified against any loss, cost and damages in the event of any action being taken for contravention.

14. Site Investigation Reports

14.1 The Contractor, in preparing the Bid, shall rely on the site Investigation Report referred to in the Contract Data, supplemented by any information available to the Bidder.

15. Queries about the Contract Data

15.1 The Engineer will clarify queries on the Contract Data.

16. Contractor to Construct the Works

16.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.

17. The Works to Be Completed by the Intended Completion Date

17.1 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, and complete them by the Intended Completion Date.

18. Approval by the Engineer

18.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Engineer, who is to approve them if they comply with the Specifications and Drawings.

18.2 The Contractor shall be responsible for design of Temporary Works.

18.3 The Engineer's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

18.4 BLANK

18.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Engineer before their use.

19. Safety

19.1 The Contractor shall be responsible for the safety of all activities on the Site.

20. Discoveries

20.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site is the property of the Employer. The Contractor is to notify the Engineer of such discoveries and carry out the Engineer's instructions for dealing with them.

21. Possession of the Site

21.1 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

22.1 The Contractor shall allow the Engineer and any person authorized by the Engineer access to the Site, 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.

23. Instructions

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

24. Disputes

24.1 If the Contractor believes that a decision taken by the Engineer was either outside the authority given to the Engineer by the Contract or that the decision was wrongly taken, the decision shall be referred to the Conciliator within 28 days of the notification of the Engineer's decision.

25. Settlement of Disputes

25.1 If a dispute of any kind whatsoever arises between the employer and the contractor in connection with , or arising out of the contract or the execution of the works, whether during the execution of the works or after their completion and whether before or after repudiation or after termination of the contract, including any disagreement by either party with any action, inaction, opinion, instruction, determination, certificate or valuation of the engineer, the matter in dispute shall, in the first place be referred to the Disputes Review Board (DRB) in case of contracts valuing more than Rs.5 crores and above, and for contracts valuing less than Rs.5 crores, the disputes will firstly be settled by the conciliator, failing which any party may invoke arbitration clause.

Unless the contract has already been repudiated or terminated or frustrated the contractor shall in every case, continue to proceed with the works with all due diligence and the contractor and the employer shall give effect forthwith to every decision of the engineer unless and until the same shall be revised, as hereinafter provided, by the conciliator or in a Dispute Review Board Recommendation / Arbitral award .

25.2 Decision by Conciliator

- i) The Conciliator shall give a decision in writing within 28 days of receipt of a notification of a dispute.
- ii) Conciliator shall be paid daily at the rate specified in the Contract Data together with reimbursable expenses of the types specified in the Contract Data and the cost shall be divided equally between the Employer and the Contractor, whatever decision is reached by the conciliator. Either party may refer a decision of the conciliator within 28 days of the conciliator's written decision. If neither party refers the disputes to arbitration within 28 days, the conciliator's decision will be final and binding.

25.3 Arbitration

Any dispute in respect of in respect of contracts where party is dissatisfied by the conciliator's decision shall be decided by arbitration as set forth below:

- i. A dispute with dispute review expert shall be finally settled by arbitration in accordance with the Indian Arbitration and Conciliation Act, 1996, or any statutory amendment thereof. The arbitral tribunal shall consist of 3 arbitrators, one each to be appointed by the employer and the contractor, and the third to be appointed by the mutual consent of both the arbitrators, failing which by making a reference to CIDC-SIAC Arbitration Centre from their panel.
- ii. Neither party shall be limited in the proceedings before such arbitrators to the evidence nor did arguments already put before the Engineer or his nominee or the board, as the case may be, for the

- purpose of obtaining said recommendations/decision. No such recommendations/decision shall disqualify the Engineer or his nominee or any of the members of the Board, as the case may be, from being called as a witness and giving evidence before the arbitrators or any matter whatsoever relevant to the dispute.
- iii. The reference to arbitration shall proceed notwithstanding that the works shall not then be or be alleged to be complete, provided always that the obligations of the employer, the Engineer or his nominee and the contractor shall not be altered by reason of the arbitration being conducted during the progress of the works. Neither party shall be entitled to suspend the works to which the dispute relates, and payment to the contractor shall be continued to be made as provided by the contract.
- iv. If one of the parties fails to appoint its arbitrators in pursuance of sub-clause[i], within 14 days after receipt of the notice of the appointment of its arbitrator by the other party, then chairman of the nominated institution shall appoint arbitrator within 14 days of the receipt of the request by the nominated institution. A certified copy of the chairman's order, making such an appointment shall be furnished to both the parties.
- v. Arbitration proceedings shall be held at, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be 'English'.
- vi. The decision of the majority of arbitrators shall be final and binding upon both parties. The expenses of the arbitrators as determined by the arbitrators shall be shared equally by the employer and the contractor. However, the expenses incurred by each party in connection with the preparation, presentation, etc. of its case prior to, during and after the arbitration proceedings shall be borne by each party itself.
- vii. All arbitration awards shall be in writing and shall state the reasons for the award.

- viii. Performance under the contract shall continue during the arbitration proceedings and payments due to the contractor by the employer shall not be withheld, unless they are subject matter of the arbitration proceedings.
- ix. The venue of the arbitral proceedings shall be Chennai. The courts in Chennai shall have exclusive jurisdiction to decide all Disputes arising out of or under this Contract.

26. Replacement of Conciliator

26.1 Should the conciliator resign or die, or should the employer and the contractor agree that the conciliator is not fulfilling his functions in accordance with the provisions of the contract; a new conciliator will be jointly appointed by the employer and the contractor. In case of disagreement between the employer and the contractor, within 30 days the conciliator shall be appointed by the appointing authorities designated in the contract data at the request of either party within 14 days of receipt of such request.

B. Time Control

27. Program

- 27.1** Within the time stated in the Contract Data the Contractor shall submit to the Engineer for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works along with monthly cash flow forecast.
- 27.2** An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work including any changes to the sequence of the activities.
- 27.3** The Contractor shall submit to the Engineer, for approval, an updated Program at intervals no longer than the period stated in the Contract Data. If the Contractor does not submit an updated Program within this period, the Engineer may withhold the amount stated in the Contract Data from the next

payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted.

27.4 The Engineer's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Engineer again at any time. A revised Program is to show the effect of Variations and Compensation Events.

28. Extension of the Intended Completion Date

28.1 The Engineer shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued 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.

28.2 The Engineer shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Engineer for a decision upon the effect of a Compensation Event or Variation 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.

29. The Early Warning provisions shall be as per Clause 32.

30. Delays Ordered by the Engineer

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

31. Management Meetings

31.1 Either the Engineer or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.

31.2 The Engineer shall record the business of management meetings and is to provide copies of his record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken is to be decided by the Engineer either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

32. Early Warning

32.1 The Contractor is to warn the Engineer 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 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.

32.2 The Contractor shall cooperate with the Engineer 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.

32.3 The Defect Liability Period for the contract shall be 12 months from the completion date mentioned in completion certificate.

C. Quality Control

33. Identify Defects

33.1 The Engineer shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Engineer may instruct the Contractor to search for a Defect and to uncover and test any work that the Engineer considers may have a Defect.

34. Tests

34.1 If the Engineer instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect the test shall be a Compensation Event.

34.2 **The contractor shall carry out the third party agency (i.e Government / Public Sector Undertaking agencies only) inspection before delivery of the material for the items as mentioned in section-5 to the site and the same to be witnessed by KPL's representatives. The cost for the third party inspection agency and the KPL's representative expenses including transportation etc shall be borne by the contractor. The approval for the selection of third party inspection agency shall be obtained from KPL. Before, third party inspection, quality assurance plan approval according to the technical specifications shall be obtained from KPL.**

35. Correction of Defects

35.1 The Engineer shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion and is defined in the Contract Data. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

35.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Engineer's notice.

36. Uncorrected Defects

36.1 If the Contractor has not corrected a Defect within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect corrected, and the Contractor will pay this amount.

D. Cost Control**37. Bill of Quantities**

37.1 The Bill of Quantities shall contain items for the Design, construction, supply, installation, testing and commissioning work to be done by the Contractor.

37.2 The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.

38. Changes in the Quantities

38.1 If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than (+)25 percent provided the change exceeds +10% of initial Contract Price, the Engineer shall adjust the rate(s) to allow for the change.

38.2 The Engineer shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 percent, except with the Prior approval of the Employer.

38.3 If requested by the Engineer where the quoted rate(s) of any item(s) is abnormally high, the contractor shall provide the Engineer with a detailed cost breakdown of such rate in the Bill of Quantities.

39. Variations

39.1 All Variations shall be included in updated Programs produced by the Contractor.

40. Payments for Variations

40.1 Variation permitted shall not exceed +25% in quantity of each individual item, and +10% of the total contract price. Within 14 days of the date of instruction for executing varied work, extra work or substitution, and before the commencement of such work, notice shall be given either (a) by the

contractor to the employer of his intention to claim extra payment or a varied rate or price, or (b) by the employer to the contractor of his intention to vary rate or price.

40.2 For items not existing in the bill of quantities or substitution to items in the bill of quantities, rate payable should be determined by methods given below and in the order given below.

i). Rates and prices in contract, if applicable.

ii). Rates and prices in the schedule of rates applicable to the contract plus ruling percentage.

iii). Market rates of materials and labour, hire charges of plant and machinery used, plus 10% for overheads and profits of contractor.

40.3 For items in the bill of quantities but where quantities have increased beyond the variation limits, the rate payable for quantity in excess of the quantity in the bill of quantity plus the permissible variation should be

i). Rates and prices in contract, if reasonable, failing which (i) and (ii) below will apply.

ii) Rates and prices in the schedule of rates applicable to the contract plus ruling percentage.

iii). Market rates of material and labor, hire charges of plant and machinery used plus 15% for overheads and profits of contractor.

40.4 If there is delay in the employer and the contractor coming to an agreement on the rate of an extra item, rates as proposed by the employer shall be payable provisionally till such time as the rates are finally determined or till date mutually agreed.

40.5 If the Engineer decides that the urgency of varying the work prevent a quotation being given and considers not delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.

41. Cash flow forecasts

- 41.1** When the Program is updated, the contractor is to provide the Engineer with an updated cash flow forecast.

42. Payment Certificates

- 42.1** The Contractor shall submit to the Engineer monthly statements of the estimated value of the work completed less the cumulative amount certified previously.
- 42.2** The Engineer shall check the Contractor's monthly statement within 14 days and certify the amount to be paid to the Contractor after taking into account any credit or debit for the month in question in respect of materials for the works in the relevant amounts and under conditions set forth in sub clause 51(3) of the contract data (Secured advance).
- 42.3** The value of work executed shall be determined by the Engineer.
- 42.4** The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed.
- 42.5** The value of work executed shall include the valuation of Variations and Compensation Events.
- 42.6** The Engineer may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

43. Payments

- 43.1** 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, and signed by both contractor and Employer shall be followed.

For supply items, 60% of payment (quoted value) shall be made against completion of entire material supply and acceptance of the material at site on

submission of invoice and balance **40% of payment** shall be made after completion of erection, testing and commissioning of each item of work.

For other than supply items, 100% of payment shall be made after completion of erection, testing and commissioning of each item of work.

- 43.2** 60% of bill amount shall be paid within 10 days of submission of the bill. Balance 40% of bill amount of the verified bill should be paid within 28 days of the submission of the bill.

43.3 Final Statement

Not later than 60 days after the issue of the '**Taking Over Certificate**' the Contractor shall submit to the Engineer for consideration a draft final statement with supporting documents showing in detail, in the form approved by the Engineer.

- i. The value of all work done in accordance with the contract.
- ii. Any further sums which the contractor considers to be due to him under the contract.

If the Engineer disagrees with or cannot verify any part of the draft final statement, Contractor shall submit such further information as the Engineer may reasonably require and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Engineer the final statement as agreed (for the purposes of these conditions referred to as the "Final Statement")

Upon submission of the Final Statement, the Contractor shall give to the Engineer, a written discharge confirming that the total of the Final Statement represents full and final settlement of all monies due to the Contractor arising out of or in respect of the Contract. Provided that such discharge shall become effective only after payment due under the Final Certificate issued, has been made and the performance security, if any has been returned to the Contractor.

Within 30 days after receipt of the Final Statement, and the written discharge, the Engineer shall issue to the Contractor a Final Certificate stating:

- a. the amount which, in the opinion of the Engineer, is finally due under the Contract, and
- b. after giving credit to the Employer for all amounts previously paid by the Employer and for all sums to which the Employer is entitled under the Contract, other than the balance, if any, due from the Employer to the Contractor or from the Contractor to the Employer as the case may be.

Time limit for payment of final bill

The contractor's final bill shall be passed for payment within three months after the issue of Taking over certificate by the Engineer provided the contractor has fully complied with the requirements under the contract. If the amount payable under any running bill is not sufficient to cover deductions to be made under the contract, the balance outstanding shall be paid by the contractor in cash within fifteen working days from the date of receipt of the written notice issued in this regard by the Engineer. After the payment of the amount of the final bill payable as aforesaid has been made, the contractor may, if he so desires, reconsider his position in respect of the disputed portion of the final bill and if he fails to do so within 90 days, his disputed claim shall be dealt with as provided in the contract. The employer will not pay any interest on account of any delay in the payment to the Contractor under any point of time and Contractor cannot prefer any claim on this account.

43.4 If an amount certified is increased in a later certificate as a result of an award by the Conciliator or an Arbitrator, the contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.

43.5 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.

44. Compensation Events

44.1 The following mutually agreed Compensation Events unless they are caused by the Contractor would be applicable:

- a. The Employer does not give access to a part of the Site by the Site Possession Date stated in the Contract Data.

- b. The Employer modifies the schedule of other contractors in a way, which affects the work of the contractor under the contract.
- c. The Engineer orders a delay or does not issue drawings, specifications or instructions required for execution of works on time.
- d. The Engineer instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.
- e. The Engineer unreasonably does not approve for a subcontract to be let.
- f. Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of letter of acceptance from the information issued to bidders (including the site investigation reports), from information available publicly and from a visual inspection of the site.
- g. The Engineer gives an instruction for dealing with an unforeseen condition, caused by the employer or additional work required for safety or other reasons.
- h. Other contractors, public authorities, utilities or the employer does not work within the dates and other constraints stated in the contract that cause delay or extra cost to the contractor.
- i. The effect on the contractor of any of the employer's risks.
- j. The Engineer unreasonably delays issuing a Certificate of Completion.
- k. Other Compensation Events listed in the Contract Data or mentioned in the Contract.

Whenever any compensation event occurs, the contractor will notify the employer, within 14 days and provide a forecast cost of the compensation event.

- 44.2** If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Engineer shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

44.3 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast has been provided by the Contractor, it is to be assessed by the Engineer and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Engineer shall adjust the Contract Price based on Engineer's own forecast. The Engineer will assume that the Contractor will react competently and promptly to the event.

45. Tax

45.1 The basic rate shall be quoted in the BOQ as mentioned. The GST will be reimbursed by KPL on production of remittance only after ITC is reflected in KPL's GST portal. The Employer will perform such duties in regard to the deduction of such taxes at source as per applicable law. Any new taxes, levies, duties imposed after signing the contract shall be reimbursed by the employer on production of documentary evidence.

46. Currencies

46.1 All payments shall be made in Indian Rupees. Unless specifically mentioned.

47. Price Adjustment - Not Applicable

48. Retention - Not Applicable

49. Liquidated Damages

49.A. In case of delay in completion of the contract, liquidated damages (L.D) may be levied at the rate of ½ % of the contract value per week of delay or part thereof, subject to a maximum of 10 percent of the contract price.

49.A(i) 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 owner 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 percent (1/2%) of the contract value of the works for each week or part of the week subject to the ceiling defined in sub clause 49.A.

49.A(ii)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.

49.A (iii)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

49.A (iv) In the event of such termination of the contract as described in clauses 49.A(ii) or 49.A(iii) or both the owner shall be entitled to recover L.D. upto ten percent (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.

49. A (v) In case part / portions of the work can be commissioned and port operates the portion for commercial purposes, the rate of LD will be restricted to the uncompleted value of work, the maximum LD being on the entire contract value.

Note: Contract price for LD shall be inclusive of tender price plus GST.

50. Incentives or Bonus – Not Applicable

51. Advance Payment – Not Applicable

52. Performance Security

52.1 Security deposit shall consist of Performance Guarantee to be submitted at award of work.

52.2 Performance Guarantee should be 10% of contract price and should be submitted as bank guarantee or demand draft within 15 days of receipt of Letter of Acceptance and Security Deposit to be refunded immediately not later than 14 days from completion of defect liability period. Performance Security will be refunded immediately not later than 45 days from completion of defect liability period.

53. Blank

54. Cost of Repairs

54.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. FINISHING THE CONTRACT

55. Completion

55.1 After completion of the work, the contractor will serve a written notice to the engineer / employer to this effect. The engineer / employer upon receipt of this notice shall conduct a complete joint survey of the work within 7 days and prepare a defects list jointly. The defects pointed out by the Engineer would be rectified by the contractor within 14 days and thereafter acceptance report be signed jointly by the contractor and the employer. The joint acceptance report shall be treated as completion certificate

56. Taking Over

56.1 The Employer shall take over the Site and the Works within seven days of the Engineer issuing a certificate of Completion.

57. Final Account

57.1 The Contractor shall supply to the Engineer a detailed account of the total amount that the Contractor considers payable under the Contract after issuance of taking over certificate.

58. Operating and Maintenance Manuals

- 58.1** If “as built” Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the Contract Data.
- 58.2** If the Contractor does not supply the Drawings and/or manuals by the dates stated in the Contract Data, or they do not receive the Engineer’s approval, the Engineer shall withhold the amount stated in the Contract Data from payments due to the Contractor.

59. Termination

- 59.1** The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.
- 59.2** Fundamental breaches of Contract include, but shall not be limited to the following:
- (a) the Contractor stops work for 28 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Engineer;
 - (b) the Engineer instructs the Contractor to delay the progress of the Works and the instruction is not withdrawn within 28 days;
 - (c) the Employer or the Contractor becomes bankrupt or goes into liquidation other than for a reconstruction restructure or amalgamation;
 - (d) a payment certified by the Engineer is not paid by the Employer to the Contractor within 50 days of the date of the Engineer's certificate;
 - (e) the Engineer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer;

- (f) the Contractor does not maintain a security which is required;
- (g) the Contractor has delayed the completion of works by the number of days for which the maximum amount of liquidated damages can be paid as defined in the Contract data and
- (h) if the Contractor, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in the executing the Contract.
- (i) If the contractor has contravened clause 7.1 and clause 9.00.

For the purpose of this paragraph: “corrupt practice” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. “Fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the employer, and includes collusive practice. Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the employer of the benefits of free and open competition.”

- 59.3** When either party to the Contract gives notice of a breach of contract to the Engineer for a cause other than those listed under Sub Clause 59.2 above, the Engineer shall decide whether the breach is fundamental or not.
- 59.4** Notwithstanding the above, the Employer may terminate the Contract for convenience subject to payment of compensation to the contractor including loss of profit on uncompleted works. Loss of profit shall be calculated on the same basis as adopted for calculation of extra / additional items.
- 59.5** If the Contract is terminated the Contractor shall stop work immediately, make the Site safe and secure and leave the Site as soon as reasonably possible.

60. Payment upon Termination

60.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the work done less advance payments received up to 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 the percentage to apply to the work not completed as indicated in the Contract Data. Additional Liquidated Damages shall not apply. 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.

60.2 If the Contract is terminated at the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Engineer 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.

61. Property

61.1 All materials on the Site, Plant, Equipment, Temporary Works and Works for which payment has been made to the contractor by the Employer, are deemed to be the property of the Employer, if the contract is terminated because of a contractor's default.

62. Release from Performance

62.1 If the Contract is frustrated by the outbreak of war or by other event entirely outside the control of either the Employer or the Contractor the Engineer shall certify that the Contract has been frustrated. The Contractor shall leave the Site and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which commitment was made.

F. SPECIAL CONDITIONS OF CONTRACT

1. LABOUR

The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.

The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Engineer may require.

2. COMPLIANCE WITH LABOUR REGULATIONS

During continuance of the contract, the Contractor and his sub contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour laws that are applicable to construction industry are given below. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Engineer/Employer shall have the right to deduct any money due to the Contractor including his amount of performance security. The Employer/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point of time.

SALIENT FEATURES OF SOME MAJOR LAWS APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND OTHER CONSTRUCTION WORK.

- a) **Workmen Compensation Act 1923:** The Act provides for compensation in case of injury by accident arising out of and during the course of employment.
- b) **Payment of Gratuity Act 1972:** Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years service or more or on death the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.
- c) **Employees P.F. and Miscellaneous Provision Act 1952:** The Act Provides for monthly contributions by the employer plus workers @ 12% / 8.33%. The benefits payable under the Act are:
- (i) Pension to family pension on retirement or death, as the case may be.
 - (ii) Deposit linked insurance on the death in harness of the worker.
 - (iii) Payment of P.F. accumulation on retirement/death etc.
- d) **Maternity Benefit Act 1951:** The Act provides for leave and some other benefits to workmen employees in case of confinement or miscarriage etc.
- e) **Contract Labour (Regulation & Abolition) Act 1970:** The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by Law. The Principal Employer is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ 20 or more contract labour.
- f) **Minimum Wages Act 1948:** The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of

the Act if the employment is a scheduled employment. Construction of Buildings, Roads, and Runways are scheduled employments.

- g) Payment of Wages Act 1936:** It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.
- h) Equal Remuneration Act 1979:** The Act provides for payment of equal wages for work of equal nature to Male and Female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.
- i) Payment of Bonus Act 1965:** The Act is applicable to all establishments employing 20 or more employees. The Act provides for payments of annual bonus subject to a minimum of 8.33% of wages and maximum of 20% of wages to employees drawing Rs.3500/-per month or less. The bonus to be paid to employees getting Rs.2500/- per month or above up to Rs.3500/- per month shall be worked out by taking wages as Rs.2500/-per month only. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of this Act.
- j) Industrial Disputes Act 1947:** The Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- k) Industrial Employment's (Standing Orders) Act 1946:** It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get the same certified by the designated Authority.

- l) Trade Unions Act 1926:** The Act lays down the procedure for registration of trade unions of workmen and employers. The Trade Union registered under the Act have been given certain immunities from civil and criminal liabilities.
- m) Child Labour (Prohibition & Regulation) Act 1986:** The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in Building and Construction Industry.
- n) Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979:** The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, travelling expenses from home upon the establishment and back, etc.
- o) The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996:** All the establishments who carry on any building or other construction work and employs 10 or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The Employer of the establishment is required to provide safety measures at the Building or construction work and other welfare measures, such as Canteens, First-Aid facilities, Ambulance, Housing accommodations for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.
- p) Factories Act 1948:** The Act lays down the procedure for approval at plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing 10 persons or more with aid of power or 20 more persons without the aid of power engaged in manufacturing process.

SECTION – 4
Contract Data

Contract Data

Items marked "Not Applicable" do not apply in this Contract.

**Clause Reference
with respect to
section 3**

The following documents are also part of the contract.

1. The Schedule of Other Contractors. Not Applicable [Cl. 8]

2. The Schedule of Key Personnel. As per Sl.no.6 in Pre-qualification of bidders in section 2

The above insertions should correspond to the information provided in the invitation of bids.

3. The Employer is Name: **KAMARAJAR PORT LIMITED.**

Name of authorized Representative – **THE DEPUTY GENERAL
MANAGER (CIVIL),
Address: Vallur (Post), Chennai – 600 120.**

4. The Engineer is: (Will be intimated later)

Name of Authorized Representative: (Will be intimated later)

5. The Conciliator appointed jointly by the employer and contractor is:
(if necessary)

Name & Address of the Conciliator: (Will be intimated later)

6. The name and identification number of the Contract is (Cl.1.1)
KPL/OP/ELE/10/2019

7. The work consist of **“Providing Illumination to the Coal Berth 3 & 4 at Kamarajar Port”.**

8. The Start Date shall be 14 days of the receipt of Letter of Acceptance (Cl.1.1)

9. The Intended Completion Date for the whole of the Work is
“06 months” reckoned from ‘Start Date’ with the following milestones.

<u>Physical works to be completed</u>	<u>Period from the date of issue of</u>
	<u>notice to proceed with the work</u>

10. The following documents also form part of the Contract: The [Cl. 2.3]
documents furnished by the successful bidder along with his bid.

-
11. The Contractor shall submit a program for the works for approval of Engineer shall be 14 days from the receipt of Letter of Acceptance. [Cl. 27.1]
12. The Site Possession Dates shall be: The whole site shall be handed over to the contractor on the Start Date. [Cl. 21]
The contractor shall be responsible to coordinate with service provider / concerned authorities for cutting of trees, shifting of utilities and removal of encroachments etc. and making the site unencumbered from the project construction area required for completion of work. This will include initial and frequent follow-up meetings / actions / discussions with each involved service provider / concerned authorities. The contractor will not be entitled for any additional compensation for delay in cutting of trees, shifting of utilities and removal of encroachments by the service provider / concerned authorities. Payment for cutting of trees and shifting of utilities as required by the concerned department shall be made by the Employer. The Employer will also write to all concerned departments / service provider organization for expediting and facilitating cutting of trees, shifting of utilities and removal of encroachment etc.
13. The Site is located at Kamarajar Port Premises in the State of Tamilnadu.
14. The Defects Liability Period is one year from the date of completion. [Cl.1.1.1]
15. The insurance cover as per clause 13 shall be furnished by the contractor before start date for the contract value. [Cl.13]
16. The following events shall also be Compensation Events [Cl. 44]
17. The Employer terminates the contract for his convenience [Cl. 59]
18. The period between Program updates shall be 90 days. [Cl. 27.3]
19. The amount to be withheld for late submission of an updated Program shall be 2.5% of the contract value. [Cl. 27.3]
20. The language of the Contract documents is English [Cl. 3.1]
21. The law which applies to the Contract is the law of Union of India [Cl. 3.1]
22. The currency of the Contract is Indian Rupees. [Cl. 46]
23. Fees and types of reimbursable expenses to be paid to the Dispute Review Expert [Cl. 25]
24. Appointing Authority for the Conciliator CIDC-SIAC Arbitration center [Cl. 26]
25. The formula (e) for adjustment of prices are - Not Applicable. [Cl. 47]

SECTION – 5
SITE CONDITIONS AND
SPECIFICATIONS

SECTION - V

TECHNICAL SPECIFICATIONS

1. PREAMBLE

1.1. General

The Technical specifications covering the materials and the workmanship aspects as well as method of measurements and payments are included in this section. These specifications cover the items of electrical and non-electrical works coming under scope of this document. All work shall be carried out in conformity with the same. These specifications are not intended to cover the minute details. The works shall be executed in accordance with good practices followed for achieving high standards of workmanship, thus ensuring safety and durability of the construction. All codes and standards referred to in these specifications shall be the latest thereof, unless otherwise stated.

1.2. Inclusive Documents

The provisions of special conditions of contract, those specified elsewhere in the tender document, as well as execution drawings and notes, or other specifications issued in writing by the Engineer shall form part of the technical specifications of this project.

1.3. The attention of the contractor is drawn to those clauses of codes, which require supporting specification either by the Engineer or by 'Mutual agreement between the supplier and purchaser'. In such cases, it is the responsibility of the tenderer/contractor to seek clarification on any uncertainty and obtain prior approval of the Engineer before taking up the supply/construction. In absence of such prior clarification, the Engineer's choice/design will be final and binding on the contractor without involving separately any additional payment.

1.4. Measurement And Payment

The methods of measurement and payment shall be as described under various items and in the Bill of Quantities. Where specific definitions are not given, the methods described in B.I.S. Code will be followed. Should there be any detail of construction or materials which has not been referred to in the Specification or in the Bill of

Quantities and Drawings but the necessity for which may be implied or inferred there from, or which is usual or essential to the completion of the work in the trades, the same shall be deemed to be included in the rates and prices entered by the contractor in the Bill of Quantities.

1.5 Defective Works

All defective works are liable to be demolished, rebuilt and defective materials replaced by the contractor at his own cost. In the event of such works being accepted by carrying out repairs etc., as specified by the Engineer, the cost of repairs will be borne by the contractor.

In the event of the work being accepted by a given 'Design Concession' arising out of but not limited by a given under sizing, under strength, shift in location and alignment etc., and accepting design stress in members which are higher than those provided for in the original design or by accepting materials not fully meeting the specifications etc., the tenderer will be paid for the works actually carried out by him at suitably reduced rate of the tender rates for the portion of the work thus accepted.

2 SITE INFORMATION

- 2.1 The information given hereunder and provided elsewhere in these documents is given in good faith by the 'Employer but the Contractor shall satisfy himself regarding all aspects of site conditions and no claim will be entertained on the plea that the information supplied by the Employer is erroneous or insufficient.
- 2.2 The area in which the works are located is mostly plain to rolling terrain. The approximate longitude and latitude of region being 80°-20' east and 13°-15' north respectively.

2.3 General Climatic Conditions

- 2.3.1 The variation in temperature in this region is as under
 1. During summer months, maximum Temperature is about 37° C and minimum about 30° C.
 2. During winter months, minimum temperature is about 22° C and maximum about 27° C.
- 2.3.2 The normal annual rainfall in the area is in the order of about 1200 mm a good portion of which is concentrated during the months of October to December each year.

2.4 Seismic Zone

The works are located in seismic zone III as defined in IRC-6-1966

2.5 CONDITION OF SERVICE

The towers are to be located very close to the sea and shall withstand the rigorous atmospheric conditions inside port premises during cyclonic periods. The climate is generally dry, damp, and tropical.

During summer, the mean daily temperature is maximum 45° C and the mean relative humidity is 80%. During the two monsoon periods the humidity may raise to even 100% with corresponding temperature ranging from 21°C to 29°C.

The wind velocity of 25 to 60 KmPH is common on any day.

During cyclone wind up to 200 KmPH may reach occasionally

3. TECHNICAL SPECIFICATIONS

3.1 SCOPE:

This Specification covers general principles to be followed for the selection of electrical equipment and accessories and their installation, testing and commissioning. The term selection of electrical equipment means, the electrical equipment and accessories as well as materials. This also covers installation procedure of electrical equipment as well as materials.

The selection of electrical equipment and their installation work as well as during testing and commissioning, safety of equipment and operating personnel, ease of operation and maintenance shall be given the prime considerations.

The electrical installation shall be complete in all respects and any item not included in the specifications but essential for proper installation and functioning of the electrical system shall be deemed to be included in the scope of the specification whether specifically mentioned in the Technical and General specifications or not.

All electrical equipment, installation materials and accessories shall be selected from the standardized types and ratings and shall be oriented towards maximizing the inter change ability and minimizing the maintenance.

In the interest of standardization the Employer reserves the right of selecting particular types and makes of installation materials and accessories and the Contractor shall provide materials and accessories of the particular makes if so required.

3.2 STANDARDS:

The equipment and accessories covered by this specification shall be designed, manufactured and tested in accordance with Indian Standards and codes of practice published by the Indian Standards Institution wherever available, in order that specific aspects under Indian Conditions are taken care of.

In case where Indian Standards are not available, then equipment and accessories shall conform to the latest publications and codes of practice by any other recognized National Standards Institutions.

All electrical equipment and installation shall also conform to the latest Indian Electricity Rules as regard Safety, earthing and other essential provisions specified therein for installation and operation of electrical plants.

All the civil works shall be carried out as per relevant specifications and to the satisfaction of the Engineer. The specification of the material shall be as per relevant Indian Standard specification as applicable.

3.3 RELIABILITY AND SAFETY:

Continuity of Power supply is the first consideration and the installation shall be such as to provide facilities to simplify inspection, testing, maintenance, cleaning and general repairs at Site.

Special care shall be taken to make the enclosed equipment proof against entry of creeping reptile which may create electrical short circuits inside the live equipment.

All ventilating and forced-draft opening shall have suitable screen protection. When screens are provided on top of the equipment, means shall be provided to protect them from falling objects.

3.4 SYSTEM VOLTAGE:

Electric power will be available at 415 V, 3 phases, 3 wires, 50 Hz. The system will be earthen solidly at transformer neutral.

All Alternating Current Equipments shall be designed to suit supply with a voltage variation not exceeding +15% and frequency variation not exceeding +3%.

3.5 VOLTAGE DROP IN CABLES:

The total allowable voltage drop in the power circuits from the load centers to any motor or other consumers shall not exceed 5%. The distribution of this voltage drop in different parts of the System shall depend on the layout of the installation. General the voltage drops in main feeders from the load centres to the PANELS or DBs shall not exceed 2% and in the sub-feeders from the PANELS or DB to individual equipments or other consumers shall not exceed 3%.

3.6 DESIGN REQUIREMENTS:

3.6.1 FOUNDATION WORKS FOR HIGH MAST TOWER:

The soil bearing capacity is 10 tonnes per sq.mm approximately and Suitable foundations shall be designed. The Tenderer shall submit detailed drawing of foundation for the approval of the KPL Civil department before commencement of foundation.

Any corrections /modifications required shall be taken into account and carried out accordingly and KPL decision to be final and binding.

The excavation of the earth for the foundation shall be the Tenderer's responsibility. After completion of foundation work, the removed soil to be made as to the original position. If there will be any damage, the tenderer shall carryout the rectification at their cost.

The excavated materials and unwanted materials shall be cleared then and there and dumped away from the site locations as required by KPL's representative without any hindrance to the operation or movement of the port's plants and equipments.

Accordingly R.C.C. concrete foundation shall be provided in the Tenderer's responsibility includes supply of all the materials like blue metal, river sand, steel, cement, chipping, cutting, plastering, etc, and back filling up to the normal ground level of the adjoining area.

The provision of foundation shall be executed well in advance and sufficient curing shall be given after completion of concrete works.

The Tenderer's responsibility includes breaking of old concrete portions and Dewatering if necessitated while excavating.

The top level of the concrete base shall be higher than the nearby ground level of not less than 100mm.

In the existing RCC concrete (Berth), the RCC concrete shall be broken into required depth without affecting the nearby concrete and the foundation shall be provided in the column not in slab. If any damage occurs to the near by structure, it is the responsibility of the contractor to rectify the damages on their cost.

3.6.2: 20Mtr. High Mast GI Tower

The scope of this specification covers the manufactures, transport, installation, testing and commissioning of the complete highmast tower lighting system using Raising and Lowering type of 20mtr High mast Towers including the civil Foundation works. However, all items required for the safe and efficient operation and maintenance of the lighting system. However, all items required for the safe and efficient operation and maintenance of the lighting system, including the high mast. The highmast shall be designed suitable to fit the flood light luminaries in 180°/360° degree according to the site requirement.

High mast shall be 20 sided polygonal suitable for mounting of 6/10nos. of 300Watts LED flood lights. No site welding or bolted joint shall be done on the mast. The minimum overlap distance shall not be less than 1.5 times the diameter at penetration. The dimensions of the mast shall be decided based on proper design and design calculations shall be submitted for verification.

The design life of the mast shall be a minimum of 25 years. Wind speed oscillation shall be damped by method of construction and adequate allowance made for the related stresses.

The contractor shall be responsible for the design of the foundation and safe erection and installation of the High mast in mechanically and structurally safe working condition for the design of the high mast. The holding down bolts shall be of high tensile strength and shall be supplied complete with anchor plate of 4mm thick for casting into the foundation. The precision made steel template with tube holes shall be provided to ensure correct vertically and horizontally of bolt alignment.

The fabricated Lantern carriage of required diameter shall be provided for fixing and holding light fittings and control gear boxes provided on each mast. The Lantern carriage

shall be of special design and shall be of durable steel tube construction, the tubes acting as conduits for wires, with holes fully protected by grommets.

The Lantern carriage shall be fabricated in two halves and joined by bolted flanges with stainless steel bolts and nyloc type stainless steel nuts to enable easy installation or removal from the erected mast. The inner lining of the carriage shall be provided with protective buffer arrangement, so that no damage is caused to the surface of the mast during the raising and lowering operation of the carriage. The entire Lantern carriage shall be hot dip galvanised after fabrication.

For the installation and maintenance of the luminaries and lamps, it will be necessary to lower and raise the lantern carriage assembly. To enable this, a suitable winch arrangement shall be provided, with the winch fixed at the base of the mast and the specially designed head frame assembly at the top.

The winch shall be of completely self sustaining type, without the need for brake shoe, springs or clutches. Each driving spindle of the winch shall be positively locked when not in use, gravity activated PAWLS. Individual drum also should be operated for fine adjustment of lantern carriage. The capacity, operating speed, safe working load, recommended lubrication and serial number of the winch shall be clearly marked on each winch. The winch shall be type tested in presence of a reputed institution and the test certificates shall be furnished before supply of materials.

The head frame which is to be designed as capping unit of the mast shall be of welded steel construction, galvanised both internally and externally after assembly. The top pulley shall be of appropriate diameter, large enough to accommodate the stainless steel wire ropes and the multicore electric cable. The pulley block shall be made of non – corrodible material, and shall be of die cast Aluminium Alloy (LM-6).

The suspension system shall essentially be without any intermediate joint and shall consist of only non – corrodible stainless steel of AISI 316 .

The stainless steel wire ropes shall be of 7/19 construction, the central core being of the same material. The overall diameter of the rope shall as per manufacturer specification but shall not be less than 6mm. The breaking load of each rope shall not be less than 1450KG. Giving factor of safety of over 5 for the system at full load as per the TR-7 referred in the beginning of this specification. The end construction of ropes to the winch drum shall be talurit.

The thimbles shall be secured on rope by compression splices. Two/Three continuous lengths of stainless steel wire ropes shall be used in the system and no intermediate joints are acceptable in view of the required safety. No intermediate joints/terminations, either bolted or else, shall be provided on the wire ropes between winch and lantern carriage.

A suitable terminal box shall be provided as part of the contract at the base compartment of the high mast for terminating the incoming cable. The electrical connections from the bottom to the top shall be made by special trailing cable. The electrical connections from the bottom to the top shall be made by special trailing cable. The cable shall be EPR insulated and PCP sheathed to get flexibility and endurance. Size of the cable shall be minimum 5 core 4 sqmm copper. The cable shall be of reputed make. At the top there shall be weather proof junction box to terminate the trailing cable. Connections from the top junction box to the individual luminaries shall be made using 3 core 2.5 sq.mm flexible PVC cables of reputed make.

Also, suitable provision shall be made at the base compartment of the mast to facilitate the operation of internally mounted, electrically operated power tool for raising and lowering of the lantern carriage assembly. The trailing cables of the lantern carriage rings shall be terminated by means of specially designed, metal clad, multi pin plug and socket provided in the base compartment to enable easy disconnection when required.

A suitable, high powered, electrically driven, internally mounted power tool, with manual over ride shall be supplied for the raising and lowering of the lantern carriage for maintenance purposes. The speed of the power tool shall be to suit the system. The power tool shall be single speed, provided with a three phase 415V, 50HZ, motor of the required rating. The capacity and speed of the electric motor used in the power tool shall be suitable for the lifting of the design load installed on the lantern carriage.

The power tool mounting shall be so designed that it will be not only self supporting but also aligns the power tool perfectly with respect to the winch spindle during the operations. Also, a external power operating tool motor for the external operation of the winches in case of problems with the electrically internal operated tool, shall be provided and shall incorporate a torque limiting device.

There shall be a separate torque – limiting device to protect the wire ropes from over stretching. It shall be mechanical with suitable load adjusting device. The torque limiter shall trip the load when it exceeds the adjusted limits. There shall be suitable provision for

warning the warning the operator once the load is tripped off. The torque limiter is a requirement as per the relevant standards in view of the overall safety of the system. Each mast shall have its own power tool motor.

One number heavy duty hot dip galvanized lighting finial shall be provided for each mast. The lighting finial shall be minimum 1.2M in length and shall be provided at the centre of the head frame. It shall be bolted solidly to the head frame to get a direct conducting path to the earth through the mast. The lighting finial shall not be provided on the lantern carriage under any circumstances in view of safety of the system.

Reflecting sticker (Yellow & Black lining type)) minimum one meter length shall be provided on bottom of each mast.

Aviation Obstruction LED lights of reliable design and reputed manufacturer shall be provided on top of each mast.

Suitable earth terminal using 12mm diameter stainless steel bolts shall be provided at a convenient height on the base of the mast, for lighting and electrical earthing of the mast.

Light fitting shall be specially designed for 300W LED. The light fitting shall be tested as per Indian standards and test reports shall be submitted along with the materials.

In General 1no. of externally operated Power tool of 2 HP intergral suitable for all Highmast towers shall be provided.

The following test certificates from the manufactures shall be furnished

1. Dynamic loading test certificate
2. Coating test certificate
3. Winch load taking certificate
4. Electric Motor test certificate
5. Structural stability of Mast
6. Welding test certificate

APPLICABLE STANDARDS:

The following shall be the Reference Standards for the High mast

Code No.	Title
a) I.S. 875 (Part III) 1987.	Code and practice for design loads for structures.
b) BSEN 10025/DIN 17100	Grades of MS. Plates.
c) BS 5135/AWS	Welding
d) BS.ISO 1461	Galvanizing
e) TR.No. 7 1996 of ILE, UK.	Specification for Mast and foundation.

Data Sheet for High Mast	
Height of High Mast	: 20 Mtrs.
Material of construction	: BSEN 10025
Thickness of material	
Top	: 3mm
Bottom	: 4mm
Cross section of mast (No of sides)	: 20 sided polygon
Length of individual section	
Top	: 9.80 Mtr.
Bottom	: 10.90 Mtr.
Base and top dia.	
Base	: 410mm (approx)
Top	: 150mm (approx)
Type of joints	: Stress slip fit joints
Metal protection treatment	: Hot dip galvanized as per BS 729 / or equivalent
Thickness of galvanization	: Minimum 85 microns for Top & Bottom as per applicable code.
Size of door opening at base of mast	: 1000 x 300 mm

Type of locking on door panel	: Close fitting door with Allen key locking with Suitable reinforcement to avoid buckling at base of mast
Lightning protection finial	: GI single spike, 1200mm length
Size of base plate	
	Diameter. : 570mm
	Thickness : 25mm
Weight of Complete High Mast (Including Headframe & Lantern Carriage But Without Luminaires. : 1055Kgs (approx)	
Dynamic loading prevailing at site	
Max Wind speed	: 55m/s as per IS-875 Part-3
Maximum Gust speed Time	: 3 seconds
Height above Ground Level where wind speed is calculated	: 10Mtrs above Ground Level
Factor of Safety for Wind Load	: 1.25
Factor of Safety for other Loads	: 1.15
No of foundation bolts	: 08Nos.
PCD of foundation bolts	: 490mm
Dia of foundation bolts	: M30
Length of foundation bolts	: 8Nos . 1000 mm Long Bolts
Lantern Carriage	
Material of construction	: 40 NB ERW class-B, MS pipe
Dia of lantern carriage	: As per latest IS
Construction	: 75 x40 mm channel
No of joints	: 2 segments
Load carrying capacity	: 750 Kgs
Total Weight of Assembly with Fittings	: 500 Kgs (Approx)

Winch	
No of drums per winch	: Double drum
Gear ratio	: As per manufacturer guide line and as per IS
Capacity	: SWL 750 Kg
Method of operation	: Motor and Manual
Lubrication arrangements	: Self lubricating permanent oil bath
Type of lubricant	: SAE-90/140
Tested Load per Drum	: 750 Kgs
Stainless steel wire rope	
Grade	: AISI 316
Dia	: Minimum 6mm
Construction	: 7/19
No of ropes	: 2 or 3 nos 6mm for lantern carriage
Centre core Material	: Stainless Steel
Number of SS Ropes	: 3 Nos from transition plate to Lantern carriage
	2 Nos from Winch to transition plate
Thimbles and terminals	: Provided
Breaking load capacity	: 2350 Kg Per SS wire rope
Trailing cable	
Type	: 1No Flexible copper 5 core 4 Sqmm
Material	: EPR insulated PCP sheathed/PVC
No of circuits per mast	: One
Power tool	
Model	: Integral
Capacity	: 1.5KW/2HP

Speed	: Single
Rotation	: Reversible
Input supply	: 3 phase 415V AC 50 HZ
<u>Torque Limiter</u>	
Type	: Mechanical
Lifting Capacity	: 750 Kgs
Adjustable / non – Adjustable	: Adjustable
Aviation Obstruction Lamp	: 1set LED aviation fitting per mast

Feeder Pillar for High Mast Tower

Pedestal mounted cubicle type weather proof, dust and vermin proof panel fabricated out of 14 SWG CRCA. The panel shall conform to IP-55. After fabrication, the same shall be undergo 7-tank process and powder coated to the required shade. The panel should withstand saline atmosphere prevailing at the site being close to sea. The pedestal shall be fabricated out of 40x40x6mm MS channels painted black. The pedestal shall be grouted on the ground with cement concrete. The bottom of the panel shall have detachable gland plate fabricated out of 14 SWG CRCA. The panel shall be equipped with following.

- 1 no 32A TPN MCB, 10 KA as incomer
- 1 no 25A TP air break contactor for main circuit
- 1 no 9A air break contactor for winch motor circuit
 - 1 no electronic cyclic timer 0-24 hrs
 - 1 no 6A SP MCB, 10 KA for control circuit
 - 1 no 2A glass fuse
 - 2 no lower and raise push button rated 10A
 - 1 no 10A toggle switch
 - 1 no 10A neutral link
 - 1 set of required terminal stations

1 set of copper conductor PVC insulated wiring for power and control circuits (6 Sq. mm for lamps, 2.5 Sq.mm for winch motor and 1.5 Sq.mm for control). All wires shall be coloured Black and controlled with real time clock and 40A contactor for Automatic switching on / off of the Lights.

INSPECTION & TESTING

Inspection

High mast tower shall be subjected to inspection by third party agency (**i.e Government / Public Sector Undertaking agencies only**) authorized by the KPL and witnessed by KPL at the manufacturer's works. The cost of third party inspection agency and the expenses for the witness by the KPL representative shall be borne by the contractor

The inspection call notice shall be given at least 1 (one) weeks before the date of inspection.

Four sets of the inspection report shall be submitted to the owner for obtaining dispatch clearance.

Testing

Routine tests shall be carried out by the manufacturer on all High mast towers at manufacturer's work.

Acceptance tests shall be carried out by the manufacturer in presence of Owner's representative and representative of agency authorized by Owner.

Manufacturer shall provide certified test reports (Routine & Type) for review during inspection.

DRAWINGS, DATA & MANUALS

General

The Owner's approval of the QAP and drawings shall not relieve the Vendor of his responsibility for supplying conforming with the relevant specifications and standards or of any mistakes, errors or omissions in the drawing.

Documents to be submitted on PO placement

The following documents of the offered cables shall be submitted after placement of purchase order, for owner's approval:

Quality Assurance Plan (QAP)

Technical data sheet

Any other document / drawing requested by the owner

Documents to be submitted for Dispatch clearance

One set of documents (corresponding to documents mentioned above) shall be submitted along with the inspection report for issuance of the dispatch clearance.

Any other relevant drawing, document or data necessary for satisfactory installation, termination, energisation & maintenance.

Documents to be submitted with Delivery

The Vendor shall submit two sets of documents (to each consignee) at the time of effecting delivery.

3.6.3 Technical Specifications of Equipments**3.6.3.1 General Specification for Panels:-****Construction Details:****Feeder Pillars**

Outdoor free standing feeder pillar fabricated out of 14 SWG(2mm) CRCA for main body, hinged door and bottom cable gland plate to be fixed on RCC pedestal 300mm from finished ground level. The door will have locking arrangement and fully gasketed. A canopy shall be provided on the top of the feeder pillar to make it rain protected.

Earthing bolts shall be provided at both ends of the feeder pillar and internally connected by 25x3mm copper bus bars Brazing to earth the feeder pillars externally.

The feeder pillar shall be powder coated with epoxy based resin after undergoing 7-tank process. The feeder pillar shall be numbered for proper identification. The colour shade shall be advised by KPL. The feeder pillar shall be equipped with following.

- (a) The switchgear shall be metal enclosed, modular type suitable for indoor floor mounting and shall have following features.
- (b) Shall be fabricated by using cold rolled sheet steel.
- (c) All cubicles / panels shall comprise of rigid welded structural frames made of pressed and formed cold rolled sheet steel of thickness not less than 2 mm. (14SWG) Cladding of the frames and doors shall be made out of 2mm(14SWG) thick sheet steel respectively. All cable gland plates shall be made out of 3 MM (10SWG) thick sheet steel plates.
- (d) All cubicles shall be provided with ISMC-75x40x6 channel base frame.
- (e) Height shall not exceed 2375 mm. Normal operating height shall not exceed 1850 mm.
- (f) Shall be single/double front execution as specified in specific requirements and shall be of dead front type. Whenever specified in specific requirements, single front execution panel shall not need rear access for operation or maintenance purpose.
- (g) Shall have designation labels both on front and rear sides
- (h) Shall be provided with neoprene gaskets for removable covers, doors, between panels and base frame and all around the perimeter of adjacent panels. Switchgear panel shall be extensible on both sides. Switchgear panel shall be suitable for top/bottom, cable/bus bar entry as specified. There shall be adequate space for ease of termination of aluminium conductor multi core cables, selected with 60% derating factor.
- (i) Switchgear shall be divided into distinct vertical sections each comprising:
- (j) A completely enclosed bus bar compartment running horizontally
- (k) Enclosed vertical bus bars serving all modules in vertical section
- (l) A separate horizontal enclosure for all auxiliary power and control buses, if required. Vertical cable alley of minimum 300 mm wide covering entire height with undrilled detachable gland plate. Minimum feeder section width shall be 450mm & height 250mm
- (m) Operating devices shall be incorporated only in the front of switchgear.

- (n) Each shipping section shall have metal sheets at both ends.
- (o) Cable alley shall be provided with suitable hinged doors.
- (p) Rear of single front switchgear shall be provided with removable panels with captive screws. The panel covers shall be provided with suitable arrangement for removing the cover.
- (q) All doors shall be with concealed type hinges and captive screws. Doors shall be provided with right angle turn type door lock.

(s) **Interchange ability:**

All identical equipment and corresponding parts be fully interchangeable without any modifications.

(t) **Main and Auxiliary Buses:**

Switchgear bus bars shall be of uniform cross section throughout the length and made of high conductivity, electrolytic aluminium conductor. Bus bars shall be provided with at least the minimum clearances in air as specified.

All bus bars, bus taps shall be insulated with close fitting sleeve of hard, smooth, dust and dirt free heat shrunk PVC insulation of high dielectric strength to provide a permanent high dielectric non-aging and non-tracking protection, impervious to water, tropical conditions and fungi. The insulation shall be non-inflammable and self-extinguishing and in fast colours to indicate phases. The joints shall be insulated in such a way as to provide for accessibility of contact bolts for maintenance. The dielectric strength and properties shall hold good for the temperature range of 0 to 90 degree centigrade. If the insulating sleeve is not coloured, bus bars shall be colour coded with coloured bands at suitable intervals. Both main horizontal bus bars and vertical bus bars serving modules shall be insulated.

Bus bar joints shall be of the bolted type and shall be insulated. Spring washers shall be provided to ensure good contact at the joints. Bus bars shall be thoroughly cleaned at the joint locations and suitable contact grease shall be applied just before making a joint.

Bus bars shall be located in air-insulated enclosures. Direct access to, or accidental contact with busbars and primary connections shall not be possible. All apertures and slots shall be protected by baffles to prevent accidental shorting of bus bars by the entry of maintenance tools. To provide a tight seal between cubicles, bushings or insulating panels shall be provided for bus bars crossing from one cubicle to another.

Each switchgear cubicle shall be fitted with a label on the front and rear of the cubicle. Each switchgear shall also be fitted with a label indicating the switchgear rating and duty.

Each relay, instrument, switch, fuse and contactor shall be provided with a separate label.

Switchgear shall be complete with inter-panel wiring.

One metal sheet shall be provided between two adjacent vertical sections running to the full height of the switchgear except for the horizontal bus bar compartment. However, each shipping sections shall have metal sheets at both ends.

After isolation of the power and control connections of a circuit, it shall be possible to safely carry out maintenance in a compartment with the bus bars and adjacent circuits alive.

Clamping arrangement shall be provided for incoming & outgoing cables.

Pre-treatment and Painting:

- (a) All metal work of the fabricated panel shall undergo a seven-tank process of degreasing, pickling in acid, cold rinsing, phosphating, passivating etc. in seven-tank treatment plant before painting.
- (b) The treated panel shall be painted in 2 coats of high corrosion resistant primer. The primer shall be baked in oven. The finishing treatment shall be by synthetic enamel or epoxy paint with powder coated finish, as specified.

Feeder Pillar -1

- *) 250Amps. TPN aluminium bus bars rated for 25KA for 1 sec. bus bars supported on SMC supports and colour coded with PVC sleeves.

- *) 1 no. of 250 Amps 4Pole MCCB, 25KA as incomer with built in thermal over load and magnetic short circuit releases and front operating handle with door interlock mechanism.
- *) 03 nos. of resin cast primary copper wound CT's of ratio 250/5A, class 1, 10VA.
- *) 1 no. of microprocessor based Multi Function Meter(MFM) to read voltage, current, KW, KWH, frequency, KVA, KVAH and PF.
- *) 03 nos. LED type RYB indication lamps.
- *) Control fuses for protecting indication lamps and MFM.
- *) 02 nos. of 125A, 4pole MCCB, 25KA with thermal and magnetic releases as outgoing feeders.
- *) 02 nos. of 63A, 4pole MCCB, 25KA with thermal and magnetic releases as outgoing feeders.
- *) 02 nos. of 32A, 4pole MCCB, 25KA with thermal and magnetic releases as outgoing feeders.

Feeder Pillar -2

- *) 125 Amps. TPN aluminium bus bars rated for 25KA for 1 sec. bus bars supported on SMC supports and colour coded with PVC sleeves.
- *) 1 no. of 125Amps 4Pole MCCB, 25KA as incomer with built in thermal over load and magnetic short circuit releases and front operating handle with door interlock mechanism.
- *) 03 nos. of resin cast primary copper wound CT's of ratio 125/5A, class 1, 10VA.
- *) 1 no. of microprocessor based Multi Function Meter(MFM) to read voltage, current, KW, KWH, frequency, KVA, KVAH and PF.
- *) 03 nos. LED type RYB indication lamps.
- *) Control fuses for protecting indication lamps and MFM.
- *) 02nos of 63Amps, 4 pole MCCB & 02nos of 32Amps 4pole 25 KA MCCB, 4nos of 32Amps, 4pole MCB with thermal and magnetic releases as outgoing feeders.

Feeder Pillar – 3

- i) 100 Amps TPN aluminium bus bars rated for 25KA for 1 sec. For 4 way TPN distribution supported on SMC supports and colour coded with PVC sleeves
- ii) 1 no 63Amps, 4 pole MCCB, 25KA as incomer with built in thermal over load and magnetic short circuit releases and front operating handle with door interlock mechanism.
- iii) 03nos.of LED type RYB indication Lamps
- iv) Control fuses for protecting indication lamps
- v) 04nos.of 32Amps 4 pole MCB with thermal and magnetic releases as outgoing feeders.
- vi) Real time clock with 40A contactor for auto switch ON/OFF

INSPECTION & TESTING

Inspection

Feeder pillar / panels shall be subjected to inspection by third party agency (**i.e Government / Public Sector Undertaking agencies only**) authorized by the KPL and witnessed by KPL at the manufacturer's works. The cost of third party inspection agency and the expenses for the witness by the KPL representative shall be borne by the contractor

The inspection call notice shall be given at least 1 (one) weeks before the date of inspection.

Four sets of the inspection report shall be submitted to the owner for obtaining dispatch clearance.

Testing

Routine tests shall be carried out by the manufacturer on all Feeder pillar/ panels at manufacturer's work.

Acceptance tests shall be carried out on each Feeder pillar / panels by the manufacturer in presence of Owner's representative and representative of agency authorized by Owner.

Manufacturer shall provide certified test reports (Routine & Type) for review during inspection.

DRAWINGS, DATA & MANUALS

General

The Owner's approval of the QAP and drawings shall not relieve the Vendor of his responsibility for supplying conforming with the relevant specifications and standards or of any mistakes, errors or omissions in the drawing.

Documents to be submitted on PO placement

The following documents of the offered cables shall be submitted after placement of purchase order, for owner's approval:

Quality Assurance Plan (QAP)

Technical data sheet

Any other document / drawing requested by the owner

Documents to be submitted for Dispatch clearance

One set of documents (corresponding to documents mentioned above) shall be submitted along with the inspection report for issuance of the dispatch clearance.

Any other relevant drawing, document or data necessary for satisfactory installation, termination, energisation & maintenance.

Documents to be submitted with Delivery

The Vendor shall submit two sets of documents (to each consignee) at the time of effecting delivery.

3.6.3.2 Specifications for 1.1 KV grade LTUG cables

SCOPE

These specifications cover the requirements for design, manufacture, inspection, testing and supply of the cables (up to 1.1 KV A C).

The scope of supply includes cables as per the design requirement & bill of materials. The cables shall be suitable for direct laying in ground.

All as built documents, instruction/Operation & maintenance manuals, catalogues, data sheet, test certificates etc., in required sets mentioned elsewhere in these specifications are to be provided.

CODES AND STANDARDS

The cables and its associated materials/parts shall be designed, manufactured & tested conforming to latest editions of the applicable Indian Standards, including the standards except where it has been modified and/or supplemented by these specifications.

The cables shall meet the requirement of Indian Electricity Rules as amended up to date and any other relevant local laws, codes and regulations, applicable in India.

VENDOR REQUIREMENTS

The Vendor should be the original manufacturer of the cables, having all required testing facilities in India.

GENERAL REQUIREMENTS

The cables shall be suitable for continuous operation under the specified site & service conditions.

The cables shall be laid underground in cable trenches/ aboveground on cable trays.

The cables shall be suitable for operating in tropical climate and under the ambient conditions as specified. The design and construction of the cables shall meet the requirements of severe fault level.

The cables shall be new and specifically produced against the order.

Temperature Rise

Cables shall be suitable for use with conductor temperature rise up to 90 degree Celsius under normal operation and 250 degree Celsius under short circuit condition.

Low Voltage Cables

These specifications are applicable only for low voltage cables (For working voltages up to and including 1.1 kV) and shall conform to IS:7098, Part- I.

All the cables shall be Improved fire performance cables suitable for Category C2 (Appendix A of IS 7098 Part-1 Reaffirmed 2005).

The improved fire performance cables shall be designed to have minimum Oxygen index of 29 at 27 ± 2 degree Celsius.

The improved fire performance cables shall be designed to have minimum temperature index of 21 at a temperature of 250 degree Celsius & maximum smoke density of 60% as per ASTM D-2863.

Cable conductor shall be clean, reasonably uniform in size and shape, smooth and free from harmful defects. cables shall have aluminium conductor of grade H4

Protective barrier between the insulation and conductor, if used, shall be compatible with the insulating material and suitable for the operating temperature of the cable. The conductor (with protective barrier, wherever applied) shall be provided with cross linked polyethylene (XLPE) insulation applied by extrusion.

PVC inner sheath & fillers compound shall be compatible with temperature rating of cable and shall conform to the requirement of type ST-2 as per IS: 5831. The inner sheath shall be applied by extrusion and should fit closely on the laid up cores. It shall be possible to remove inner sheath without damage to the insulation.

Armouring shall be applied as closely as possible over insulation in case of single core cables and over the inner sheath in case of twin, three or multi core cables with galvanized steel wires/strips conforming to IS:3975. The thickness of strip armour & nominal diameter of round wire armour shall be as per table 6(b) of IS: 7098(Part-1).

PVC outer sheath compound shall conform to the requirement of type ST-2 as per IS:5831 and applied by extrusion over insulation in case of unarmoured single core

cables or over the inner sheath in case of unarmoured twin, three or multi core cables & over armouring in case of armoured cables. The outer PVC sheath compound shall be treated to be anti-rodent and anti-termite.

Cables shall be suitable for direct laying in open and in trenches.

Cables shall be suitable for operation at a power frequency voltage 10% higher than rated voltage.

Core Identification

The cores shall be identified as per referred IS.

Cable Identification & Marking

The following shall be marked (indented or printed or embossed) on the outer sheath of the cable throughout the length at every meter of the cables :

- a) Manufacturer's Name or Trade name
- b) Voltage grade.
- c) Year of Manufacture
- d) Running length shall be on outer sheath
- e) Improved fire performance type (FR-LSH).

The following shall be clearly marked on each of the cable drums:

- a) Name of the manufacturer
- b) Cable size and length
- c) Number of cores
- d) Voltage Grade
- e) Cable code as per IS: 7098
- f) Direction of rotation of the cable drum
- g) Gross weight (approximately)
- h) Manufacturer's name or his Trade name.

- i) Standard mark of LSI on cable drum
- j) Cable utility identification '**Electric**'
- k) Improved fire performance type (FR-LSH).

INSPECTION & TESTING

Inspection

Cable shall be subjected to inspection by third party agency (**i.e Government / Public Sector Undertaking agencies only**) authorized by the KPL and witnessed by KPL at the manufacturer's works. The cost of third party inspection agency and the expenses for the witness by the KPL representative shall be borne by the contractor

The inspection call notice shall be given at least 1 (one) weeks before the date of inspection.

Four sets of the inspection report shall be submitted to the owner for obtaining dispatch clearance.

Testing

Routine tests shall be carried out by the manufacturer on all High mast towers at manufacturer's work.

- a) Conductor Resistance Test
- b) High Voltage Test (Optional on special request)
- c) Insulation Resistance Test

Acceptance tests shall be carried out on each size and type of cable manufacturer in presence of Owner's representative and/or representative of agency authorized by Owner. The following shall constitute minimum Acceptance Test:

- a) Conductor Resistance Test
- b) Test for thickness of insulation and sheath
- c) Hot set test for insulation
- d) Tensile Strength and elongation at break test for insulation and sheath
- e) High Voltage Test

- f) Insulation Resistance (Volume Resistivity) Test
- g) Oxygen Index Test & Flame Retardance Test
- h) Dimensional Check
- i) Random checking of conductor area for each size of cable
- j) Tests for determining anti rodent and anti termite properties of outer sheath
- k) Meggar Test on each cable drums

Since the above tests are conducted at manufacturer's works, it is enough if the vendor produces copies of these test certificates with drum numbers from which short lengths are cut.

Manufacturer shall provide certified test reports (Routine & Type) for review during inspection.

DRAWINGS, DATA & MANUALS

General

The Owner's approval of the QAP and drawings shall not relieve the Vendor of his responsibility for supplying conforming with the relevant specifications and standards or of any mistakes, errors or omissions in the drawing.

Documents to be submitted on PO placement

The following documents of the offered cables shall be submitted after placement of purchase order, for owner's approval:

Quality Assurance Plan (QAP)

Technical data sheet

Any other document / drawing requested by the owner

Documents to be submitted for Dispatch clearance

One set of documents (corresponding to documents mentioned above) shall be submitted along with the inspection report for issuance of the dispatch clearance.

Any other relevant drawing, document or data necessary for satisfactory installation, termination, energisation & maintenance.

Documents to be submitted with Delivery

The Vendor shall submit two sets of documents (to each consignee) at the time of effecting delivery.

PACKING & FORWARDING

Cables shall be packed in strong wooden/steel drums so as to avoid any damage to the cable during transit and handling at site. Each end of the cable shall also be sealed with non-hygroscopic material to prevent the ingress of moisture.

An extra quantity of six numbers end-caps made up of non- hygroscopic material are to be supplied spare with each drum of cable to use them on cut lengths at site in order to prevent ingress of moisture during laying of cables. These end-caps shall be separately packed in an identifiable box to be dispatched along with cables.

Unless specifically mentioned in Specific requirements, standard cable Length per drum shall is as follows:

Cable quantity less than standard length indicated above shall be supplied in single length. The reference no of the cable drum from which this cable is cut is mentioned with relevant test reports of the particular drum for acceptance.

The tolerance of (+) 3% shall be permissible for cable length per drum.

GUARANTEE

The cables shall be guaranteed for trouble free operation during the defect liability period. In case the cable(s) is found defective or failed at the location of their installation, supplier shall have to replace the entire lot of cable(s) free of cost during the defect liability period.

CODES AND STANDARDS

The cables and its associated materials/parts shall be designed, manufactured & tested conforming to latest editions of the applicable Indian Standards and or IEC standards, including the following standards :

a)	IS 7098 (Part I)	-	Specifications for cross linked polyethylene insulated PVC sheathed cables (For working voltages up to and including 1100 volts)
b)	IS- 5831	-	Specifications for PVC insulation and sheath of electric cables
c)	IS- 8130	-	Specifications for Conductors for insulated electric cables and flexible cords.

d)	IS- 3975	-	Low carbon galvanized steel wires, formed wires and tapes for armouring of cables – specifications
e)	IS: 10810	-	Methods of test for cables
f)	Any other equivalent IS code or codes not mentioned above but applicable for manufacturing/ testing for cables.		

The necessary / required no. of straight through joint kits for LTUG cable shall be provided by the contractor depends upon the supply of cable in the drums which shall be included in the cost of supply of cable.

3.6.3.3 LED Lighting fixture

3.6.3.3.1: 300Watts LED Flood Light Luminary suitable for High mast Tower:

Housing

The housing shall be Pressure die-cast aluminium alloy for housing (heat sink) for effective thermal management, sturdiness & excellent corrosion resistant. Suitable type gland is used for maintaining ingress protection.

Cover

Tempered protective toughened glass, thermal shock and impact resistant (IK>05) fixed to the housing with SS screws.

Finish

Epoxy powder coated after phosphochromate treatment. The luminary shall be IP66 Protected.

Control gear

In-built electronic driver with APFC, THD<20%, Output Short Circuit Protection, Surge Voltage Protection, Over Voltage Protection & other reliability test as per IS 15885 Part-2/Sec 13. The LED driver will have an inbuilt current controlled with tight settable current. External surge voltage protection device of not less than 10KV to be provided in addition to the inbuilt surge protection device within the enclosure of light fitting in addition to the existing surge protection.

Lamp

High efficiency long life LED chip in modules with colour reading index (Ra) >70 and lumen efficacy of ≥ 100 lumen/watt with suitable lens to ensure better uniformity of light distribution. The LED shall have a colour temperature of 5700 - 6500K. The tolerance shall be as per ANSI standard. The total lumens output shall be minimum 30000.

The luminary shall have the following features and specifications.

- Ensures zero maintenance
- No UV & IR radiations
- Operating Temp. range : -10°C to $+50^{\circ}\text{C}$
- Storage Temp. range : -10°C to $+80^{\circ}\text{C}$
- Power Factor shall be greater than 0.95(>0.95)
- LED will have a working life of minimum 50000 burning hours.
- Operating voltage shall be 140V-270V A.C.
- The power consumption shall be lower.
- The luminary shall meet the latest IS and IEC code.
- Type : White colour
- Efficiency of the Luminary is $> 80\%$

Optics

The optics shall be high quality to enhance the performance of the luminaries and to match the required photometry.

Note: LM79 test report from Central Power and Research Institute (CPRI) / Indian Institute of Technology (IIT)/ National Test House (NTH) and LM 80 test report from the manufacturer to be submitted along with the supply of materials. The cost for testing shall be borne by the tenderer.

3.6.3.4: Technical Specifications for chemical earth electrodes

The earth electrode is made of high tensile carbon steel having dia. of 17.2mm and bonded with copper on the outer surface with molecular bonding with copper thickness of 250 microns as per IEC&UL-467. The length of the electrode shall be 3000mm for the type of soil prevalent at site. A 100mm dia bore is to be made either with mechanized drilling tool or hand

drilling and electrode shall be installed in the same. The bore shall be filled with superior conduction back filling material in dry condition or as slurry. The back filling material shall not be mixed with soil. The resistance of the earth electrode shall then be measured which should be 0.12 ohm metre as per clause 14.5d of IEEE-8-2000. The contractor shall submit test certificate obtained from the earth electrode vendor to prove that the same has been tested as per IEC-62561-7.

The earth electrodes shall be driven to a depth of not less than 3 meters below the ground level and at least 3 meters away from the building and any other earth electrodes treating the soil surrounding the electrodes with the salt, clay and charcoal in accordance with IS 3043.

The back filling compound should not be water dependent and shall not de-compose or leach out with time. The same shall contain corrosive inhibitor which should prevent corrosion of copper electrode.

Earth terminal clamp made of GI shall be fixed on the top of the rod to enable external earth strip connections.

An RCC trough of size 300x300mm with a top RCC cover shall be installed on the electrode to protect the same. The electrodes shall be numbered by engraving on the top cover as per the Indian Electricity Rules for easy identification.

3.6.3.5 Erection of Panel boxes and Pillar boxes:

Erection of outdoor panel / pillar boxes on the specified location by supply and providing necessary foundation bolts and as directed at site and suitable size brick pedestal work to be provided including supply of all materials all as directed at site.

3.6.3.6 Cable Termination :

The LTUG cable shall be terminated from the pillar box to pole with suitable compression cable gland and with necessary aluminium cable sockets (lugs) by crimping etc. with electrical connection complete. The work also includes providing copper clip around the gland and earthing with 14SWG copper wire and terminating the same to nearest earth grid.

3.6.3.7 Laying of Underground cable with bricks / HDPE pipe:

The LTUG cable shall be laid in the excavated /existing trench. The earth shall be excavated to a depth of 0.75mtr and width 300mm and the cable shall be laid. After

laying the cable, the contractor shall supply with suitable compressive strength kiln burnt standard size bricks as per IS and cover the cables with the bricks and spreaded inside the bricks along the cable route (approximately 18 bricks per meter required for covering all the three sides of the cables) and refill the trench with excavated soil, consolidation, proper levelling and disposal of surplus soil as per the instructions of engineer-in-charge. In the existing trench the cable shall be laid and secured properly on the angle iron support. The cable route marker which is made up of concrete of standard size and at the regular interval of 100mtrs, it shall be provided with suitable concrete as directed in the site and wherever the turn is there, the interval shall not be maintained. The cable shall be laid in the existing road crossing by laying of minimum 150mm dia GI pipe as required at the site. The suitable diameter of HDPE pipe along with accessories shall be used for cable laying where ever necessary as per site requirement.

3.6.3.8 CABLE ROUTE MARKER

The cable route marker shall be made up of concrete. The minimum size shall be 600mm (L) * 300mm(h) * 50mm(Thick). It shall be at least embedded in ground up to 500mm depth with engraved black letters written on yellow painted background and at the regular interval of 100 mtrs., it shall be provided with suitable concrete as directed in the site and wherever the turn is there, the interval shall not be maintained.

3.6.3.9 LTUG cable Straight through Joint Kit

The straight through joint kit shall be Heat shrinkable type and as per latest IS standard. The make approval shall be obtained from KPL before supplying of material to the site.

3.6.3.10 Cement:

Cement shall be of approved brand and any of the following grades and shall conform to the Indian standards.

- (a.) 43 grade OPC - IS 8112
- (b.) 53 grade OPC - IS 12269.

3.6.3.11 GI Flat;

The flat shall first be fastened on one side of the panel, leaving adequate length of flat, which shall be taken over to the other side i.e. to the earth busbar, switch-

board, pole, continuous earth flat for Highmast tower and Electrical panels as per the details of IS:3043-1987. No joint on the earth lead conductor is permitted. Every care shall be taken to ensure that the ends of the flats have been securely clamped by the bolt on cleaned surface of the plate and establish a good electrical contact.

3.6.3.12 Bolt and Nuts:

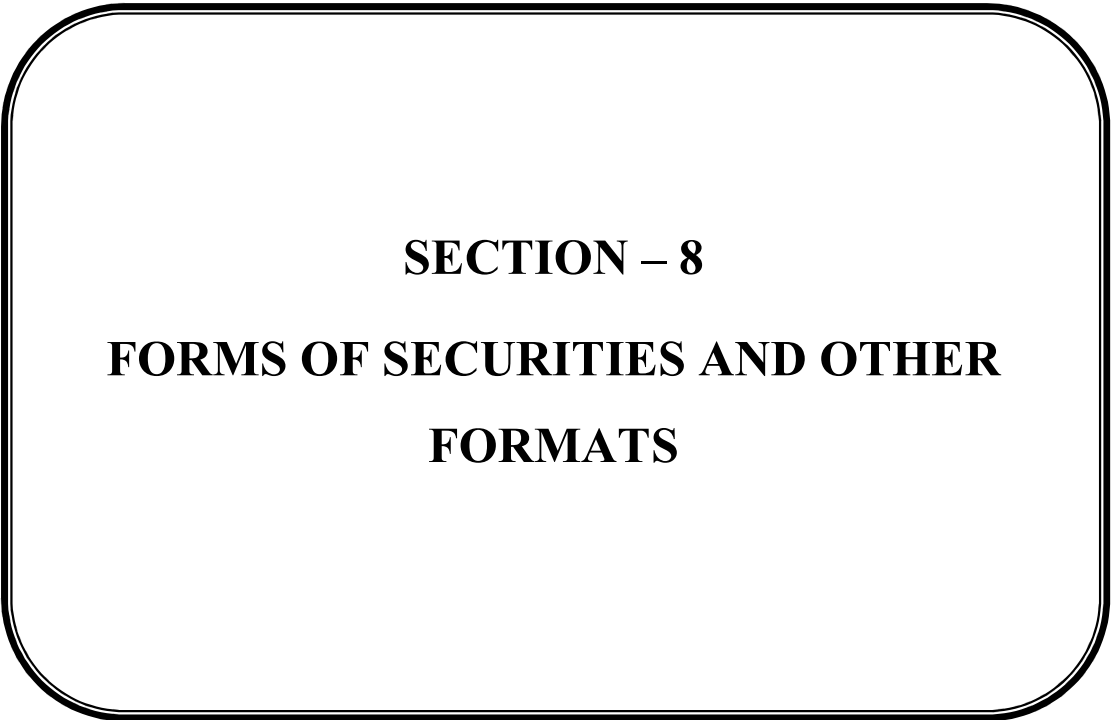
Bolts and nuts made up of Stainless steel only shall be used in the entire works except foundation bolts and nuts. The foundation bolts and nuts shall be made up of G.I.

LIST OF APPROVED MAKES	
MCCB / MCB	L&T / Siemens / Schneider / Havells / ABB
LED Light fittings	Crompton / Bajaj / Philips / Havells / Wipro
LT UG CABLE	Unistar / POLYCAB / KEI / Havells
Multifunction meter	Schneider / secure/socomec/cadel
LT PANELS / BUILDERS	CPRI CERTIFIED UNITS
High mast tower	Crompton / Bajaj / Valmont
Contactors	L&T / Siemens / Schneider / Havells
Electronic timer	L&T / Siemens / Schneider / Havells / HPL
Earth electrode	JEF ECO Safe/Pentagon/Spark/Excel
Indication Lamps	Techniq/L&T/Siemens
SELECTOR SWITCH	SALZER / KAYCEE
PVC INSULATED COPPER CONDUCTOR WIRES	
UPTO 6 SQ.MM.(FRLS)	FINOLEX / RR KABEL / ASMON / POLYCAB / ORBIT \KUNDAN
Note:	
For all other items, not listed above, prior approval is to be taken from KPL before procurement	



SECTION – 6
DRAWING

No Drawing



SECTION – 8
FORMS OF SECURITIES AND OTHER
FORMATS

FORMS OF SECURITIES AND OTHER FORMATS

Acceptable forms of securities are annexed. Bidders should not complete the performance security form at this time. Only the successful bidder will be required to provide performance in accordance with one of the forms, or in a similar form acceptable to the Employer.

SPECIMEN BANK GUARANTEE**PERFORMANCE GUARANTEE/SECURITY DEPOSIT**

(To be executed on Rs.100/-non-judicial stamp paper)

[The bank, as requested by the successful Tenderer, shall fill in this form in accordance with the instructions indicated]

1. In consideration of the Board of Directors of Kamarajar Port Limited incorporated by the Companies act, 1956 (hereinafter called "The Board" which expression shall unless excluded by or repugnant to the context or meaning thereof be deemed to include the Board of Directors of Kamarajar Port Limited, its successors and assigns) having agreed to exempt _____ (hereinafter called the "contractor")

(Name of the contractor/s)

from the demand under the terms and conditions of the contract, vide _____'s letter No. _____.(Name of the Department) date ____ made between the contractors and the board for execution of _____ covered under Tender No. _____ dated ____ (hereinafter called "the said contract") for the payment of security deposit in cash or Lodgement of Government Promissory Loan Notes for the due fulfilment by the said contractors of the terms and conditions of the said contract, on production of a Bank Guarantee for Rs. _____ (Rupees _____) only we, the (Name of the bank and address) _____ (hereinafter referred to as "the Bank") at the request of the contractors do hereby undertake to pay to the Board an amount not exceeding Rs. _____ (Rupees _____) only against any loss or damage caused to or suffered or which would be caused to or suffered by the Board by reason of any breach by the contractors of any of the terms and conditions of the said contract.

2. We, (Name of the Bank), (Name of the Branch), do hereby undertake to pay the amounts due and payable under this guarantee without any demur merely on a demand from the board stating that the amount claimed is due by way of loss or damage caused to or which would be caused to or suffered by the board by reason of any breach by the contractors of any of the terms and conditions of the said contract or by reason of the contractors failure to perform the said contract. 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 any amount not exceeding Rs. _____ (Rupees _____) only.

3. We, (Name of bank and Branch), undertake to pay to the board 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 thereunder and the contractor(s) shall have no claim against us for making such payment.

4. We, (Name of Bank and Branch) further agree with the board that the guarantee herein contained shall remain in full force and effect during the period that would be taken for performance of the said contract and that it shall continue to be enforceable till all the dues of the board under or by virtue of the said contract have been fully paid and its claims satisfied or discharged or till the (Name of the user department) of the said certifies that the terms and conditions of the said contract have been fully and properly carried out by the said contractors and accordingly discharge this guarantee. PROVIDED HOWEVER that the bank shall be the request of the board but at the cost of the contractors, renew or extend this guarantee for such further period or periods as the board may require from time to time.

5. We, (Name of Bank and Branch) further agree with the board that the board 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 contract or to extend the time of performance by the said contract or to extend the time of performance by the said contractors from time to time or to postpone for any time or from time to time any of the powers exercisable by the board against the said contractors and to forebear or enforce any of the terms and conditions relating to the said contract and we shall not be relieved from our liability by reason of any such variation or extensions being granted to be contractors or for any forbearance, act or omission on the part of the board or any indulgence shown by the board to the contractors or by any such matter or thing whatsoever which under the law relating 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. It is also hereby agreed that the courts in Chennai would have exclusive jurisdiction in respect of claims, if any, under this guarantee.

8. We, _____ bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of the board in writing.

9. *Notwithstanding anything contained herein:

a) Our liability under this Bank Guarantee shall not exceed Rs. _____

(Rupees _____ only);

b) This Bank Guarantee shall be valid up to _____; and

c) We are liable to pay the guarantee amount or any part thereof under this bank guarantee only and only if you serve upon us a written claim or demand on or before _____ (date of expiry of guarantee).

d) This guarantee shall be irrevocable and encashable / invocable at Chennai. (Please mention the Bank Branch Address in Chennai)

Date _____ day of _____ 2020

For (Name of bank)

(Name)

Signature

SPECIMEN FORMAT FOR DECLARATION

(To be executed on bidder's letter head)

To

(Project Title)

Ref: _____

The undersigned, having studied the pre-qualification submission for the above mentioned project, hereby states:

- (a) The information furnished in our bid is true and accurate to the best of my knowledge.
- (b) That in case of being pre-qualified, we acknowledge that the Employer may invite us to participate in due time for the submission of a tender on the basis of provisions made in the tender documents to follow.
- (c) When the call for tenders is issued, if the legal, technical or financial conditions, or the contractual capacity of the firm or joint venture changes, we commit ourselves to inform you and acknowledge your sole right to review the pre-qualification made.
- (d) We enclose all the required pre-qualification data format and all other documents and supplementary information required for the pre-qualification evaluation.
- (e) We also state that no changes have been made by us in the downloaded tender documents and also understand that in the event of any discrepancies observed, the printed tender document No. _____ is full and final for all legal / contractual obligations [delete if not required].

Date:

Place:

Name of the applicant:

Represented by (Name & capacity):