



SCHEDULE OF TENDER (SOT)

a	NIT NO & Date	MK/ P.47-75 /ET-62/ 2002-23 dated 18.01.2023	
b	Name of Work	Supply, installation and commissioning of PLC based Control system for automated sequential operation of material handling equipments in Garnet	
c	MODE OF TENDER E-Procurement System.	Public Tender E-Procurement System. www.mstcecommerce.com/eprochome/irel	
d	E-Tender NO	IREL/Kanyakumari/22-23/ET 62	
e	Date of NIT (available to parties to download)	18.01.2023	
f	Date of Starting of online Pre-bid meeting	NA	
g	Date of Closing of online Pre-bid meeting	NA	
h	Estimated Contract Value	₹36,43,793/-	
i	i) Tender Document Charges(TDC) Note: Company/Unit registered with MSME/NSIC are exempted from payment of TDC provided they submit valid MSME/NSIC certificate along with techno-commercial bid and to ensure that certificate pertains to the class of item/works for which tender is floated. Govt Undertaking /PSUs are exempted from payment of TDC	₹590/- (Rupees five hundred and ninety only) Payment of TDC by RTGS/ NEFT in favour of M/s IREL (India) Limited., RTGS Details – As per Annexure - IX.	
	ii) Earnest Money Deposit(EMD) Note: PSU, State Govt. Undertakings are exempted from payment of EMD. MSME/SSI units are exempted from payment of EMD provided they submit valid MSME/ NSIC certificate along with techno-commercial bid and to ensure that certificate pertains to the class of item/works for which tender is floated.	₹36,438/- (Rupees Thirty six thousand four hundred thirty eight only) which is inclusive of GST	
	iii) Transaction Fee Note: Please note that vendors will have the access to online e-tender only after Transaction fee by NEFT in favour of MSTC Limited, Kolkata.	₹1822/- +₹328/- (Rupees Two thousand one hundred and fifty only) which is inclusive of GST Note: Please note that vendors will have the access to online e-tender only after Transaction fee is paid vide RTGS/NEFT or through Online payment. In order to provide competitive bidding it has been decided that transaction fee paid by the bidders shall be reimbursed back to them after finalization of tender. However, for participation in tender the transaction fee is to be borne by the bidder.	
j	Date of Starting of e-Tender for submission of on line Techno-Commercial Bid and price Bid at www.mstcecommerce.com/eprochome/irel	18.01.2023 at 14.00 Hrs	
k	Date of closing of online e-tender for submission of Techno-Commercial Bid & Price Bid.	03.02.2023 at 14:00 Hrs	
l	Date & time of opening of Part-I(i.e.Techno-Commercial Bid)	03.02.2023 at 14:30 Hrs	
m	Date & time of opening of Part-II (i.e. Price Bid)	Shall be informed separately.	
n	Validity of Tender	120 days from the date of opening of tender.	
o	Delivery/ Completion Period	As per Annexure -IV	
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IMPORTANT INSTRUCTIONS FOR E-PROCUREMENT

Bidders are requested to read the terms & conditions of this tender before submitting their bids.

1	<p><u>Process of E-tender :</u></p> <p><u>A. Registration: The process involves vendor's registration with MSTC e-procurement portal which is free of cost. Only after registration, the vendor(s) can submit his/their bids electronically. For queries related to registration with MSTC, prospecting vendors may take help from dedicated help-desk no. 033-22901004. Electronic Bidding for submission of Technical Bid as well as Commercial Bid will be done over the internet. The Vendor should possess Class III signing type digital certificate. Vendors are to make their own arrangement for bidding from a P.C. connected with Internet. MSTC is not responsible for making such arrangement. (Bids will not be recorded without Digital Signature).</u></p> <p><u>SPECIAL NOTE: THE TECHNICAL BID AND THE COMMERCIAL BID HAS TO BE SUBMITTED ON-LINE AT www.mstcecommerce.com/eprochome/irel</u></p> <p>1). Vendors are required to register themselves online with www.mstcecommerce.com → e-Procurement → PSU/Govt depts → Select IREL(India) Limited Logo → Register as Vendor -- Filling up details and creating own user id and password → Submit.</p> <p>2). Vendors will receive a system generated mail confirming their registration in their email which has been provided during filling the registration form.</p> <p>In case of any clarification, please contact IREL (India) Limited / MSTC, (before the scheduled time of the e- tender).</p> <p>Contact person of Tendering Authority:</p> <ol style="list-style-type: none">1. Shri V Ravi Kumar Dy General Manager (Finance & Accounts) - Purchase Mobile No: +91 9916133325 Land phone: 04651-200402 Email: purchase-mk@irel.co.in2. Smt A.Sylvia Catherine Dy Officer (Purchase) Mobile No: +91 9969930014 Email: purchase-mk@irel.co.in <p>Contact persons (MSTC Ltd):</p> <ol style="list-style-type: none">1. Shri Damodaran Manager Mobile No : +91 9841002253 Land phone 044 28285099 Email : damodaran@mstcindia.co.in2. Shri M.H.Jain Dy Manager Mobile No : +91 9721277969 Email : mhjain@mstcindia.co.in <ol style="list-style-type: none">1. Help desk Land phone : 033 40645207, 033 40645316, 033 40609118, 033 22831002, 033 22891401, 033 22891005, 033 22901004, 033 22895064
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	<p><i>B) System Requirement:</i></p> <p><i>i) Windows 7 or above Operating System</i></p> <p><i>ii) IE-7 and above Internet browser.</i></p> <p><i>iii) Signing type digital signature</i></p> <p><i>iv) Latest updated JRE 8 (x86 Offline) software to be downloaded and installed in the system. To disable “Protected Mode” for DSC to appear in The signer box following settings may be applied.</i></p> <ul style="list-style-type: none"> • <i>Tools => Internet Options => Security => Disable protected Mode If enabled- i.e, Remove the tick from the tick box mentioning “Enable Protected Mode”.</i> • <i>Other Settings:</i> <p><i>Tools => Internet Options => General => Click On Settings under “browsing history/ Delete Browsing History” => Temporary Internet Files => Activate “Every time I Visit the Webpage”.</i></p> <p><i>To enable ALL active X controls and disable ‘use pop up blocker’ under Tools→Internet Options→ custom level (Please run IE settings from the page www.mstcecommerce.com once)</i></p>
2	<p>The Techno-commercial Bid and the Price Bid shall have to be submitted online at www.mstcecommerce.com/eprochome/irel. Tenders will be opened electronically on specified date and time as given in the Tender.</p>
3	<p>All entries in the tender should be entered in online Technical & Commercial Formats without any ambiguity.</p>
4	<p>Special Note towards Transaction fee:</p> <p>The vendors shall pay the transaction fee using “Transaction Fee Payment” Link under “My Menu” in the vendor login. The vendors have to select the particular tender from the event dropdown box. The vendor shall have the facility of making the payment either through NEFT or Online Payment. On selecting NEFT, the vendor shall generate a challan by filling up a form. The vendor shall remit the transaction fee amount as per the details printed on the challan without making change in the same. On selecting Online Payment, the vendor shall have the provision of making payment using its Credit/ Debit Card/ Net Banking. Once the payment gets credited to MSTC’s designated bank account, the transaction fee shall be auto authorized and the vendor shall be receiving a system generated mail.</p> <p>NOTE:</p> <ol style="list-style-type: none"> 1. Please note that vendors will have the access to online e-tender only after Transaction fee is paid vide RTGS/NEFT or through Online payment. 2. In order to provide competitive bidding it has been decided that transaction fee paid by the bidders shall be reimbursed back to them after finalization of tender on submission of payment details transaction fee payment challan generated in MSTC website along with request letter. However, for participation in tender the transaction fee is to be borne by the bidder. 3. Bidders are advised to remit the transaction fee well in advance before the closing time of the event so as to give themselves sufficient time to submit the bid.
5	<p>Information about tenders /corrigendum uploaded during the process till finalization of tender by MSTC. Hence the vendors are required to ensure that their corporate email I.D. provided is valid and updated at the time of registration of vendor with MSTC. Vendors are also requested to ensure validity of their DSC (Digital Signature Certificate).</p>
6	<p>E-tender cannot be accessed after the due date and time mentioned in NIT.</p>
7	<p>Bidding in e-tender :</p> <ol style="list-style-type: none"> a) Vendor(s) need to submit necessary EMD, Tender fees and Transaction fees (If ANY) to be eligible to bid online in the e-tender. Tender fee is non refundable. No interest will be paid on EMD. EMD of the unsuccessful vendor(s) will be refunded by the tender inviting authority after finalization of the order.

	<p>b) The process involves Electronic Bidding for submission of Technical and Commercial Bid.</p> <p>c) The vendor(s) who have submitted transaction fee can only submit their Technical Bid and Commercial Bid through internet in MSTC website www.mstcecommerce.com → e-procurement → PSU/Govt. depts → Login under IREL (India) Limited → My menu → Auction Floor Manager → live event → Selection of the live event</p> <p>d) The vendor should allow running JAVA application. This exercise has to be done immediately after opening of Bid floor. Then they have to fill up Common terms/Commercial specification and save the same. After that click on the Technical bid. If this application is not run then the vendor will not be able to save/submit his Technical bid.</p> <p>e) After filling the Technical Bid, vendor should click 'save' for recording their Technical bid. Once the same is done, the Commercial Bid link becomes active and the same has to filled up and then vendor should click on "save" to record their Commercial bid. Then once both the Technical bid & Commercial bid has been saved, the vendor can click on the "Final submission" button to register their bid</p> <p>f) Vendors are instructed to use <i>Attach Doc button</i> to upload documents. Multiple documents can be uploaded.</p> <p>g) In all cases, vendor should use their own ID and Password along with Digital Signature at the time of submission of their bid.</p> <p>h) During the entire e-tender process, the vendors will remain completely anonymous to one another and also to everybody else.</p> <p>i) The e-tender floor shall remain open from the pre-announced date & time and for as much duration as mentioned above.</p> <p>j) All electronic bids submitted during the e-tender process shall be legally binding on the vendor. Any bid will be considered as the valid bid offered by that vendor and acceptance of the same by the Buyer will form a binding contract between Buyer and the Vendor for execution of supply.</p> <p>k) It is mandatory that all the bids are submitted with digital signature certificate otherwise the same will not be accepted by the system.</p> <p>l) Buyer reserves the right to cancel or reject or accept or withdraw or extend the tender in full or part as the case may be without assigning any reason thereof.</p> <p>m) No deviation of the terms and conditions of the tender document is acceptable. Submission of bid in the e-tender floor by any vendor confirms his acceptance of terms & conditions for the tender.</p>
8	Any order resulting from this tender shall be governed by the terms and conditions mentioned therein.
9	No deviation to the technical and commercial terms & conditions are allowed.
10	The tender inviting authority has the right to cancel this e-tender or extend the due date of receipt of bid(s) without assigning any reason thereof.
11	Vendors are requested to read the vendor guide and see the video in the page www.mstcecommerce.com/eprochome to familiarize them with the system before bidding.

PRE QUALIFICATION CRITERIA FOR THE SUPPLY, INSTALLATION AND COMMISSIONING OF PLC BASED CONTROL SYSTEM FOR AUTOMATED SEQUENTIAL OPERATION OF MATERIAL HANDLING EQUIPMENTS IN GARNET SECTION AT MINERAL SEPERATION PLANT

1. Party shall be OEM or their authorized channel partner /system integrator / dealer. In case of authorized party, OEM Authorization letter from the PLC Manufacturer must be submitted along with the offer for evaluation and without Manufacturer Authorization, the offer shall not be accepted.
2. The offered system shall be provided with End-Of-Life (EOL) support for further 10 Years from the date of supply. Certificate / letter of OEM for the above need to be submitted along with the bid.
3. Party should have a service center / office in the states of Tamilnadu / Kerala for technical support during Installation & commissioning works and after sales support during warranty. Document and address for proving the above shall be submitted.
4. Average annual financial turnover during the last 3 (Three) years, ending 31st of March 2022 should be at least **Rs. 10,93,138 /-** Documentary proof for the same shall be enclosed.
5. Party should have experience for successful execution of similar works during the last 7 (Seven) years ending 31th December 2022 as mentioned below.

Three similar completed works costing not less than the amount **Rs.14,57,517/-**

OR

Two similar completed works costing not less than the amount **Rs. 18,21,897/-**

OR

One similar completed works costing not less than the amount **Rs. 29,15,034/-**

Party shall submit all credentials including copies of work orders / Purchase order executed, work completion report / commissioning report and Performance certificate for the similar works.

Similar work means: Supply, installation and commissioning of PLC, SCADA based automation system in public sector undertaking.

GENERAL TERMS & CONDITIONS

Definition of Terms

a) Purchaser/Company / IREL

The 'Purchaser/Company/IREL' shall mean IREL (India) Limited, incorporated under the companies act, 1913 and having its registered office at Plot No. 1207, ECIL Building, Veer Savarkar Marg, Prabhadevi, Mumbai-400028.

b) Contractor/Supplier/Tenderer/Bidder

The 'Contractor/Supplier/Tenderer/Bidder' shall mean the person or company whose tender is accepted by the Purchaser and shall be deemed to include the Contractor's successors, heirs, executors, administrators, representatives and assigns approved by the Purchaser.

c) Subcontractor

The 'Sub-contractor' shall mean the person or company named in the contract for any part of the work or any person to whom any part of the contract has been sub-let by the Contractor with the consent in writing of the Purchaser and shall include his heirs, executors, administrators, representatives and assignees approved by the Purchaser.

d) Contract

The term "Contract" shall mean and include the invitation to tender, tender specification, the instructions to tenderers, letter of intent, acceptance of tender, particulars hereinafter defined in respect of the supply and delivery of materials and for the performance of services within the scope of the tender.

e) Engineer / Engineer-in-Charge (EIC)/ Officer-in-Charge (OIC)

The term "Engineer" as used herein shall mean engineer or Engineer-in-Charge (EIC) and "Officer" as used herein shall mean engineer/Officer or Officer-in-Charge (OIC) as are designated by the company.

f) Tender Specification

The term "Tender Specification" shall mean the design data, drawing schedules, broad equipment characteristics and other technical details furnished with the invitation to tender for the purpose of submitting the offer by the tenderer.

g) Contract Specification

The term "Contract Specification" shall mean the schedules, detailed designs, statements of technical data, performance characteristics and all such particulars mentioned as such in the contract.

h) Letter of Intent (LOI)

The term "Letter of Intent (LOI)" shall mean intimation by a letter to contractor that the tender has been accepted in accordance with the provisions contained in that letter.

i) HO/CO

The term "HO/CO" shall mean Head Office /Corporate Office, Plot No. 1207, ECIL Building, Veer Savarkar Marg, Prabhadevi, Mumbai-400028.

j) Site

The term "Site" shall mean the place or places envisaged by the company at which the plant and equipment supplied under the contract are to be erected and/or services are to be performed under the contract.

1. General

- 1.1 Contractor has to make own arrangement for tools and tackles, lifting equipments, transportation and any other materials and consumables required for completion of the work unless otherwise stated specifically.
- 1.2 The Contractor shall be allowed to work daily from 08.00 to 16.00 hours except on Sundays and holidays unless otherwise stated specifically.
- 1.3 The contractor shall deploy adequate skilled / semi-skilled / unskilled labourers, required for the work and carry out the work strictly as per the instruction of EIC/OIC. If required, the Contractor shall deploy additional labour in order to complete the work in shorter duration depending upon the requirement.
- 1.4 Any information/doubt regarding the details of this tender shall be clarified from the Company officials between 8 a.m. and 4 p.m. on all working days (except Sundays & holidays) over phone/mail.
- 1.5 The Company reserves the right to accept or reject any tender/offer without assigning any reason whatsoever and no tenderer shall claim over such action.
- 1.6 Water and electricity required for the work shall be provided by the Company free-of-cost.

2. Validity of Offer

Offers submitted by the tenderer shall be valid for 120 days from the date of opening of offer.

3. Contract agreement.

~~The successful Contractor shall have to execute an agreement for the due fulfillment of the contract. A stamp paper worth Rs.100/ (Rupees One Hundred only) is to be produced for executing the agreement. If the successful tenderer fails to execute the agreement within one month from the date of issue of the order,~~

4. Standards

The Machinery and Services supplied under this Contract shall conform to the standards mentioned in the Technical Specifications and, when no applicable standard is mentioned, the latest current edition or revision of the relevant Indian Standards and Codes shall be considered.

5. Scope of Order and Specifications

Contractor shall supply the material or execute the work according to the specifications enclosed and in accordance with all conditions both general and specific enclosed with order, unless any or all of them have been modified or cancelled in writing either as a whole or in part by IREL (India) Limited.

6. Inspection of site

The bidder or his representative shall be deemed to have inspected and examined the site and surroundings before submitting his tender and shall obtain the necessary information as to risks and other circumstances which may influence or affect his tender.

7. Earnest Money Deposit (EMD)

- 7.1 Tenderers shall remit EMD through NEFT/ RTGS in favour of M/s IREL (India) Limited, Manavalakurichi as mentioned in SOT. Details of payment should be uploaded in MSTC portal and E-mail to be forwarded to IREL (India) Limited at "purchase-mk@irel.co.in" clearly mentioning full postal address of the Tenderer, E-Tender No for which EMD & TDC were paid, Payment details including amount, UTR No and bank details from which payment was done.
- 7.2 Persons / Firms / Body Corporate registered with NSIC or under MSME Development Act 2006, are exempted from payment of EMD subject to the production of proof of current registration certificate in

line with the subject requirement along with the offer. Scanned copy of MSME certificate is to be uploaded.

- 7.3 The Earnest Money shall stand forfeited in favour of M/s. IREL (India) Limited without any further notice to the tenderer if:
- i. The tenderer indulges himself in any undesirable practice or malpractice.
 - ii. The tenderer during the tender validity period resiled from his offer or modifies the terms and conditions thereof in a manner not acceptable to M/s. IREL (India) Limited.
 - iii. The tenderer does not convey his written acceptance within a maximum period of 15 days from the date of issue of the work order placed on him.
 - iv. The successful tenderer does not deposit the security deposit within 30 days from the date of issue of the work order.
 - v. The successful tenderer does not execute an agreement in stamp paper as per law for due fulfillment of the contract within 30 days from the date of issue of work order

8. Security Deposit (SD)

- 8.1 The successful Contractor shall furnish a Security Deposit amounting to 3% of the total value of the contract within 21 days of placement of order or before commencement of work whichever is earlier.
- 8.2 The Security Deposit may be remitted in the following forms:
- i) Through NEFT/ RTGS in favour of M/s. IREL (India) Limited, Manavalakurichi.
 - ii) Demand draft drawn on State Bank of India in favour of M/s. IREL (India) Limited
 - iii) Irrevocable Bank Guarantee from any Scheduled / Nationalised bank acceptable to M/s. IREL (India) Limited as per Annexure XII.
- 8.3 The Security Deposit shall be for the due and faithful performance of the contract and shall remain binding notwithstanding such variations; alterations or extensions of time as may be made, given conceded or agreed to between the contractor and M/s. IREL (India) Limited under the General Conditions or otherwise.
- 8.4 The security Deposit furnished by the successful tenderer shall not carry any interest whatsoever.
- 8.5 EMD may be adjusted towards SD. However, if EMD is submitted in the form of Bank Guarantee, fresh Bank Guarantee is to be submitted towards SD in the prescribed format as per **Annexure IX**.
- 8.6 In exceptional cases of work contracts, the approving authority may consider recovering balance SD (in addition to EMD if it is given not in BG form) amount from 1st running bill of the contractor.

9. Retention money

- 9.1 Where in a contract, payment is made on progressive billing of work executed, 5% of the bill value shall be retained at the time of making payment towards rectification/defective work made as retention money.
- 9.2 The total SD and retention money together towards performance guarantee shall not exceed 10% of the contract value.

10. Refund of SD and Retention money

- 10.1 Before releasing SD or retention money in respect of supplies/works, a "No Due Certificate" shall be issued by EIC/OIC duly countersigned by head of the department after ensuring that no amounts are recoverable from the supplier/contractor.

- 10.2 EIC/OIC shall recommend release of SD and retention money after compliance by the contractor towards guarantee/warranty/performance guarantee & other related clauses as stipulated in the purchase/work order and on submission of formal claim by contractor.
- 10.3 On receipt of “no dues certificate” from EIC/OIC, SD or retention money retained in the form of B.G and / or any form shall be refunded at the earliest, if the contractor is not liable to pay any money to IREL (India) Limited under any other contract.

11. Forfeiture of SD & Retention Money

The SD & retention money shall stand forfeited in favour of IREL (India) Limited, without any further notice to the contractor in the following circumstances:

- 11.1 In case of any failure whatsoever on the part of the contractor at any time during performance of his part of the contract including the extended periods of contract, where notice is given and time for rectification allowed.
- 11.2 If the contractor indulges at any time in any subletting/sub-contracting of any portion of the work without approval of IREL (India) Limited.

12. Assignments and Subletting

- 12.1 The contractor shall not assign, sublet or transfer the contract or any part thereof or any benefit or interest therein or there under without the written consent of Company.
- 12.2 The contractor shall not sublet the whole or any part of the work without the written consent of the company and such consent, if given, shall not establish any contractual relationship between the sub-contractor (s) and the company and shall not relieve the contractor of any responsibility, liability, or obligations under the contract and the contractor shall be responsible for the acts, defaults or neglects of any sub-contractor or his agent or workmen.

13. Prices

Unless otherwise agreed to specifically in order, the price payable by IREL (India) Limited to the contractor under the order shall remain firm throughout the period of contract and shall not be subject to any escalation. The prices shall be itemized in accordance with the Price Schedule attached in Price bid and the Bidder quoted for all items as per Price bid format will only be considered. All prices in the tender shall be inclusive of all applicable taxes and all other statutory levies applicable. The Contractor is responsible and liable for remitting all statutory dues collected / included in the Price Schedule of the contract to the statutory authorities without fail. IREL (India) Limited is not responsible for remittance of such tax collections.

14. Taxes, duties & levies

- 14.1 Bidders must clearly mention their GSTIN number in the offers and invoices, IGST, CGST & SGST rates shall be clearly mentioned in the offer indicating the applicable rates in order to enable IREL (India) Limited to avail tax benefits, the contractor shall ensure submission of GSTIN Tax invoice as per the prescribed formats by the statutory authorities.
- 14.2 The Contractor shall remit the tax collected within the stipulated period to the government and file the return.
- 14.3 The Contractor's GST Compliance rating will also be considered as one of the parameter during vendor evaluation
- 14.4 Income Tax and other Taxes will be deducted at source, if applicable as per rule.
- 14.5 Any Change in taxation during the tenure of contract will be as per applicable statute.

15. Performance test

The Contractor shall be responsible for carrying out performance tests on all equipment supplied by him and/or procured by the Purchaser as indicated in the Technical specifications covered in this

Tender document, in the presence of the Purchaser's representative. This responsibility shall rest with the contractor regardless of whether the erection has been carried out by him or any other agency. On the satisfactory completion of the performance test, the Purchaser will issue an acceptance certificate on written request from the Supplier. The date of the acceptance certificate shall be considered to be the date of satisfactory completion of the performance test.

16. Alteration of specifications, patterns and drawings

During the progress of the work, the Purchaser may require deviations from, additions to or omission in the drawings, specifications and the scope of work originally agreed upon between the Contractor and the Purchaser. Such changes shall not invalidate the contract. The contractor shall make such changes of whatever character they may be, as part of the Contract. As from that date the Stores shall be in accordance with the specifications, patterns and drawings so altered which the contractor is bound to comply with. No change in the scope of the work shall be made without a written instruction issued therefore by the Purchaser. Revised drawings, bills of materials or specifications, shall also be considered as written instructions. In the event of such alteration involving a revision in the cost, the same shall be discussed and mutually agreed to taking into account the unit rates of similar items in the contract. In case of disagreement, the decision of the Purchaser, in the cost, shall be final and conclusive.

17. Patent Rights etc:

- 17.1 The contractor shall fully indemnify the purchaser against all actions, demands, claims, costs, charges and expenses arising from or incurred by reason of any infringement or alleged infringement of letters of patent, design or copy-right of any plant supplied by the contractor.
- 17.2 The Purchaser on his part warrants that any design or instruction furnished or given by him shall not be such as will cause the contractor infringe any letter of patent, registered design, trade mark, or copy-right in the performance of the contract.

18. Correspondence

All correspondence shall be in English and addressed to IREL (India) Limited drawn to the attention of the officer issuing the order, unless otherwise specifically authorized.

19. Compliance with Statutory and Other Regulations

- 19.1 The Contractor shall, in all matters arising in the performance of the Contract, conform at his own expense with the provisions of all Central or State statutes, ordinances or laws and the rules, regulations, or bye-laws of any local or other duly constituted authority and shall keep the Purchaser indemnified against all penalties and liabilities of every kind for breach of any such statute, ordinance, law, rule regulations or bye-law. The Contractor shall give all notices and pay all fees and taxes required to be given or paid under any Central or State statutes, ordinances or other laws or any regulations or bye-laws of any local or other duly constituted authority in relation to the contract.
- 19.2 **The Contractor should (a) obtain Code Nos./Account Nos. for the Workmen's Provident Fund from R.P.F.C., (b) effect recovery of Provident Fund contribution of the workmen (c) make arrangement for crediting employer's contribution and (d) maintain Workmen Provident Fund Accounts through R.P.F.C. as required. The Contractor should produce all the records pertaining to the above along with the final bill for verification by the Company.**
- 19.3 Statutory Records & Registers to be maintained by the Contractor under Mines Act
 - a. Form-A
 - b. Form-D
 - c. Form-O(Initial Medical Examination)
- 19.4 Register & Records under Contract Labour (Regulation & Abolition) Act, 1970 :
 - a. Muster Roll

- b. Wage Register
 - c. Employment Card
 - d. Wage Slip
 - e. Licence under Contract Labour (R&A) Act 1870 Contractor has to obtain Labour Licence if the number of labourers engaged by him exceeds Nineteen (19) Records required for Contractor engaging labourer(s) brought from the states other than Tamil Nadu, Under Inter-state Migrant Workmen Act:
 - (i) Inward and Outward Journey Statement in Form XV and XVI in case of Inter-state Migrant Workmen.
 - (ii) The Contractor to obtain licence under Inter-state Migrant Workmen Act, if the number of Migrant Workmen exceeds four (4)
 - f. **Contractor Enrolment / Registration Form (Annexure IX) filled by the successful contractor after receipt of work order.**
- 19.5 Minimum Wages Act, 1948
- a. The Contractor will be liable to pay to his workmen minimum wages notified from time to time by the Government of India.
 - b. Monthly wages to be disbursed in the presence of the representative of the Company before 10th of every month.
- 19.6 Employee's Compensation Act, 1923
- The Contractor is liable to pay compensation to his workmen in case of accident(s). The contractor shall produce valid insurance policy towards the same before commencement of the work. Contractor will not be permitted to commence the work without a valid policy. The contractor shall indemnify the company from all losses and expenses arising out of the delay in commencement of the work.
- 19.7 The contractor shall ensure that he shall comply with all statutory Act and Rules governing labour engagement which includes inter-alia EPF & Misc. Provisions Act 1952, Payment of Wages Act 1948, Minimum Wages Act 1948, Payment of Bonus Act 1965, Contractor Labour (Regulation & Abolition) Act, 1970, Mines Act 1952, Employee's Compensation Act, 1923, Payment of Gratuity Act 1972 etc. and shall indemnify the Company from all losses arising out of non-compliance of the statutory Act and Rule by the contractor.

20. Safety regulations

- 20.1 It shall be the sole responsibility of the Contractor for the safety and welfare of all the erection crew/workers at site and they shall abide by the rules and regulations of the Company regarding working, etc. The contractor shall comply with all statutory provisions under Mines Act, Atomic Energy Act, Industrial Disputes Act, Contract Abolition Act, Employee Compensation Act, Minimum Wages Act and the respective rules made there under in all matters connected within their services, safety, etc. and absolve the Company fully from any or all claims/disputes/damages, etc.
- 20.2 The contractor shall ensure that all his employees working within IREL (India) Limited premises/mine possess valid Vocational Training Certificates issued under Mines vocational Training Rules 1966. Persons not possessing valid vocational training certificates have to undergo Vocational Training (VT) at IREL (India) Limited, MK's VT centre and shall be allowed only after completion of VT duly certified by VTO, MK. Period of training shall be as directed by I/c VT based on the type and nature of job contained in the WO.
- 20.3 The Contractor shall ensure that all his employees have to undergo Initial Medical Examination as per Mines Rules, 1955. The contractor shall submit the Medical Examination Certificate (Form-O) of all his employees before commencement of work.
- 20.4 The Contractor should strictly follow the safety procedures detailed in the AERB Safety Guide for works contracts.

- 20.5 The successful Contractor shall furnish in advance, a list of man - power employed by them daily to the Company authorities and shall keep a register for this purpose. The Contractor should abide by all Safety and security regulations of the Company and provide personal protective equipments to the employees. All safety precautions are to be taken before commencing the work. The contractor shall start the daily work after obtaining Safety permit from the company and should strictly follow the instruction of safety permit.
- 20.6 The contractor shall ensure compliance of all requirements of statute and the system related to safety. Non compliance of any safety laws/directive of EIC/OIC shall attract penalty. Amount of penalty imposition shall be at the sole discretion of EIC/OIC which shall be binding on the contractor and cannot be claimed for its waiver.
- 20.7 **“Safety belts with double lanyard only are to be used for work at height”**

21. Security regulations

The Contractor shall abide by all the security regulations at site promulgated by the Purchaser from time to time. The Contractor shall provide identity badges for all his personnel, which must be properly displayed by them at site. IREL (India) Limited shall have the right to instruct the contractor to recall his personnel in case of unsatisfactory behavior. The Contractor shall undertake the work strictly as directed by IREL (India) Limited officials.

22. Accident or Injury to Workmen

The Contractor shall be solely liable for any accident or injury that may happen to any of his personnel engaged in the Contract. The company shall not be liable for, or in respect of, any damage or compensation payable at law in respect of, or in consequence of, any accident or injury to any personnel in the employment of the contractor and the contractor shall indemnify and keep indemnified the company against all such claims, damages, compensations and proceedings. The Contractor shall forthwith report to the company all cases of accidents to any of his personnel and shall make every arrangement to render all possible assistance and aid to the victims of the accident.

23. Method of black listing vendors

- 23.1 Being responsible for three times failure to supply/execute the contract as per order in three years duration shall be considered for black listing vendors name from approved list of vendors while periodical review/updating of vendor list. The black listed vendor shall not be considered for a period of one year from the date of black listing. However competent authority can revoke any black list order subject to adequate justification for the same.
- 23.2 Further the competent authority can blacklist the bidder, if the bidder changes terms & conditions or prices or withdraw his quotation subsequent to the date of opening.
- 23.3 Further, the vendor shall be banned from doing any business with the company in case of:
- (a). If security considerations including question of loyalty to the state so warrant .
 - (b). If the proprietor of the firm, its partner or representative is convicted by a court of law following prosecution for offences relating to business dealings .
 - (c) If there is strong justification for believing that the proprietor or employee or representative of the firm has been guilty of malpractice such as bribery, corruption, fraud, substitution of tenders, interpolation, misrepresentation, evasion or habitual default in payment of any tax levied by law, etc.

24. Basis of Evaluation

Unless provided for otherwise; bids shall be evaluated to arrive at overall L1 status considering the landed cost net of GSTIN credit / loading as the case may be for placement of order among those bidders whose offers are techno-commercially acceptable to IREL (India) Limited.

25. Liquidated Damages

For delays attributable to the supplier/contractor liquidated damages shall be levied at the rate of 0.5% per week or part thereof on the value of supply/work for each week of delay subject to a maximum of 5% of the total contract value. However if separate period of completion is specified for certain item of work or group of items of work at the time of issuing the order the liquidated damage can be levied accordingly for the value of the item of work or group of items of work. The Purchaser may at his option and without prejudice to any other method of recovery, deduct the amount of such damages from any moneys in his hands due to the Contractor. The payment or deduction of such damages shall not relieve the Contractor from his obligations to complete the work or from any other of his obligations and liabilities under the contract.

26. Secrecy

The Contractor shall not at any time during the pendency of the contract or there after disclose any information furnished to them by the Purchaser or any drawings, designs, reports and other documents and information prepared by the Contractor for this contract, without the prior written approval of the Purchaser except in so far as such disclosure is necessary for the performance of the Contractor's work and service hereunder.

27. Indemnity

The contractor shall indemnify the Purchaser and keep the Purchaser indemnified to the extent of the value of free issue materials to be issued till such time the entire contract is executed and proper account for the free issue materials is rendered and the left over/surplus and scrap items are returned to the Purchaser. The contractor shall not utilize the Purchaser's free issue materials for any job other than the one contracted out in this case and also not indulge in any act, commission or negligence which will cause/result in any loss/damage to the Purchaser and in which case, the Contractor shall be liable to the Purchaser to pay compensation to the full extent of damage/loss and undertake to pay the same.

28. Termination of Contract

IREL (India) Limited reserves the right to terminate the contract at any time, without assigning any reasons by giving two weeks' notice in writing and without any liability to pay any compensation. However, the contractor shall have no similar right to terminate the contract.

29. Death, Bankruptcy, etc.

If the Contractor dies or dissolve or go into bankruptcy, or being a corporation cause to be wound up except for reconstruction purposes or carry on its business under a receiver, the executors, successors or other representatives in law of the estate of the Contractor or any such receiver, liquidator, .or any person in whom the contract may become vested, shall forthwith give notice thereof in writing to the Purchaser and shall remain liable for the successful performance of the contract, and nothing aforesaid shall be deemed to relieve the Contractor or his successors of his or their obligations under the contract under any circumstances. The Purchaser may terminate the Contract by notice in writing to the Contractor.

30. Force Majeure

Force majeure is an event beyond the control of supplier/contractor and not involving the supplier's/contractor's fault or negligence and which is not foreseeable. Such events may include, but are not restricted to acts of the purchaser/contractor either in its sovereign or contractual capacity, wars or revolution, hostility, acts of public enemy, civil commotion, floods, explosions, epidemics, quarantine restrictions, strikes, lockouts and freight embargoes or any other event which

IREL (India) Limited may deem fit to consider so. The decision about force majeure shall rest with IREL (India) Limited which shall be final and binding.

If there is delay in performance or other failures by the supplier/contractor to perform obligations under its contract due to event of a Force Majeure, the supplier/contractor shall not be held responsible for such delays/failures.

If a Force Majeure situation arises, the supplier/contractor shall promptly notify the purchaser in writing of such conditions and the cause thereof within fifteen days of occurrence of such event. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as reasonable/practical and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of Force Majeure for a period of exceeding sixty days, IREL (India) Limited may at its option terminate the contract without any financial repercussion on either side.

31. Arbitration

All disputes and differences of any kind what so ever arising out of or in connection with the contract or carrying out of the works (whether during the course of works or after their completion and whether before or after determination, abandonment or breach of contract) shall be referred to and settled by the person authorized and notified in writing by IREL who shall state his decision in writing. Such a decision may be in the form of a final certificate or otherwise, within a period of 30 days from the date of receipt of such reference to them.

If the Bidder is dissatisfied with the decision of such authorized person, then he may within 30 days of receipt of such decision send a written appeal to IREL, represented by the Chairman and Managing Director at the registered office, Mumbai for Arbitration, in accordance with the provisions of the Arbitration and Conciliation Act and the Rules framed there under from time to time, and for the time being in force. Such written appeals should however specify only those matters in dispute, which have been referred to such authorized person but not satisfied with the decision and the reasons leading to his dissatisfaction.

32. Legal Capacity

The tenderer shall satisfy the Purchaser that he is competent and authorized to submit the tender and/or to enter into a legally binding contract with the Purchaser. To this effect, any person giving a tender shall render documentary evidence that his signature on the tender, submitted by him, is legally binding upon himself, his firm or Company, as the case may be.

33. Jurisdiction

The courts within the local limits of whose jurisdiction the place from which the purchase order is issued is situated only shall, subject to Arbitration Clause, have jurisdiction to deal with and decide any matter arising out of this contract.

The contract shall be deemed to have been entered into in MANAVALAKURICHI and all cases of action in relation to the contract will thereof be deemed to have arisen within the jurisdiction of Civil Court of NAGERCOIL / THUCKALAY

34. Police Verification Certificate

The successful contractor is responsible to produce recent Police Verification Certificate (PVC) for himself and all contract workmen to be engaged in IREL (India) Limited, prior to commencement of

work and PVCs are to be submitted to Security-in-Charge without fail. Non submission of PVCs would entitle disqualification of contractor from entering in IREL (India) Limited premises.

35. Risk Purchase Clause

After award of the contract, if the tenderer fails to execute the contract as per tender or at any time repudiates the order, IREL (India) Limited have the right to forfeit the EMD/SD and execute the contract through other agencies at the risk and cost of the contractor. The cost differences between the alternative arrangements and total contract value will be recovered from the contractor along with other incidental charges. In case of execution of contract through alternative sources and if price is lower, no benefit on this account will be passed on to the contractor.

36. Cancellation

IREL (India) Limited reserves the right to cancel the Purchase/work/service/consultancy Order or any part thereof and shall be entitled to rescind the contract wholly or in part in a written notice to successful tenderer if;

- Successful tenderer fails to comply with the terms of the purchase/work/service/consultancy order.
- Successful tenderer fails to convey written acceptance of the Order within 15 days of receipt at their end.
- Successful tenderer fails to deliver goods on time and / or to replace the rejected goods promptly.
- Successful tenderer becomes bankrupt or goes into liquidation.
- Successful tenderer make a general assignment for the benefit of creditors and a receiver is appointed for any of the property owned by successful tenderer fails.

Upon receipt of the said cancellation notice the successful tenderer shall discontinue all work on the Purchase/work/service/consultancy order and matters connected with it. IREL (India) Limited in that event will be entitled to procure the requirements in the open market and recover excess payment over Successful tenderer's agreed price, if any, from reserving to itself the right to forfeit the EMD and/or security deposit, if any, submitted by the successful tenderer against the contract.

37. IREL is registered with the RXIL (TReDS) platform. MSE bidders are requested to get registered with RXIL (TReDS) platform to avail the facility as per the GOI guidelines.

38. MSE preferences and Public Procurement Policy (Make in India) as applicable.

39. GENERAL INFORMATION OF PLANT SITE - MANAVALAKURICHI

1. Location : IREL (India) Limited
2. Works Terrain : Sandy Plain Terrain
3. Climatic Conditions: The climatic conditions pertaining to the plant site are generally as indicated below:
 - Maximum of mean daily temperature : 35°C
 - Minimum of mean daily temperature : 20°C
 - Relative humidity maximum : 95%
 - Relative humidity minimum : 90%
 - Maximum mean monthly wind velocity : 60 KMPH
 - Maximum wind velocity between 40 KMPH... / .60 KMPH
4. Susceptibility to Earthquake : ZONE III
5. Railways:

The Broad gauge line of Southern Railway connecting Chennai and Cape Comorin passes at a distance of 20km from the boundary of the plant site. The major

Railway stations are (i) Nagercoil at a distance of about 20 km and (ii) Eraniel at, a distance of about 13 km.

6. Sea Ports:

The nearest seaport Tuticorin is approximately 160 km by road.

7. Airport:

The nearest airport is at Thiruvananthapuram at a distance of 67 km by road. From Thiruvananthapuram flights are available to all major towns of India.

8. Communications:

Postal and Telephone facilities are available at

Post : Manavalakurichi

Telephone : (04651) 237255 to 237257

Fax : 04651 - 237220

E-mail : : purchase-mk@irel.co.in, irelmk@dataone.in

Website : www.irel.co.in

The provision of the above information is for the Contractor's general guidance only and does not relieve him of his responsibility to satisfy himself of the site condition and sufficiency of the tender. No claim whatsoever shall be admissible or any extra shall be allowed on these accounts.

SPECIAL CONDITIONS OF THE CONTRACT

TECHNICAL SPECIFICATION FOR THE SUPPLY, INSTALLATION AND COMMISSIONING OF PLC BASED CONTROL SYSTEM FOR AUTOMATED SEQUENTIAL OPERATION OF MATERIAL HANDLING EQUIPMENT IN GARNET SECTION AT MINERAL SEPARATION PLANT

I. SCOPE OF WORK

- a. Supply, installation and commissioning of control system for Sequential starting and stopping of material handling equipment by using latest version of PLC. This includes introduction of relays along with necessary wirings in the existing 2 Nos of MCC panels and cabling to new PLC system with latest version of SCHNEIDER/ABB/SIEMENS/EMERSON make Controller & I/O modules. Programming and commissioning of the control system along with latest version of software compatible with the above PLC makes.
- b. SCADA software is to be used for both supervisory and management information functions, with latest version of SCADA compatible with above PLC through high speed Ethernet for meeting the required specifications. PLC System should be with a built-in Ethernet backbone with speed at 100 Mbps or better. This work includes programming of required SCADA screens and PLC logic with associated functions including data logging, mimic representation, alarms, permissive and log sheet generation as per required format in new high- end PC with latest windows operating system and demonstration of the integrated performance of SCADA.
- c. For the installation of PLC circuit, the New Relay panel / panels and PLC control panel need to be erected. For taking the signals from field Starter panel necessary contactors / relays in all the signal points need to be considered along with field cabling for individual starters from PLC Control panel.

II. DETAILS OF THE EXISTING MOTOR CONTROL CENTRE PANELS

- a. Garnet section is having 2 Nos of MCC panels MCC - IV & MCC - V located in the Garnet section. There are 70 Nos. of DOL starter feeders for the control of Motors of material handling equipments / process equipments.
- b. Each motor is having start / stop push button controls at MCC, near the equipment (Local), On /OFF indications are available at MCC. Presently all the motors are operated from MCC or Local based on the requirement.
- c. It is proposed to operate all the material handling equipments / process equipments in Auto mode with sequential start / stop. If any material handling equipment is tripped/stopped, previous feeding equipments should be tripped/stopped.
- d. A relay panel (s) of suitable size (with 110V/230V, AC relays of 224 Nos) are to be fixed at the specified location. From MCC to Relay panel, all the Digital input cables have to be laid and terminated. Relay panel(s) to PLC panel Connection must be established.
- e. Cables as required for Digital outputs are to be laid and terminated between MCC and PLC panels.

III. REQUIREMENTS OF NEW PROCESS CONTROL SYSTEM

- a. Proposed control system is intended to carry out SCADA based operation (Manual / Auto) of material handling equipment / process equipments. This system has to control starting and stopping of equipment on sequential basis in auto & through conventional manual mode. There should be a selector switch for Manual / Auto selection. In case of Manual mode, operator should be able to Start & Stop each motor independently from MCC or Local. Whereas in Auto mode, operator should not be able to start any motor from the MCC /Local however, all stop commands from field should be possible. In case of breakdown of PLC system, it should be possible to run the equipment in manual mode.
- b. 2 Nos of Pre start warning alarm are to be fixed in the Garnet circuit and 2 Nos. of trip alarm with acknowledge facility shall be provided in both PLC room and SCADA room. Pre-start alarm will be activated before the starting of the section in auto mode. 3 core, 1.5 Sq. mm armoured copper cable of length 200 meters is to be laid for the above alarms.
- c. All Digital Inputs are to be interlinked to new PLC system by incorporating necessary relays of 110 V/230V AC supply (224 Nos or Higher). All Digital Output commands to be wired and linked to the MCC from PLC panel for Starting and Stopping operation through 24VDC relays (160 Nos or Higher). All analog inputs are to be wired & linked to field parameters (8 analog inputs or more.)
- d. The system shall execute safety interlocks to have shutdown of the equipments under abnormal conditions. For automatic operation of various events during the production process, required sequence of operation also has to be programmed based on predetermined timings and process parameter conditions in the control system given by process requirements / IREL team.
- e. Control system has to be configured with PLC based controller for which Digital input (DI) & Digital output (DO) are to be interfaced with ELR/ ELCB Contact, Control supply status & Trip status and also Start and Stop command to be wired along with the existing wiring. All the digital data acquired by the controller has to be sent to the SCADA server for on-line display and storage. For the smooth operation of the facility, availability of undistorted data and smooth transit of commands are essential and the same has to be logged in the system.

IV. DETAILED TECHNICAL SPECIFICATION

(A). PROGRAMMABLE LOGIC CONTROLLER

Party shall realize the new control system with following control requirements: -

1. Single PLC shall be used for the total control system.(Present scheme)
2. The PLC cycle time of system should be 200 msec or less.
3. All the existing logics have to be studied by the party and should be developed & tested in the new PLC & SCADA software. Any other minor correction/ suggestion like additional logics from Process Engineer during the execution of work need to be incorporated, implemented and tested. Extra cabling if required from existing panels to be carried out by the party.
4. Control system should be configured to enable safe & smooth operation of the facility in Automatic Mode and Manual Mode.

5. In the Auto Mode of operation, it has to execute a sequence of operations (Inputs like giving command to field elements, acquiring data, getting feedback from field elements, taking corrective actions, activating emergency operation etc.) in a pre-programmed manner.
6. Control system should provide built-in simulation features to check the I/O channels in the maintenance mode.
7. Password protection for authorized persons should be provided for both PLC and SCADA with ADMIN, USER & MAINTENANCE modes etc.
8. CPU should have the provision to expand a minimum 100 % of the existing capacity in future only by adding additional I/Os. Hence party has to consider suitable controller and software's along with the supply.
9. System should be capable to accept input from various types of Transmitters (4-20mA /0-10V, +/-10V), Thermocouple, Current transformers, Limit Switches etc for future expansion.
10. System should provide closed loop control of critical process parameters using built-in PID functional blocks for future requirements.
11. Should have user friendly configuration of the facility to configure I/Os based on the process requirements.

(B). The Control System should have the following features

1. The PLC system shall be battery less, that is, there shall be no battery backed memory.
2. The PLC power supply shall be in-rack type, directly mounted in the rack to provide required internal power supply for the PLC Modules.
3. PLC system shall be compact and shall have small footprint.
4. PLC & I/O Modules shall be of the same family only.
5. PLC CPU should not have any embedded I/O channels.
6. PLC CPU should be capable of handling minimum of 1000 Digital + 250 Analog Channels.
7. PLC CPU module should have the provision for Ethernet TCP/IP RJ45, Modbus, and USB Port connectivity for interfacing with the SCADA /PC.
8. PLC shall have: (a) separate Power Supply module of 24- 48 V DC isolated, of 30 Watts minimum, placed on 1st slot of the rack and (b) CPU separately placed on the second slot of the main rack. CPU Shall be powered by Internal power supply via rack.
9. PLC System should be with a built-in Ethernet backbone, interconnecting devices and provides continuous communication flow to reap IoT benefits.
10. All Modules should be rack mountable type only.
11. High performance with minimum transmission mode as twisted pair at 10/100 Mbit/s, speed across the network.
12. PLC & Programming tool shall have Inbuilt 100% Simulation functionality.
13. Programming tool shall have inbuilt security feature to control / configure and provide access-based control for any modification /changes.
14. Replace or 'Hot-swap' Modules without stopping process.
15. PLC should be rugged for operational temperature (-25°C +70°C), MTBF>500KH.
16. Better insight into operations with built-in Ethernet capability, optimized communications and system features shall be embedded in the new system.
17. Easy device integration architecture fully based on the most popular industrial standards, cyber security and traceability with seamless connectivity and end-to-end native transparency shall be provided with speed at 100 Mbps or better.

18. Embedded Web server for management of remote operation and diagnostics.
19. All Digital Inputs & Digital Output of PLC System must be of 32/64 Nos Channels per module and its multiples only to maintain the spares. All Input type for Digital Input shall be Current sink (logic positive) and for Digital Output type shall be of Solid state Positive logic.
20. All Digital modules should have 3-meter length pre-fabricated cable with 1 connector and 2 free wires on other end of same manufacture available for termination up to the panel TB.
21. All Analog Inputs of PLC system must be of 8 Nos Channels per module. Module shall be selectable for Input signals of Current 4-20 mA, Voltage +/- 10 V, Voltage 0-10 V, Voltage 0-5 V etc.
22. Analog modules should have 3-meter length shielded cord set having 28 ways terminal on one end and other end flying leads wires of same manufacture, available for termination up to the panel TB.
23. There must be at least one spare slot available in the PLC rack for future expansion to add one more module.

Minimum I/O REQUIREMENTS

Primary and Rutil Section	DI	DO	AI
<i>Minimum No. of Channels</i>	224	160	8
<i>No. of Channels & Modules</i>	32/64	32/16	8 x 1

As per site study if the number of channel/ module required is more, the bidder have to consider the channel per modules as indicated above.

(C) The Programming Software should have the following features

1. Installation of all required system software in controller for operation, its communication with I/Os, operator stations & server.
2. PLC software should be common programming, debugging and operating software with latest version compatible with the PLC and I/O modules supplied.
3. Programming tool shall have inbuilt security feature to control / configure and provide access-based control for any modification / changes and shall have Inbuilt 100% Simulation functionality.
4. The system should support the languages specified by IEC 61131-3 for application software with all debug tools and diagnostics with flexibility for easy modifications.
5. Should have software simulation tools for validation of program.
6. Software should be suitable for the offered CPU Series and from same manufacturer with perpetual license in the name of IREL (India) Limited.
7. All the software developed for this application, should be supplied to IREL in installable CD media (3 copies) and this will be the sole property of IREL (India) Limited. Any licensed programming software used in the project must be given to IREL (India) Limited along with the license. If any third party software is required for the functionality like reporting or other, it shall be scope of bidder.

(D) Requirement of new PLC Control Panel

1. Fully wired PLC control panel of Floor Mounting type robust MS angular frame system with Gland plate at Bottom portion. Painting Scheme: Outer finish: PU RAL 7035 (thickness-120 microns), inside: PU glossy white (thickness: 80 microns) after 7 tank process. Panel shall conform to IP 42 or higher. Minimum Size of the panel shall be 1500(W) x 2100 (H) x 800 (D) mm- without base plate or higher as per site requirement.
2. The panel roof is secured with removable eyebolts that screw directly to the enclosure frame to seal out dirt and moisture.
3. The panel and doors shall be made up of 14 SWG or higher, CRCA sheet with anticorrosive treatment with seven tank treatment and shall be of dust and vermin proof construction with the following accessories and facilities.
4. Panel Should consist of Auto / Manual switch, Auto Start / Auto stop push button, Emergency stop push button, Industrial Ethernet Switch, relay boards for all Digital Outputs, Contactors, MCB's and other switches in rack arrangement to accommodate all the I/O's.
5. All switch gears should be of makes Tecnik / Schneider / Siemens / L&T.
6. Panel shall have hooter alarm with acknowledgement / test button.
7. Panel shall have 24 V DC power source with suitable redundancy with Diode Or-ing logic device.
8. All Digital Inputs to be interlinked to new PLC system incorporating necessary relays of 110 V/230 V, AC supply (224 Nos or Higher). All Digital Output commands to be wired and linked to the MCC for Starting and Stopping operation through 24 V DC relays (160 Nos or Higher). Output relays shall be incorporated in the PLC panel and input relays shall be in the separate relay panel / panels with interconnection.
9. All Digital & Analog Inputs/Outputs of the PLC including spare channels should be wired up to Panel Marshaling Terminals with fuse TBs as per the standard.
10. Eight (8) port Ethernet switch have to be provided (make: Dlink)
11. Panel shall have suitable utility sockets, internal lighting and exhaust fan arrangement connected with limit switch linked to the doors.
12. Panel shall have separate earthing arrangement for instrument & electrical systems. Suitable separate copper bars shall be used inside the panel.
13. The control panel, unless specified otherwise shall conform to the relevant and latest revisions of Indian standard and CEA Regulation 2010. Marshaling side & PLC side shall be accessible through separate doors and both should be physically separated.
14. Wiring shall be neatly bunched, adequately supported and properly routed for easy access and maintenance. Wires shall be identified by Cross ferruling + Straight ferruling, Customizable at site at each end. The ferrules shall be of the ring type and of non-deteriorating material. They shall be firmly located on each wire so as to prevent free movement.
15. Panel should be designed with ease of access for of maintenance and should be with proper name plate and nomenclature.
16. Relay panel shall be Floor Mounting type robust MS angular frame system with Gland plate at Bottom portion. Painting Scheme: Outer finish: PU RAL 7035 (thickness-120 microns), inside: PU glossy white (thickness: 80 microns) after 7 tank process. Panel shall conform to IP 42 or higher. Panel shall be of suitable size made up of 14 SWG or higher, CRCA sheet with anticorrosive treatment with seven tank treatment and shall be of dust and vermin proof

construction with required terminal connectors and accessories and facilities. Minimum Size of the panel shall be 1200 (W) x 2100 (H) x 800 (D) mm-without base frame). The gasketed panel roof is secured with removable eyebolts that screw directly to the enclosure frame to seal out dirt and moisture.

17. Non-current carrying metallic components shall be connected to the power earth busbar and all the shields of the data and command cables left floating at the field are connected to the instrumentation earth bus bar in the control room. Hence single point earthing philosophy has to be followed.
18. Power supplies of different levels (24 V DC / 110 V AC / 240 V AC) shall be grouped separately in the terminal block.

(E) Other requirements of the Control system

1. PLC shall have spare slots for inserting the I/O modules for future expansions. This increase in I/O shall not affect CPU functioning and shall not have any major impact on the cycle time. SCADA package supplied by the party should provide a minimum of twice of required tags.
2. PLC Programming tool & SCADA Software should be fully licensed for Development & Runtime version. SCADA Software shall be from same manufactures as of PLC.

(F) SCADA Software Requirements

SCADA software is required for stand-alone application building license with development as well as run-time feature for the PC and the software should have the following features:

1. The SCADA Software should be installed in new PC and should be interfaced to the PLC system through high speed Ethernet. Approximate distance between the PLC and SCADA room is 100 meters. The Software should be developed on the latest version platform considering all the available operations, controls, data logging, alarms & reporting features and incorporate the requirements of operational team of IREL (India) Limited.
2. The SCADA software should be capable for acquiring and logging all the real-time parameters. The software also should be compatible with one of the PLC manufacturer's mentioned above and its subsidiaries to have a common platform and future supports.
3. The SCADA software should have Individual Licensing mechanism with lifetime expiry taken in the name of IREL (India) Limited. The software should support the existing plant hardware models & versions of system and the latest Windows operating system.
4. The Source codes developed should be the property of IREL (India) Limited and should be given with all relevant unlimited licenses.
5. Any interface software's as for meeting the requirements if required, should be considered as licensed version in the name of IREL (India) Limited.
6. SCADA should be a User friendly menu driven software compatible with built in features for Report generation. Report should be logged / imported in MS Excel format with continuous data update and as per the specified interval. The Report stored in Excel file should be accessible by any third-party software all the time during process.
7. User friendly, intuitive menu and tool bar options for navigation to different panels / options shall be provided in the software.

8. Provision for selecting the mode of operation (Auto / Manual) from the main menu shall be provided.
9. Password protection to access only by the authorized persons should be provided for both PLC and SCADA with ADMIN, USER & MAINTENANCE modes.
10. Maintenance mode should be provided in which each I/O can be activated and tested when the Plant is in shutdown or plant maintenance schedule condition.
11. Configuration panel shall provide a way to edit the existing process configuration.
12. Logging of all data with time stamping should be available for post processing in spreadsheet (EXCEL) format as suggested by Process Engineer, IREL (India) Limited.
13. Provision should be there to alert the operator in case of any abnormal behaviour of the facility and initiate emergency shutdown sequence. However, all must be available for the further analysis. Provision shall include WARNING messages, ALARMS and TRIP status with both audio and visual indications.
14. The software should include Report manager, trending, alarm manager and other software tools related to the system requirements.
15. The total number of screens for the SCADA system shall be as per user requirement from IREL (India) Limited. The screens have to be developed in consultation with IREL (India) Limited Engineers.
16. Alarm & trend servers having historical & runtime modes with time stamp-based event logging should be available.
17. Configurable report generation with multiple batch provisions as per the format given by IREL (India) Limited and should be made available in the Excel / CSV format.
18. Soft copy of the PLC logic software including all the communication / MODBUS drivers shall be provided in the CD / USB version.
19. 100% extra tags shall be considered for the SCADA.
20. PLC Programming & SCADA Software with runtime perpetual and development license shall be provided with IREL (India) Limited and shall support the High-end PC system in which the SCADA is installed.

(G) High End PC Requirements

High end PC (Qty - 1No) should be with the following minimum specifications.

1. Makes: Dell / HP / Lenovo (assembled system will not be accepted).
2. Intel Core i7 10th Generation Processor (Minimum 3.60 GHz base frequency, 8 MB Smart Cache) or better.
3. Intel Original/ OEM Motherboard with Intel Q270 Chipset or equivalent/better and DDR IV support.
4. Memory: 2 x 8GB Dual Channel DDR IV SDRAM Memory, 2133 MHz or above (Expandable up to minimum 32 GB) or better.
5. Hard Disk Drive: 2x1TB SATA III, 7200rpm, integrated On-board Hard Disk Controller supporting SATA Interface with RAID 0 & 1 support.
6. Minimum 6 Nos of USB ports.
7. Graphics: Integrated Intel HD Graphics or better with HDMI/DVI
8. Network: Integrated Gigabit Ethernet.
9. DVD Writer: Dual layer super multi R/W drive.
10. Keyboard: Multimedia keyboard with USB interface.

11. Mouse: 2-button optical scroll USB mouse.
12. Form Factor: Tower.
13. Operating System: Windows 10 x professional 64-bit (OEM preloaded) with licenses.
14. Software: MS Office Home and Business edition 2016 OEM preloaded. (not subscription based)
15. Security: System Level Security with disabling of CD and USB.
16. Twenty six inch (26") or more LED Monitor colour with VGA & DVI/HDMI Interface.
17. PC shall be suitable for 24X7 days operation in industrial environment.
18. Party shall supply table top type HMI cabinet for keeping the CPU inside the cabinet and display unit and printer at top of cabinet table. It shall be made of 14 SWG or higher CRCA sheet with anticorrosive treatment with seven tank treatment. Painting Scheme: Outer & Inner finish: PU RAL 7035 (thickness-120 microns). Minimum size of the panel- 700 (W) x 1600 (H) x 600 (D) mm. With Keyboard drawer and wheels at the bottom. Item supplied should be matching with the existing control desk in the control room in all respect.

(H) Specification for Earthing

Two earth pits are to be installed and connected to the PLC system.

1. All installation of earthing shall conform to IS: 3043:1987 with latest amendments. The earth pit should be provided with 50 mm bore G.I 'C' class pipe with ISI marking of 3 m long, 50 X 6 mm G.I Flat of 6.5 meter per pit, 25 X 3 mm G.I flat of 20 meter per earth.
2. A concrete / masonry compartment with concrete cover has to be provided for the earth pit as per the standard practice. The distance between proposed earth pits and PLC panel is approximately 20 meter. The connection of earth pit to panel is to be done by G. I flat.

(I) Specification for Control Cables

The following specified cable has to be supplied.

24 Core x 0.75 Sqmm Multistranded annealed copper conductor, PVC Insulated, Overall shielded, SWA Armoured, PVC outer sheathed, Black/ Blue colour cable. Voltage grade: 1100 volts. ISI marked conforming to IS 1554.

V. TERMS & CONDITIONS

1. The scope of work shall include supply, installation, commissioning and demonstration of performance of the whole system.
2. The party has to execute the project on a turnkey basis.
3. PLC Programming & SCADA Software with runtime perpetual and development license shall be provided to IREL (India) Limited and shall support the High-end PC system in which the SCADA is installed.
4. IREL (India) Ltd., shall not issue any end user certificate / agreement for this purpose (position).
5. Bill of materials provided here is only indicative. Party has to visit the site at IREL (India) Limited, Manavalakurichi for detailed estimation of the work and quote for BOM required for successful completion of the work. Party should supply all

- systems and components to meet the functionality specified in the tender.
6. One-week training to be provided to IREL Personnel on the development tools & PLC programming and regarding operation of the system supplied and installed.
 7. The ladder diagram / source code for PLC system shall be supplied by the vendor to IREL(India) Limited. Any modification in PLC ladder diagram / source code shall be done free of cost by the vendor for one year.
 8. Party shall submit three sets of 'As built drawing' of PLC panel, Relay panel and Junctions Boxes within one week of installation and commissioning.
 9. Party shall submit the hard copy of technical details of PLC and SCADA along with supply.
 10. Party shall note that the prices quoted for items shall include for maintenance tools & tackles and start-up & commissioning spares also.
 11. The party is expected to take up the work as soon as the plant is ready for work (The readiness of the plant and shutdown will be informed to the party in advance) and the work should be completed with minimum downtime.
 12. Party should depute qualified and experienced Engineers / technicians for the work.
 13. It is mandatory to visit the site to know about the site condition and requirement before quoting the tender.
 14. Design Documents: Party shall submit Design Document after detailed engineering within 30 days from the receipt of Work order.

VI. **GUARANTEE**

Party shall provide guarantee for all the deliverables including the entire system commissioned for a period of 12 months from the date of successful erection and commissioning or 18 months from the date of supply, whichever is earlier.

VII. **COMPLETION PERIOD**

Party shall complete all the works as per the work order within 5 months from the date of release of work order.

VIII. **LIQUIDATED DAMAGES**

Delay attributed by the contractor in completion of the work order attracts liquidated damages @ 0.5 % per week or part there of subjects to a maximum of 5 % of the value of the work.

IX. **PAYMENT**

- (i) 70 % of supply cost along with 100 % taxes towards supply shall be made within 30 days of supply and acceptance at our site.
- (ii) Balance 20 % of supply items and 90 % of erection, installation and commissioning charges along with 100 % taxes shall be made within 30 days after the successful completion of the entire scope of works and submission of required documents.
- (iii) Balance 10 % of supply items and installation charges shall be released after completion of warranty period of 1 year from the date of commissioning or against submission of performance bank guarantee of equivalent value valid for the above period.

GST Law mandates Tax Deduction at Source (TDS) vide Section 51 of the CGST/SGST Act 2017, Section 20 of the IGST Act, 2017 and Section 21 of the UTGST Act, 2017.

Please mention IREL GST number (33AAACI2799F1ZL) and HSN/SAC code of goods/services in your bills.

All payments shall be done only through E-payment. Hence successful bidder has to provide Company name, Account number, Name of the bank, nature of account (Savings/ Current/ CC/OD), IFS Code, Branch Code along with invoice.

X. IREL (India) Limited SCOPE OF SUPPLY

1. Free water
2. Free Electricity
3. Supply of 100 meter 2P x 1 sqmm armoured cable
4. Supply of 200 meter 3C x 1.5 sqmm armoured cable
5. 5 KVA UPS with battery and its installation.
6. Air conditioner for control room

HAZARD, RISK AND CONTROL MEASURES IDENTIFIED FOR THE SUPPLY, INSTALLATION AND COMMISSIONING OF PLC/SCADA BASED CONTROL SYSTEM FOR AUTOMATED SEQUENTIAL OPERATION OF MATERIAL HANDLING EQUIPMENT IN GARNET SECTION AT MSP.

Hazard	Control
Switching on the equipment when personnel are at work	Ensure through safety work permit. Providing caution boards
Insulation failure of portable equipments	Use ELCB for the supply
	Ensure the earth pin is used in the switch board and equipment.
Working without power isolation (Use of local isolation)	Ensure through safety work permit
	Use PPE's like rubber gloves
Temporary electrical connections at field (Cables with joint, sockets not in use, absence of earthing, without accessible points)	Use of sockets with earthing provision
	Use of armoured / TRS cables and sockets for temporary electrical connections defined in the tender documents
	Providing ELCB for temporary connections
Working without platform / scaffolding	Issue of class-1 Safety permit after inspection.
	Use of safety Belt
Working while standing on temporary ladder	Ensuring use of PPEs
	Ensuring anchoring of ladder
Welding and Gas cutting operation	Ensure the Welding machine is connected through ELCB. Use of safety shields and gloves
Grinding operation	Visual inspection of condition of grinding wheel
	Use of goggles

TECHNO-COMMERCIAL TERMS FOR TENDERER'S RESPONSE

Sl No	Techno - Commercial Terms	Response
1	Tenderer must carefully study the technical specifications and general terms and conditions before participation of tender. All terms and conditions of NIT and Corrigendum, if any, shall be applicable.	AGREE
2	Bidder agrees to submit Pre-Qualification Criteria document.	AGREE
3	Bidder agrees to provide validity of offer upto 120 days from date of opening of Techno-Commercial Bid.	AGREE with Remarks
4	Earnest Money Deposit(EMD) - Rs.36,438/- Note: Company/Unit registered with MSME/NSIC are exempted from payment of EMD provided they submit valid MSME/NSIC certificate along with techno-commercial bid and to ensure that certificate pertains to the class of item/works for which tender is floated. Govt Undertaking /PSUs are exempted from payment of EMD	AGREE
5	Tender Document Charges(TDC) Note: Company/Unit registered with MSME/NSIC are exempted from payment of TDC provided they submit valid MSME/NSIC certificate along with techno-commercial bid and to ensure that certificate pertains to the class of item/works for which tender is floated. Govt Undertaking/PSUs are exempted from payment of TDC.	AGREE
6	Bidder agrees to carry out the work as per the Special Conditions of Contract mentioned in Annexure IV	AGREE
7	Bidder agrees to upload GSTIN Details (Mention Exempt if you are a Non GSTIN Entity and provide Proof of the same)	AGREE
8	Undertaking : Signed Scanned copy of Undertaking should be uploaded	UPLOAD
9	Upload complete Postal address of the Bidder, Telephone/ Mobile/ Fax No. of Vendor & E-mail id	UPLOAD
10	Declaration of UAM number by MSE bidders is mandatory, failing which such bidders will not be able to enjoy the benefits as per Public Procurement Policy for MSE's order 2012	UPLOAD
11	MSME bidder agrees to register in TReDS	AGREE
12	All the charges must be in the price bid / schedule only. The charges mentioned other than in the price bid, anywhere else can not be considered.	AGREE
13.	Bidder agrees to register in GeM	AGREE
14.	Bidder agrees to submit transaction fee receipt	AGREE
15.	Bidder should upload scanned copy of MSTC transaction fee receipt and bank details with cancelled check to get refund of the transaction fee excluding GST	UPLOAD

ETHICS IN TENDERING & OTHER BUSINESS DEALINGS

Dear Sir,

IREL (India) Limited a Government of India undertaking under the administrative control of Department of Atomic Energy is doing its business as per the rules and regulation of the Public Sector Undertaking and other statutory agencies. The business is done in a ethical, rational & impartial manner with good corporate governance.

In our Endeavour to be more transparent in our dealings and to support our ideology all **Vendors, Customers and Business Partners** are requested not to provide any gift and/or inducement to any of our employees for securing/being granted favour in dealings with our Company. In assurance of your commitment to the aforesaid, it will be highly appreciated if you fill up, sign and abide by the attached undertaking.

Report of any gifts and/or inducements sought by any employee of the company should be immediately reported to any one of the following:

Chairman & MD IREL (India) Limited Plot No. 1207, ECIL Building, Veer Savarkar Marg, Prabhadevi, Mumbai-400028 Ph. 022-24225778 Email: cmd@irel.co.in ;	Chief Vigilance officer IREL (India) Limited Plot No. 1207, ECIL Building, Veer Savarkar Marg, Prabhadevi, Mumbai-400028 Ph. +91 22 2422 0613, +91 22 24221068 Email: cvo@irel.co.in
Or General Manager & Head, MK IREL (India) Limited, Manavalakurichi	

We assure you that complaints if any made by you on the subject will be kept confidential and fair investigation will be conducted and appropriate action will be taken. Similarly, we expect your commitment to the undertaking and its violation will have consequences as per prevailing rule of the Company.

Thanking you,

For IREL (India) Limited,

sd/-
General Manager & Head, MK

UNDERTAKING

Date:

To

M/s. IREL (India) Limited,
MANAVALAKURICHI

I/ We.....am/are a Vendor/Customer of IREL (India) Limited
(now on wards to be referred as Company).

I/We agree and undertake:

- (i) Not to provide any gift and/or inducement to any employee of the Company in connection with securing/being granted favour (s) in my/our dealings with the Company and its field Unit namely MK unit at Tamil Nadu.
- (ii) To immediately report any gift and/or inducement sought by any employee of the company in exchange of the Company and/or its field Units granting favour (s) to me/us in my/our dealings with the Company and/or its field Units.

Signature:.....

Name:.....

Title:.....

Name of the Company & Address (with Seal):.....

PRICE SCHEDULE

Sl. No	Description	UoM	Qty	Rate/ Unit (Rs.) (a)	GST in % (b)	Total Value (a+(a*b/100))
1.	Programmable logic controller system as per the detailed technical specification of tender document. Make: Schneider/ABB/Siemens/ Emerson	Set	1			
2	PLC Programming software with License as per detailed technical specification. SCADA with License as per detailed technical specification of tender document. Make: Schneider/ABB/Siemens/ Emerson	Set	1			
3	Fully wired PLC panel having MS angular frame system with Gland plate at Bottom portion. Minimum Size of the panel shall be 1500 (W) x 2100 (H) x 800 (D) mm- without base plate or higher as per site requirement with panel air circulation, For Digital outputs 160 Channels (64 Ch x 2 Nos + 32 Ch x 1 No modules) – Relay Modules (8 Ch x 21 Nos / 16 Ch x 11 Nos) with Omron/OEN relays, 24 VDC Power supply, Panel Illumination, Fused terminals, Service socket & painting as per detailed technical specification of tender document. All spare channels in each Relay module should be wired with spare terminals for future expansion with necessary ferrules and tags. Analog Input -8Channels (8 Ch x1 Nos. modules) 8 port managed switch -1 No. Ethernet Cat 6 cable in PVC conduit. Panel Make: Rittal/ Eldon/ Keltron/BCH	Set	1			
4	Fully wired Relay panel having MS angular frame system with Gland plate at Bottom portion. Panel shall be of suitable size made up of 14 SWG or higher, CRCA sheet Minimum Size of the panel shall be 1200 (W) x 2100 (H) x 800 (D) mm- without base frame) with panel air circulation, relay boards for	Set	1			

	Digital inputs 224 Channels (64 Ch x 3 Nos. + 32 Ch x 1 No modules) – Relay Modules (8 Ch x 29 Nos. / 16 Ch x 15 Nos.) with Omron/OEN relays, Panel Illumination, Service socket, Fused terminals and painting as per technical specification of tender document. All spare channels in each Relay module should be wired with spare terminals for future expansion with necessary ferrules and tags. Panel Make: Rittal/ Eldon/ Keltron/BCH					
5	Supply of Auto /Manual switch, Prestart warning alarm hooter 3 Nos. at Garnet section as per detailed technical specification.	Set	1			
6	Instrumentation copper conductor cable 24 core, 0.75 Sq.mm armoured with overall Shielded, ISI marked conforming to IS 1554 - as per detailed technical specification. Make: Lapp/ Polycab/ Helucable/KEI	Meter	2000			
7	Supply of material required for providing standard pipe earth system with 3 m long, 50 mm dia “C” class G.I pipe with ISI mark, conforming to IS: 3043 with latest amendments, 50 X 6 mm GI Flat of 6.5 meter and 25 mm X 6 mm X 3 mm GI Flat of length of 20 meter per pit. A concrete / masonry compartment with concrete cover has to be provided for the earth pit as per the standard practice. The distance between proposed earth pits and PLC panel is approximately 20 meter. The connection of earth pit to panel is to be done by GI flat as per detailed technical specification.	Set	2			
8	High End personal computer with HMI cabinet as per detailed technical specification. Make :HP/Dell/Lenovo	Set	1			
9	Charges for Installation and commissioning. (Erection and installation of new PLC panel , Relay panels and computer cabinet, Laying and termination of new control cables (24 core, 0.75 Sq.mm) at MCC side, PLC panel side and Relay panel side, laying and termination of the Ethernet cables through PVC conduit,	LS	1			

	Laying and termination of 100 mtr 2 pair 1 sq mm armoured cable from instrument to PLC panel, Erection and commissioning of earthing system and connection with PLC panel, fixing of hooters and laying and termination of 3 core, 1.5 Sq. mm armoured copper conductor cable of 200 meters for hooters, PLC programming, SCADA development etc. All cables should be laid through existing cable trays/ Existing cable trenches/ New cable trays (New cable trays have to be supplied and installed by the successful bidder wherever required). All cables to be tagged with aluminium cable tags at both ends. UPS to PLC panel connection with required cables have to be erected.					
	Total					

- a) **Basic price per unit**
 - b) **GST in %**
- Formula: $(a+(a*b/100))$**

Special Note: Wherever % is mentioned value to be entered in % Only

IREL (India) Limited BANK DETAILS

Name of Bank	State Bank of India, Manavalakurichi
Account Type	Current Account
Account Number	57052533526
IFS Code	SBIN0070333
MICR Code	629009009

Details of payment to be uploaded as attachment during tender submission and the same shall be e-mailed to : purchase-mk@irel.co.in

Email should contain the following details

- 1) Name of the Company
- 2) Your E-mail ID and Contact Details including full Postal Address
- 3) EMD & TDC Amount
- 4) Transaction ID with details of bank and branch

EMD DECLARATION

I/We have furnished a sum of ₹36,438/- (Rupees thirty six thousand four hundred and thirty eight only) towards EMD vide NEFT / RTGS No.....dated

Place:

tenderer:

Address:

Signature of

Full

CONTRACTOR ENROLMENT/ REGISTRATION FORM

- 1. NAME :
- 2. ADDRESS :
- 3. E-MAIL/ MOBILE :
- 4. WORK ORDER DETAILS :

Sl. No	Work Order No. & Date	Work Order Validity		Nature of Work	Dept.	EIC/ OIC Name
		From	To			

- 5. P.F. CODE NO :
- 6. INSURANCE DETAILS :

ESI No.	Name of Insurance Company	Policy No.	Valid	Type of Policy	No. of persons covered

- 7. LABOUR LICENSE DETAILS:

Labour License No.	Address of Licensing Office	License Issuance Authority	Date of Expiry	Maximum No. of Labourers as per License

SIGNATURE OF CONTRACTOR

PROFORMA FOR BANK GUARANTEE FOR EARNEST MONEY DEPOSIT

(To be issued by approved Scheduled Banks)

In accordance with Notice Inviting Tender (NIT) No. _____ Dated _____ for the work of _____ (herein after referred to as "the said Works") for Rs. _____ (Rupees _____ only), under Manavalakurichi Unit of M/s IREL (India) Limited, a company incorporated under Indian Companies Act, having its registered office at Plot No.1207, ECIL building, Veer Savarkar Marg, Prabhadevi, Mumbai – 400028, India (herein after referred to as IREL), M/s _____ Address _____ [Herein after referred to as Contractor (s)] wish /wishes to participate in the said tender and a Bank Guarantee for the sum of Rs. _____ (in words) valid for a period of _____ days (in words) is required to be submitted by the Bidder towards the Bid Security.

We the _____ Bank (hereinafter called the said Bank) do hereby undertake to pay to IREL, the sum of Rs. _____ (Rupees _____ only) by reason of the said tenderer's failure to enter into an agreement of contract on intimation of acceptance of his tender and/or to commence the contract works and/or failure to deposit the security deposit within the stipulated period as per the terms and conditions relating to and/or governing the contract and/or specified in the Notice Inviting Tender (NIT). We also agree that any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. We also agree that notwithstanding any dispute or difference or any litigation in respect of or arising from the said contract and/or the acceptance of the tender of the tenderer afore stated by IREL including the question as to the tenability of the claim of the IREL for forfeiting the Earnest Money being the Bank Guarantee herein, we shall forthwith pay the said amount to IREL on demand being made as aforesaid.

We _____ Bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for entering into an Agreement of contract and that it shall continue to be enforceable till all the dues of the IREL under the terms and conditions of the NIT for the work have been fully paid and its claims satisfied or discharged or till IREL certifies, that the terms and conditions of the NIT have been fully and properly carried out by the said tenderer and accordingly discharges the guarantee.

We _____ Bank further agree with the IREL that the IREL 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 NIT and/or terms and conditions governing the contract or to extend the time of validity of the offer from the said tenderer from time to time or to postpone for any time or from time to time any of the powers exercisable by the IREL against the said tenderer and to forbear or enforce any of the terms and conditions of the NIT and we shall not be relieved from our liability hereunder by reason of any such variation, or extension being granted to the said tenderer or for any forbearance, act or omission on the part of the IREL or any indulgence by the IREL to the said tenderer or by any such matter or thing whatsoever which under the law relating to surety/guarantee would but for this provision have effect of so relieving us.

We _____ Bank do hereby further agree that any change in the Constitution of the said tenderer or the Bank will not affect the validity of this guarantee.

We _____ Bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of the IREL in writing.

Dated the _____ day of _____ 2022

Bank
(Signature with name in Block letters with designation,
Attorney as per power of Attorney No. _____ dt. _____)

Bank's Common seal

PROFORMA FOR BANK GUARANTEE FOR SECURITY DEPOSIT

WHEREAS on or about the _____ day of _____ M/s _____ (Tenderer's name & address), having its registered office situated at _____ (Postal address) (herein after referred to as 'The Tenderer') entered into a contract bearing reference no. _____ dtd. _____ with _____ (MK unit/Chavara unit/OSCOM unit/ RED unit/Corporate Office) of M/s IREL (India) Limited, a company incorporated under Indian Companies Act having its registered office at Plot No.1207, ECIL building, Veer Savarkar Marg, Prabhadevi, Mumbai – 400 028, India (herein after referred to as IREL), for _____ (details of order) (herein after referred to as 'The Contract'). AND WHEREAS under the terms and conditions of the contract the tenderer is required to keep with IREL a security deposit of Rs. _____ (Rupees _____ only) or submit a Bank Guarantee in lieu of cash deposit for the fulfillment of the terms and conditions of the contract, and whereas the supplier has chosen to submit a Bank Guarantee.

We _____ Bank do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on a demand from IREL stating that the amount claimed is due by way of loss or damage caused to or that would be caused to or suffered by IREL by reason of breach of any of the terms and conditions of 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. The payment will be released within three working days from the date of demand for payment.

We undertake to pay to IREL any money so demanded notwithstanding any dispute or disputes raised by the tenderer in any suit or proceeding pending before any court or tribunal relating thereto, our liability under these present being absolute and unequivocal.

The payment so made by us under this guarantees shall be valid discharge of our liability for payment thereunder and the tenderer shall have no claim against us for making such payment.

We _____ Bank further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of IREL under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till IREL certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said tenderer and accordingly discharges this Guarantee. Our Guarantee shall remain in force until _____ and unless a demand or claim under this guarantee is made on us in writing within three months from the expiry of the Guarantee period, we shall be discharged from all liability under this Guarantee thereafter.

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

This guarantee will not be discharged due to the change in the constitution of the Bank or the Consultant.

We _____ Bank lastly undertakes not to revoke this guarantee during its currency except with the previous consent of IREL in writing.

Dated the _____ day of _____ 2022

_____ Bank

(Signature with name in Block letters with designation,
Attorney as per power of Attorney No. _____ dt. _____)

Bank's Common seal