

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
ISRO PROPULSION COMPLEX (IPRC)
MAHENDRAGIRI**

Tender for Supply, Installation and commissioning of TCT control systems

Bids to be submitted online

Tender No.: IPRC/PURGP3/IP202400014901 dated 05-04-2024

A. Tender Details

Tender No : **IPRC/PURGP3/IP202400014901**

Tender Date : **05-04-2024**

Tender Classification: **GOODS**

Purchase Entity : **PURGP3**

Centre : **ISRO PROPULSION COMPLEX (IPRC)**

Supply, Installation and commissioning of TCT control systems

IMPORTANT NOTE: This is a Two-Part tender i.e. Techno-Commercial Part Containing C.1 (Technical Bid), Supporting Documents required from Vendor, C.2 (Commercial Terms / Bid) and C3. Price Bid . Please note that all technical commercial details without price shall be furnished in the Documents Solicited from Vendor & in Commercial Compliance C.2 (Commercial Terms / Bid) Fields while price shall be indicated only in the C3. Price Bid & in fields which are marked as Price Bid Related. PRICE SHALL BE MENTIONED ONLY IN THE PRICE BID FORM & IN THE PRICE BID RELATED FIELD. [ENSURE NOT TO MENTION ANY PRICE ANYWHERE ELSE, OTHERWISE THE QUOTE WILL BE INVALID. PLEASE NOTE BEFORE/WHILE SUBMITTING YOUR OFFERS. Note and Confirm.

For any clarifications regarding this tender, your query should be sent to psogroup3@iprc.gov.in Ph: 04637-281554 clearly mentioning the tender number, within the time period specified in the tender.

PLEASE NOTE THE FOLLOWING WHILE SUBMITTING YOUR OFFER:

- 1). Last minute clarification on tenders will not be entertained.
- 2). This is an E Tender. Hence Postal/Fax/Email tenders will not be accepted. Offer shall be submitted through our E-procurement portal.
- 3). Before submission of bid, the bidder should study all the terms and conditions mentioned in the tender document along with the files attached with the tender.
- 4). MSE Purchase preference is will be given to MSEs who is registered under Udyam Registration and on production of Udyam Registration Certificate. MSE Purchase preference will not be applicable to Retail and Wholesale traders.
- 5). Read the clauses regarding Make In India-Purchase Preference Policy, which is mentioned in the Tender Documents. Give the necessary compliance in the relevant field in the Vendor Specified Terms.
- 6).Foreign vendors/Non-Local Supplier are not permitted to quote.

- 7). Only Class-I and Class-II Local suppliers as per Make in India Policy are eligible to participate in the bid.
- 8). Quotations directly from foreign OEM/ or from agents quoting on behalf of foreign OEMs are not allowed to participate in this tender. Quotation submitted shall be in Indian Rupees Only.
- 9). The percentage of local content should be specifically mentioned in your offer as per the Make In India Local Content declaration format, as provided in the tender document, without which your offer will be summarily rejected.
- 10). Preference will be given to Class-I Local Supplier. No Purchase preference will be applicable for Class-II Local Supplier.

A.1 Tender Schedule

Bid Submission Start Date :	05-04-2024 16:30
Bid Clarification Due Date :	26-04-2024 14:02
Bid Submission Due Date :	21-05-2024 14:00
Bid Opening Date :	21-05-2024 14:01
Price Bid Opening Date :	28-05-2024 14:00

B. Tender Attachments

Technical Write-up/Drawings

Document : control system

Instructions To Vendors

2. Important Notice:-Tenders (only Technical Bid) will be opened on the date [Bid Opening Date] specified above. The date of opening of the Price Bid mentioned is indicative only. Price bids of Qualified Vendors will be opened after completing the technical evaluation process. Bidding details can be seen by the participated vendors by logging into ISRO e-procurement portal.

3. General Instructions

1. Last minute clarification on tenders will not be entertained.
2. This is an E Tender. Hence Postal/Fax/Email tenders will not be accepted.
3. If a vendor is not able to submit bid against this tender due to any reason, such vendor is requested to post their REGRET message in the e-procurement portal with clear reasons or email to psogroup3@iprc.gov.in. Non submission of bids without regrets will be viewed seriously.
4. IPRC reserves the right to split the tendered quantity in part or whole on its sole discretion without assigning any reason.
5. IPRC has the right to cancel the tender without assigning any reason etc.
6. If any vendor submits forged / false documents along with the tender, offer of such vendors will be summarily rejected and such bidders will be blacklisted for all future tenders.
7. Option Clause:-The purchaser reserves the right to increase/decrease the ordered quantity by up to 25-30 percent at any time, till final delivery date (or the extended delivery date of the contract), by giving reasonable notice even though the quantity ordered initially has been supplied in full before the last date of the delivery period (or the extended delivery period)
8. In cases where the manufacturer has submitted the bid, the bids of its authorised dealer will not be considered.
9. Conflict of Interest among Bidders/ Agents:-

The bidder/s who found to have a conflict of interest shall be disqualified from the tendering process. A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:

- (a). they have controlling partner (s) in common; or
- (b). they receive or have received any direct or indirect subsidy/ financial stake from any of them; or
- (c). they have the same legal representative/agent for purposes of this bid; or
- (d). they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder; or
- (e). Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly/ Assemblies from one bidding manufacturer in more than one bid.
- (f). In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorise only one agent/dealer. There can be only one bid from the following:
 - (i). The principal manufacturer directly or through one Indian agent on his behalf; and
 - (ii). Indian/foreign agent on behalf of only one principal.
- (g). In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/ management units in same/ similar line of business.

4. Concessional GST :-

1. We are eligible for GST @5% as per the following notifications:-

- (a). IGST:- Ministry of Finance, Dept. of Revenue Notification No. 25/2018 Integrated Tax (Rate) Schedule-I; SI.No.243B dated 31.12.2018 (Amendment to Notification No. 7/2018 - Integrated Tax (Rate) dated 25.01.2018 and Notification No. 1/2017 - Integrated Tax (Rate) dated 28.06.2017
- (b). CGST:-Ministry of Finance, Dept. of Revenue Notification No. 24/2018 Central Tax (Rate) Schedule-I; SI. No. 243B dated 31.12.2018 (Amendment to Notification No. 6/2018 - Central Tax (Rate) dated 25.01.2018 and Notification No. 1/2017 - Central Tax (Rate) dated 28.06.2017
- (c). SGST:-Government of TamilNadu, Commercial Taxes & Registration (B1) Department G.O(Ms) No.18 Dtd. 25/01/2018 & Schedule-I; SI. No. 243 B as per the amendment dated 31.12.2018 (Amendment G.O(Ms)No.170 dated 31/12/2018).

Necessary Concessional GST certificate will be provided along with the P.O.

Please note this and submit your quote accordingly.

5. [GENERAL TERMS AND CONDITIONS]

1. (I) GST where legally leviable and intended to be claimed should be distinctly shown separately in the tender.

2. (II) a) Facility of after sales service to be confirmed with details. b) Permanent Account Number (PAN) allotted by Income-Tax authorities shall be furnished with documentary proof. Otherwise, documentary proof for having applied for PAN should be provided. Also PAN should be in the name of Company/Firm, if quoted by the Company/Firm and in the name of Individual, if quoted by individual. c) GST No. d) PAN No. e) Local office in Tirunelveli / Nagercoil is preferable. Note: (b) to (e) are applicable for Indian Companies only.

3. (III) Our standard delivery term is FOR, IPRC. In case any vendor offers delivery term of Ex-works, Packing and Forwarding charges if any should be indicated separately in Your quotation/E-procurement Price Bid. In case of imported items (stores), Ex-Works/FOB/FCA prices should be indicated.

4. (IV) PAYMENT: Our standard payment term is 100% within 30 days after receipt and acceptance of the items at our site (after installation and commissioning in cases where installation and commissioning is required)-for Indigenous supply.

5. (V) Guarantee / Warranty period as applicable shall be indicated, along with the quote. Guarantee/Warranty shall commence from the date of installation and acceptance of the complete equipment supplied under the contract/purchase order.

6. (VI) LIQUIDATED DAMAGES: Delivery is the essence of the contract. Items shall be delivered within stipulated period. If delivery is delayed beyond the stipulated delivery period mentioned in the purchase order or any extension thereof, an amount equal to 0.5% per week shall be recovered, subject to a maximum of 10% of the order value shall be deducted from your bills due. For Staggered supply, maximum of 10% of value respective staggered supply lot.

7. (VII) PERFORMANCE BANK GUARANTEE : (If Warranty is applicable/sought in our Tender enquiry) The Supplier shall guarantee the successful and satisfactory performance/commissioning of equipment/machinery under the conditions specified in the Purchase Order. As a performance security, the SUPPLIER shall furnish a performance bank guarantee (format enclosed) from Nationalized Bank/Scheduled Bank for an amount equal to the sum of 3% of the order value ensuring the due performance of equipment/machinery in accordance with all the specifications and terms specified in the Purchase Order herein valid for the warranty period. On due performance, the performance bank guarantee shall be automatically cancelled and returned to the Supplier within 30 days after expiry of the Warranty period. The performance bank guarantee shall have claim period of six months.

8. (VIII) SECURITY DEPOSIT : Wherever the offer price is Rs. 5.00 Lakhs or above, the successful tenderer should submit Security Deposit @ 3% of the order value by way of Bank Guarantee / FD Receipt/DD duly endorsed in favour of Accounts Officer, IPRC or by way of Bank Guarantee (in the prescribed format) within 20 days after receipt of order and valid up to the successful execution of the order. In case if Security Deposit is submitted and the contractor fails to execute the order, then the

security deposit will be forfeited.

9. Note: SD, LD and PBG clauses are mandatory [which will be indicated in Tenders] and offers of the vendors who have not agreed for the above conditions will be excluded from the procurement process. Micro and Small Vendors are not exempted from the submission of Security Deposit. Only Govt Departments/PSUs/PSEs can submit Indemnity Bond instead of Bank Guarantee towards SD/PBG.

10. (IX) IPRC reserves the right to accept or reject any quotation in full or part thereof by recording the reasons.

11. (X) IPRC shall not be responsible for failure of vendors in submitting bids online caused due to technical reasons at vendor end such as network or power failures, computer failure, internet-browser, mistakes / errors in filling the bids on line by vendor etc.

12. (XI) Last minute request for the extension of the due date w.r.t. any technical issue at Vendors/Suppliers side will not be considered. You may submit your quotation online well in advance instead of waiting till the last date to ensure that Internet problem and network condition does not cause problem.

13. (XII) Offers sent through post, telegram, fax, e-mail, courier will not be considered. Partially completed / incomplete tenders shall not be considered.

14. (XIII) Only authorized dealers/agents or their accredited representatives for original manufacturers have to submit the quotation with documentary evidence.

15. (XIV) The goods or material offered should be strictly as per our specifications. Change(s) in specifications, if any, should be clearly indicated by the supplier in his quotation. The supplier should also indicate make/type No. of the materials or equipment offered. Vague terms such as Best quality, Best Indian, Best Indigenous and Imported make should not be used.

16. (XV) Please upload the Technical Details / Catalogue / Data Sheets (wherever applicable) along with your offer.

17. (XVI) The offer should be valid for a period of minimum 90 days from the date of opening of Tender and 180 Days for PT Two Part (120 Days for Technical Bid and 60 Days for Price Bid from the date of opening).

18. (XVII) If any bidder submits forged / false document along with the tender, offer of such vendors will be summarily rejected and such bidders will be blacklisted for all future tenders.

19. (XVIII) Wherever the tenderer is asked to submit sample for evaluation of tenders, the same shall be submitted along with your quote.

20. (XIX) PO will be placed on technically and commercially suitable lowest offer basis and IPRC reserves the right to split the order on L1 basis. The purchaser shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portions of the quantity offered and the tenderer shall supply the same at the rates quoted.

21. (XX) Purchase preference to Micro and Small Enterprises (MSEs): Purchase preference will be given to MSEs as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. MSE Purchase preference is will be given to MSEs who is registered under Udyam Registration and on production of Udyam Registration Certificate. MSE Purchase preference will not be applicable to Retail and Wholesale traders. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence along with UDYAM REGISTRATION in this regard shall be uploaded along with the bid in respect of the offered product or service. If L-1 is not an MSE and MSE Seller (s) has/have quoted price within L-1 plus 15% (Selected by Buyer) of margin of purchase preference/price band defined in relevant policy, such Seller shall be given opportunity to match L-1 price and contract will be awarded for 25% (selected by Buyer) percentage of total QUANTITY.

22. (XXI) Purchase / Price preference to Make-in-India Products: Preference shall be given to Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. The minimum local content to qualify as a Class 1 local supplier is denoted in the bid document 50%. If the bidder wants to avail the Purchase preference, the bidder must upload a certificate from in the format provided along with the tender, mentioning the percentage of the local content and the details of locations at which the local value addition is make along with their bid, failing which no purchase preference shall be granted. In case the bid value is more than Rs. 10 Crore, the declaration relating to percentage of local content shall be certified by the statutory auditor or cost auditor, if the bidder is a company and by a practicing cost accountant or chartered accountant for OEMs other than companies as per the Public Procurement (preference to Make-in-India) order 2017 dated 04.06.2020 and amendments thereof. In case Buyer has selected Purchase preference to Micro and Small Enterprises clause in the bid, the same will get precedence over this clause.

23. (XXII) ISRO PROPULSION COMPLEX (IPRC) is exempted from payment of Customs Duty under Notification No. 50/2017-Customs dated 30.06.2017 and as amended by Notification No.5/18 Customs dt:25/1/18. For imported items/components in the quoted product [as eligible as per Make In India policy of Govt. Of India], IPRC will provide Customs Duty Partial Exemption Certificate for availing Concessional CD and IGST for the import items/components in the quoted products.

24. (XXIII) Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with Competent Authority as specified in Office Memorandum no.F.No.6/18/2019-PPD, Ministry of Finance, Department of Expenditure, Public Procurement Division dated 23rd July 2020. All the conditions mentioned in the above OM is applicable for this tender

25. (XXIV) The bids shall be in INR only.

26. (XXV) Wherever the tenderer is asked to submit sample for evaluation of tenders, the same shall be submitted along with your quote.

6. Form No. 20

1. [Instructions to Tenderers]

2. a) Your offer should be valid for 90 days from the date of opening of the tender. b) Prices are required to be quoted according to the units indicated in the annexed tender form. When quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished.

3. Preference will be given to those tenders offering supplies from ready stocks and on the basis of FOR destination/delivery at site.

4. (a) All available technical literature, catalogues and other data in support of the specifications and details of the items should be furnished along with the offer. (b) Samples, if called for, should be submitted free of all charges by the tenderer and the Purchaser shall not be responsible for any loss or damage thereof due to any reason whatsoever. In the event of nonacceptance of tender, the tenderer will have to remove the samples at his own expense.

(c) Approximate net and gross weight of the items offered shall be indicated in your offer. If dimensional details are available the same should also be indicated in your offer.

(d) Specifications: Stores offered should strictly confirm to our specifications. Deviations, if any, should be clearly indicated by the tenderer in his quotation. The tenderer should also indicate the Make/Type number of the stores offered and provide catalogues, technical literature and samples, wherever necessary, along with the quotations. Test Certificates, wherever necessary, should be forwarded along with supplies. Wherever options have been called for in our specifications, the tenderer should address all such options. Wherever specifically mentioned by us, the tenderer could suggest changes to specifications with appropriate response for the same.

5. The purchaser shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portions of the quantity offered and the

tenderers shall supply the same at the rates quoted.

6. The tenderer should supply along with his tender, the name of his bankers as well as the latest Income-Tax clearance certificate duly countersigned by the Income-Tax Officer of the Circle concerned under the seal of his office, if required by the Purchaser.

7. The purchaser reserves the right to increase/decrease the ordered quantity by up to 25-30 percent at any time, till final delivery date (or the extended delivery date of the contract), by giving reasonable notice even though the quantity ordered initially has been supplied in full before the last date of the delivery period (or the extended delivery period).

8. The authority of the person signing the tender, if called for, should be produced.

9. [Terms and Conditions of Tender]

10. DEFINITIONS:- (a) The term Purchaser shall mean the President of India or his successors or assigns.

11. (b) The term Contractor shall mean, the person, firm or company with whom or with which the order for the supply of Stores is placed and shall be deemed to include the Contractors successors, representative, heirs, executors and administrators unless excluded by the Contract.

12. (c)The term Stores shall mean what the Contractor agrees to supply under the Contract as specified in the Purchase Order including erection of plants & machinery and subsequent testing, should such a condition is included in the Purchase Order.

13. (d)The term Purchase Order shall mean the communication signed on behalf of the Purchaser by an Officer duly authorised intimating the acceptance on behalf of the Purchaser on the terms and conditions mentioned or referred to in the said communication accepting the tender or offer of the Contractor for supply of stores or plant, machinery or equipment or part thereof.

14. PRICES: Tender offering firm prices will be preferred. Where a price variation clause is insisted upon by a tenderer, quotation with a reasonable ceiling should be submitted. Such offers should invariably be supported by the base price taken into account at the time of tendering and also the formula for any such variation/s.

15. SECURITY DEPOSIT: Wherever, the Purchase Order value is Rs. 5.00 Lakhs or more, on acceptance of the tender, the Contractor shall, at the option of the Purchaser and within the period specified by him, deposit with him, in cash or in any other form as the Purchaser may determine, security deposit not exceeding three percent of the value of the Contract as the Purchaser shall specify [Please note the exact percentage of Security deposit that will be applicable to the tender will be

mentioned in the C.2 Commercial Terms / Bid of the Bid document]. If the Contractor is called upon by the Purchaser to deposit Security and the Contractor fails to provide the security within the period specified, such failure shall constitute a breach of the Contract, and the Purchaser shall be entitled to make other arrangements for the re-purchase of the stores Contracted at the risk of the Contractor in terms of Sub-Clause (ii) and (iii) of clause regarding Delivery. (b) hereof and/or to recover from the Contractor, damages arising from such cancellation.

16. GUARANTEE & REPLACEMENT: (a) The Contractor shall guarantee that the stores supplied shall comply fully with the specifications laid down, for material, workmanship and performance. (b) For a period of twelve months after the acceptance of the stores, if any defects are discovered therein or any defects therein found to have developed under proper use, arising from faulty stores design or workmanship, the Contractor shall remedy such defects at his own cost provided he is called upon to do so within a period of 14 months from the date of acceptance thereof by the purchaser who shall state in writing in what respect the stores or any part thereof are faulty. (c) If, in the opinion of the purchaser, it becomes necessary to replace or renew any defective stores such replacement or renewal shall be made by the Contractor free of all costs to the purchaser, provided the notice informing the Contractor of the defect is given by the purchaser in this regard within the said period of 14 months from the date of acceptance thereof. (d) Should the Contractor fail to rectify the defects, the purchaser shall have the right to reject or repair or replace at the cost of the Contractor the whole or any portion of the defective stores. (e) The decision of the Purchaser notwithstanding any prior approval or acceptance or inspection thereof on behalf of the Purchaser, as to whether or not the Stores supplied by the Contractor are defective or any defect has developed within the said period of 12 months or any other period or as to whether the nature of defects requires renewal or replacement, shall be final, conclusive and binding on the Contractor. (f) To fulfill guarantee conditions outlined in (a) to (e) above, the Contractor shall, at the option of the Purchaser, furnish a Bank Guarantee (as prescribed by the Purchaser)

17. PACKING FORWARDING & INSURANCE: The Contractor will be held responsible for the stores being sufficiently and properly packed for transport by rail, road, sea or air to withstand transit hazards and ensure safe arrival at the destination. The packing and marking of packages shall be done by and at the expense of the Contractor. The purchaser will not pay separately for transit insurance, all risks in transit being exclusively of the Contractor and the Purchaser shall pay only for such stores as are actually received in good condition in accordance with the Contract.

18. DESPATCH: The Contractor is responsible for obtaining a clear receipt from the Transport Authorities specifying the goods despatched. The consignment should be despatched with clear Railway Receipt/Lorry Receipt. If sent in any other mode, it shall be at the risk of the Contractor. Purchaser will take no responsibility for short deliveries or wrong supply of goods when the same are booked on 'said to contain' basis. Purchaser shall pay for only such stores as are actually received by them in accordance with the Contract.

19. TEST CERTIFICATE: Wherever required, test certificates should be sent along with the despatch documents.

20. ACCEPTANCE OF STORES: (a) The stores shall be tendered by the Contractor for inspection at such places as may be specified by the purchaser at the Contractor's own risk, expense and cost. (b) It is expressly agreed that the acceptance of the stores Contracted for, is subject to final approval by the purchaser, whose decision shall be final. (c) If, in the opinion of the purchaser, all or any of the stores do not meet the performance or quality requirements specified in the Purchase Order, they may be either rejected or accepted at a price to be fixed by the purchaser and his decision as to rejection and the prices to be fixed shall be final and binding on the Contractor. (d) If the whole or any part of the stores supplied are rejected in accordance with Clause No. (c) above, the purchaser shall be at liberty, with or without notice to the Contractor, to purchase in the open market at the expense of the Contractor stores meeting the necessary performance and quality Contracted for in place of those rejected, provided that either the purchase, or the agreement to purchase, from another supplier is made within six months from the date of rejection of the stores as aforesaid.

21. REJECTED STORES: Rejected stores will remain at destination at the Contractor's risk and responsibility. If instructions for their disposal are not received from the Contractor within a period of 14 days from the date of receipt of the advice of rejection, the purchaser or his representative has, at his discretion, the right to scrap or sell or consign the rejected stores to Contractor's address at the Contractor's entire risk and expense, freight being payable by the Contractor at actuals.

22. DELIVERY:

(a) The time for and the date of delivery of the stores stipulated in the Purchase Order shall be deemed to be the essence of the Contract and delivery must be completed on or before the specified dates.

(b) Should the Contractor fail to deliver the stores or any consignment thereof within the period prescribed for such delivery, the purchaser shall be entitled at his option either.

(i) to recover from the Contractor as agreed liquidated damages and not by way of penalty, a sum of 0.5% per week of the price of any stores which the Contractor has failed to deliver as aforesaid or during which the delivery of such store may be in arrears subject to a minimum of 10%, or

(ii) to purchase from elsewhere, without notice to the Contractor on the account and at the risk of the Contractor, the stores not delivered or others of a similar description (where others exactly complying with the particulars, are not, in the opinion of the purchaser, readily procurable, such opinion being final) without cancelling the Contract in respect of

the consignment (s) not yet due for delivery, or

(iii) to cancel the Contract or a portion thereof and if so desired to purchase or authorise the purchase of stores not so delivered or others of a similar description (where others exactly if complying with the particulars are not, in the opinion of the purchaser, readily procurable, such opinion final) at the risk and cost of the Contractor.

In the event of action being taken under sub-clause (ii) & (iii) of above, the Contractor shall be liable for any loss which the purchaser may sustain on that account, provided that the re-purchase or if there is

an agreement to repurchase then such agreement is made within six months from the date of such failure. But the Contractor shall not be entitled to any gain on such re-purchase made against default. The manner and method of such re-purchase shall be at the discretion of the purchaser, whose decision shall be final. It shall not be necessary for the purchaser to serve a notice of such re-purchase on the defaulting Contractor.

This right shall be without prejudice to the right of the purchaser to recover damages for breach of Contract by the Contractor.

23. EXTENSION OF TIME:As soon as it is apparent that the Contract dates cannot be adhered to, an application shall be sent by the Contractor to the purchaser. If failure, on the part of the Contractor, to deliver the stores in proper time shall have arisen from any cause which the purchaser may admit as reasonable ground for an extension of the time

(and his decision shall be final) he may allow such additional time as he considers it to be justified by circumstances, of the case without prejudice to the purchaser's right to recover liquidated damages under clause mentioned in the heading DELIVERY.

24. ERECTION OF PLANT & MACHINERY:

Wherever erection of a plant or machinery is the responsibility of the Contractor as per the terms of the Contract and in case the Contractor fails to carry out the erection as and when called upon to do so within the period specified by the purchaser, the purchaser shall have the right to get the erection done through any source of his choice. In such an event, the Contractor shall be liable to bear any additional expenditure that the purchaser is liable to incur towards erection. The Contractor shall, however, not be entitled to any gain due to such an action by the purchaser.

25. PAYMENT: Contractor's bill will be passed for payment only after the stores have been received, inspected and accepted by the Purchaser.

MODE OF PAYMENT: Normally payment will be made for the accepted stores within 30 days from the date of receipt of the materials.

26. RECOVERY OF SUM DUE:

Whenever any claim for the payment of, whether liquidated or not, money arising out of or under this Contract against the Contractor, the purchaser shall be entitled to recover such sum by appropriating in part or whole, the security deposited by the Contractor, if a security is taken against the Contract. In the event of the security being insufficient or if no security has been taken from the Contractor, then the balance or the total sum recoverable as the case may be, shall be deducted from any sum then due or which at any time thereafter may become due to the Contractor under this or any other Contract with the purchaser. Should this sum be not sufficient to cover the full amount recoverable, the Contractor shall pay to the purchaser on demand the remaining balance due. Similarly, if the purchaser has or makes any claim, whether liquidated or not, against the Contractor under any other Contract with the purchaser, the payment of all moneys payable under the Contract to the Contractor including the security deposit shall be withheld till such claims of the purchaser are finally adjudicated upon and paid

by the Contractor.

27. INDEMNITY:

The Contractor shall warrant and be deemed to have warranted that all stores supplied against this Contract are free and clean of infringement of any Patent, Copyright or Trademark, and shall at all times indemnify the purchaser against all claims which may be made in respect of the stores for infringement of any right protected by Patent Registration of design or Trade mark and shall take all risk of accidents or damage which may cause a failure of the supply from whatever cause arising and the entire responsibility for sufficiency of all means used by him for the fulfillment of the contract.

28. ARBITRATION:- In the event of any dispute or difference arising under these terms & conditions or any condition contained in the Purchase Order or in connection with this Contract. (except as to any matter the decision of which is specially provided for by these conditions), the same shall be referred to the sole arbitration of the Head of the Purchase Office or of some other person appointed by him, and the dispute further processed in terms of the Arbitration & Conciliation Act, 1996 and its amendment from time to time. There will be no objection that the arbitrator is a Government Servant that he had to deal with matter which the Contract relates to or that in the course of his duties as Government Servant has expressed views on all or any of the matters in dispute or difference. The award of the arbitrator shall be final and binding on the parties of this Contract.

29. If the arbitrator is the Head of the Purchase Office : (i) In the event of his being transferred or vacating his office by resignation or otherwise, it shall be lawful for his successor in office either to proceed with the reference himself for to appoint another person as arbitrator, or In the event of his being unwilling or unable to act for any reason, it shall be lawful for the Head of the Purchase Office to appoint another person as arbitrator

30. If the arbitrator is a person appointed by the Head of the Purchase Office, In the event of his denying or neglecting or refusing to act, or resigning or being unable to act, for any reason, shall be lawful for the Head of the Purchase Office either to proceed with the reference himself or to appoint another person as arbitrator in place of the outgoing arbitrator subject, as aforesaid, to the Arbitration and Conciliation Act, 1996, and the rules thereunder and any statutory modifications thereof for the time being in force shall be deemed to apply to the arbitration proceeding under the clause. The Arbitrator shall have the power to extend with the consent of the Purchaser and the Contractor the time for making and publishing the award. The venue of arbitration shall be the place as the Purchaser in his absolute discretion may determine. Work under the Contract shall, if reasonably possible, continue during Arbitration Proceedings.

31. COUNTER TERMS AND CONDITION OF SUPPLIERS:Where counter terms and conditions printed or cyclostyled conditions have been offered by the supplier, the same shall not be deemed to have been accepted by the Purchaser, unless specific written acceptance thereof is obtained.

32. SECURITY FOR PURCHASE OF MATERIALS: Successful tenderer will have to furnish in the form of a bank guarantee or any other form as called for by the purchaser towards adequate security for the materials and properties provided by the Purchaser for the due execution of the Contract.

7. PPP Make in India(Non- Divisible Items-Class I & II Local Suppliers Only)

1. In line with Public Procurement (Preference to Make in India), Order 2017 & its amendments issued by Govt. of India from time to time with a view to support the Indian industries, ISRO has implemented "Purchase Preference Policy". The "Purchase Preference" is applicable for the "Class-I Local Supplier" for the goods/ services/ works covered in this tender, subject to the following terms & conditions:-

2. a) The subject item falls under Non-divisible category. b) The offers sought only from Class-I & Class-II local suppliers

3. Definitions: A supplier or service provider, whose goods, services or works offered for procurement, has local content: a) Equal to or more than 50% : Class-I local supplier. b) Minimum 20% but less than 50% : Class-II local supplier. c) Less than 20% : Non-local supplier.

4. 'Local content' means the amount of value added in India (i.e. indigenous items/services added in the offered products/ services/ works) be the total value of the item offered (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties/IGST) as a proportion of the total value (excluding net domestic indirect taxes), in percent.

5. The margin of Purchase Preference shall be up to 20%.

6. 'Margin of purchase preference' means the maximum extent to which the price quoted by the "Class-I local supplier" above the L1 (landed cost).

7. 'L1' means the lowest technically accepted tender / bid / quotation (i.e. lowest landed cost including duties, taxes and freight & Insurance).

8. Works means all works as per Rule 130 of GFR- 2017, and will also include 'turnkey works'. Works includes Engineering, Procurement and Construction (EPC) contracts and services include System Integrator (SI) contracts.

9. Purchase Preference Policy:- Goods/Works which are not divisible (ie., required quantity is 1 or as a package) and Services:

a) If L1 is from a 'Class-I local supplier', the contract will be awarded to L1 bidder.

b) If L1 is not from a 'Class-I local supplier', the lowest bidder among the 'Class-I local supplier' will be invited to match the L1 price subject to local supplier's quoted price falling within the margin of purchase preference (i.e. 20%) and the contract shall be awarded to such 'Class-I local supplier'

subject to matching the L1 price (inclusive of duties, taxes and freight & insurance).

c) In case such lowest eligible 'Class-I local supplier' fails to match the L1 price, the 'Class-I local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on, and order/contract shall be awarded accordingly. In case where none of the 'Class-I local supplier' within the margin of purchase preference agree to match the L1 price, then the order/contract shall be awarded to the original L1 Bidder.

10. The 'Class-I & II local supplier' should provide a "Self Certification" along with technical offer indicating that the item offered meets the minimum local content [as per Sl. No.(3)] as called for in the tender and provide the percentage of local content along with details of the location(s) at which the local value addition is made. In case of two bid tenders, it is mandatory to indicate compliance to MLC(minimum Local Content) in technical bid zone.

11. The ink-signed certificate shall be provided on vendors letter head along with the offer (in case of online tender, copy of ink-signed certificate shall be uploaded along with your offer under concerned tab. Original in Hard copy shall be produced on request). In case of non-submission of certificate, the purchase preference shall not apply.

12. A committee (with an external expert from a practicing cost accountant or practicing chartered accountant, if required) constituted for independent verification shall verify the self-declarations & auditor's / accountant's certificates on random basis, as per the requirements.

13. In cases the quoted price is in excess of Rs.1000 Lakhs (including duties, taxes and freight & Insurance) the 'Class-I & II local supplier shall provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in case of suppliers other than companies) giving the percentage of local content.

14. In case of a complaint received from any local supplier indicating a need for review / verification of Local content of successful vendor / awarded vendor, for accepting a complaint from such complainant (w.r.t the false declaration given by the successful vendor on the local content), a complaint fee of Rs.2 Lakhs or 1% of the locally manufactured items being procured (subject to a maximum Rs. 5Lakhs), whichever was higher, to be paid by demand draft by the complainant. In case, the complaint is found to be incorrect, the complaint fee shall be forfeited. In case, the complaint is upheld and found to be substantially correct, deposited fee of the complainant would be refunded without any interest.

15. False declarations will be in breach of code of the integrity for which a bidder or its successor's will not be eligible/debarred for purchase preference from further tenders / pending tenders for two years along with other actions as may be applicable.

16. The Public Procurement (Preference to Make in India), Order 2017 issued by Govt. of India

indicates that if there are any general or specific restrictive clauses to restrict participation of Indian companies in those countries procurement tenders, reciprocity clause need to be invoked as per the order. Hence, if ISRO or Govt. of India come across that Indian suppliers of an item are not allowed to participate and / or compete in procurement by your government, the bid submitted by you will be not be considered and excluded from eligibility for procurement. Please note this point.

8. Format for Self Certification under Preference to MAKE IN INDIA Policy CERTIFICATE

1. In line with Government Public Procurement Order No. P-45021/2/2017-BE-II dt. 15.06.2017, as amended from time to time and as applicable on the date of submission of tender, we hereby certify that we M/s. _____(supplier name) are local supplier meeting the requirement of minimum percentage of Local content _____ (class I/Class II) as defined in above orders for the materials against Tender No. _____

2. Details of locations at which local value addition will be made is as follows:

3. We also understand, false declarations will be in breach of the Code in Integrity under Rule 175(1) (i) (h) of the General Financial Rule for which a bidder or its successors can be debarred for up two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

4. Seal and Signature of Authorized Signatory

5. Note:In cases the quoted price is in excess of Rs.1000 Lakhs (including duties, taxes and freight & Insurance) the Class-I & II local supplier shall provide the Make In India Local Content declaration from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in case of suppliers other than companies) giving the percentage of local content, details of Local value addition and address at which such local value addition is being made.

9. Conditions for BIDDER FROM A COUNTRY WHICH SHARES LAND BORDER WITH INDIA

1. As per the Rule 144(xi) of General Financial Rule, 2017, any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the competent authority ie., Department for Promotion of Industry and Internal Trade (DPIIT).

2. Hence, Vendors or Agents of a Vendor (Indian or others) from a country sharing border with India shall submit copy of valid registration made with Department for Promotion of Industry and Internal

Trade (DPIIT), Government of India along with the tender mandatorily, without which the offer will be treated as invalid.

3. Model Certificate for Tenders : "I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered". Please submit this declaration duly signed and stamped by your Authorized signatory in your Company/OEM's Letter head.

4. Validity of Registration: Registration should be valid at the time of submission of bids and should be valid at the time of placement of order.

5. Any false declaration and non-compliance of the above would be a ground for immediate rejection of offer or termination of the contract and further legal action in accordance with the laws.

10. GeM Seller ID

1. GeM Seller Registration: All vendors shall register themselves in GeM Portal (gem.gov.in) and provide GeM Seller unique ID in the tender documents, as this ID is mandatory for award of contract.

C. Bid Templates

C.1 Technical Bid - Supply, Installation and commissioning of TCT control systems

1. PLC Supply, installation and commissioning of TCT control systems as per detailed specifications in ANNEXURE-01

Item specifications for PLC

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Control system 1	TCS	Yes / No / Explain		
2	General 1.1 Control system	Hot standby PLC	Yes / No / Explain		
3	1.2 Cycle time including I/O scan, full application program & 64 PID loops execution	10 ms	Yes / No / Explain		
4	1.3 Event Data Acquisition	10 ms	Yes / No / Explain		
5	1.4 Analog Data Acquisition	10 ms for any user selected 128 parameters and for remaining parameters at 50 or 100ms (user selectable) interval.	Yes / No / Explain		
6	1.5 Data updation in SCADA	< 500 ms	Yes / No / Explain		
7	1.6 Communication between PLC and Remote Nodes	Redundant	Yes / No / Explain		
8	1.7 Communication port in PLC and remote nodes	2 Independent ports	Yes / No / Explain		
9	1.8 Time drift over a period of 1000 seconds	< 10ms	Yes / No / Explain		
10	1.9 Switch over time from main to redundant	< 20ms	Yes / No / Explain		
11	1.10 Analog and digital I/O Data availability at PLC level	10 ms	Yes / No / Explain		

12	1.11 Operating Temperature	15-50 Deg.C	Yes / No / Explain		
13	1.12 Humidity	5-95 %, non condensing	Yes / No / Explain		
14	1.13 Hot swappable	Required	Yes / No / Explain		
15	1.14 PLC programming languages	As per IEC 61131-3 High level language with object oriented programming shall be available	Yes / No / Explain		
16	1.15 SCADA	Unlimited Tags	Yes / No / Explain		
17	1.16 Redundancy in all levels	Processor, power supply, communication controller, I/O modules, Networks, server, SCADA.	Yes / No / Explain		
18	1.17 Diagnostic feature	Required	Yes / No / Explain		
19	1.18 Servers	Hot standby	Yes / No / Explain		
20	1.19 Data logging	Data of both Main & redundant at every 10ms	Yes / No / Explain		
21	1.20 Offline data processing	Required	Yes / No / Explain		
22	1.21 System cabinet	Independent for Main & redundant	Yes / No / Explain		
23	1.22 PID loops	Software : 64 Nos	Yes / No / Explain		
24	1.23 Ethernet	1000 Mbps	Yes / No / Explain		
25	1.24 Data base for analog and digital data	Required	Yes / No / Explain		
26	1.25 Data reporting software for continuous acquisition	24 hours	Yes / No / Explain		
27	1.26 Retrieval of 1 hour data	5 minutes	Yes / No / Explain		
28	1.27 Provision to display the parameters in mimic acquired using another data acquisition	Required	Yes / No / Explain		

29	1.28 Provision to simultaneously monitor and log the data from both main and redundant	Required	Yes / No / Explain		
30	1.29 Provision to start /stop the acquisition without affecting the functioning of the control system	Required	Yes / No / Explain		
31	1.30 Development of application program and mimics	Required	Yes / No / Explain		
32	1.31 Reference for the quoted configuration	To be provided	Yes / No / Explain		
33	1.32 ANALOG INPUT MODULE	TCS AI Module	Yes / No / Explain		
34	1.33 No. of channels	≥ 4 per module	Yes / No / Explain		
35	1.34 Input Signal	4-20mA/0-20mA, ±10VDC/0-10 VDC	Yes / No / Explain		
36	1.35 Resolution for 0-10 V	≥ 16 bit	Yes / No / Explain		
37	1.36 Filter	Type : Low pass	Yes / No / Explain		
38	1.37 Filter Bandwidth	10 to 30 Hz (selectable)	Yes / No / Explain		
39	1.38 Voltage input Impedance	≥ 1 M ohms	Yes / No / Explain		
40	1.39 Current input Impedance	≤ 500 ohms	Yes / No / Explain		
41	1.40 a) Accuracy @STP	≤ ± 0.1 % for voltage	Yes / No / Explain		
42	1.41 b) Accuracy @STP	≤ ± 0.2 % for current	Yes / No / Explain		
43	1.42 Conversion time	< 10 ms	Yes / No / Explain		
44	1.43 Electrical Isolation	≥ 250 V	Yes / No / Explain		
45	1.44 Reverse Polarity protection	To be provided	Yes / No / Explain		
46	1.45 Channel health monitoring and diagnostics	required for each channel	Yes / No / Explain		

47	1.46 IO redundancy	required/programmable	Yes / No / Explain		
48	1.47 ANALOG OUTPUT MODULE	TCS AO module	Yes / No / Explain		
49	1.48 No. outputs	≥ 4 per module	Yes / No / Explain		
50	1.49 Output Signal	4-20 mA	Yes / No / Explain		
51	1.50 Resolution	≥ 16 bits	Yes / No / Explain		
52	1.51 Conversion time	< 10 ms	Yes / No / Explain		
53	1.52 Accuracy @STP	≤ ± 0.2 %	Yes / No / Explain		
54	1.53 Load Resistance for Current	≥ 500 Ω	Yes / No / Explain		
55	1.54 Electrical Isolation	≥ 250 V	Yes / No / Explain		
56	1.55 Short circuit protection	To be provided	Yes / No / Explain		
57	1.56 Channel health monitoring and diagnostics	required for each channel	Yes / No / Explain		
58	1.57 IO redundancy	required/programmable	Yes / No / Explain		
59	1.58 DIGITAL INPUT MODULE	TCS DI module	Yes / No / Explain		
60	1.59 No. of inputs	≥ 16 per module	Yes / No / Explain		
61	1.60 Input voltage (Nominal)	24 V DC	Yes / No / Explain		
62	1.61 Switching Threshold Low	< 10 V	Yes / No / Explain		
63	1.62 Switching Threshold High	> 12 V	Yes / No / Explain		
64	1.63 Input Resistance	≥ 2 KΩ	Yes / No / Explain		
65	1.64 Switching Delay	≤ 2 ms	Yes / No / Explain		
66	1.65 Electrical Isolation	≥ 250 V	Yes / No / Explain		

67	1.66 LED Indication	To be provided for individual channel in module	Yes / No / Explain		
68	1.67 Reverse Polarity protection	To be provided	Yes / No / Explain		
69	1.68 Channel health monitoring and diagnostics	required for each channel	Yes / No / Explain		
70	1.69 IO redundancy	required/programmable	Yes / No / Explain		
71	1.70 DIGITAL OUTPUT MODULE	TCS D0 module	Yes / No / Explain		
72	1.71 No. of Outputs	≥ 16 per module	Yes / No / Explain		
73	1.72 Type	Transistor	Yes / No / Explain		
74	1.73 Output Voltage	24 V DC	Yes / No / Explain		
75	1.74 ON/OFF Switching Delay	≤ 2 ms	Yes / No / Explain		
76	1.75 Continuous Current Per Output	≥ 0.1 A	Yes / No / Explain		
77	1.76 Electrical Isolation	≥ 250 V	Yes / No / Explain		
78	1.77 LED Indication	To be provided for individual channel in module	Yes / No / Explain		
79	1.78 Channel health monitoring and diagnostics	required for each channel	Yes / No / Explain		
80	1.79 IO redundancy	required/programmable	Yes / No / Explain		
81	1.80 PULSE INPUT CARD	TCS PI module	Yes / No / Explain		
82	1.81 Number of Channel Input	≥ 2 per module	Yes / No / Explain		
83	1.82 Input Voltage	24 V DC	Yes / No / Explain		
84	1.83 Input Current	≤ 10 mA	Yes / No / Explain		
85	1.84 Input Frequency	10 Hz to 100 KHz	Yes / No / Explain		
86	1.85 Counter Resolution	≥ 16 bits	Yes / No / Explain		

87	1.86 Input Resistance	$\geq 2 \text{ K}\Omega$	Yes / No / Explain		
88	1.87 Measurement Technique	Period measurement	Yes / No / Explain		
89	1.88 Electrical Isolation	$\geq 250 \text{ V}$	Yes / No / Explain		
90	1.89 Channel health monitoring and diagnostics	required for each channel	Yes / No / Explain		
91	1.90 IO redundancy	required/programmable	Yes / No / Explain		
92	1.91 Software	TCS software	Yes / No / Explain		
93	1.92 Run time	Required	Yes / No / Explain		
94	1.93 Development	Required	Yes / No / Explain		
95	1.94 Real time	Required	Yes / No / Explain		
96	1.95 Data Acquisition	Required	Yes / No / Explain		
97	1.96 Data retrieval & offline processing	Required	Yes / No / Explain		
98	1.97 System & Application software	Required	Yes / No / Explain		
99	1.98 Multitasking	Required	Yes / No / Explain		
100	1.99 Third party interface & OPC connectivity	Required	Yes / No / Explain		
101	Control system 2	ESS	Yes / No / Explain		
102	General 2.1 Control system	Stand alone system	Yes / No / Explain		
103	2.2 Cycle time including I/O and full application program	10 ms	Yes / No / Explain		
104	2.3 Event Data Acquisition	10 ms	Yes / No / Explain		
105	2.4 Analog Data Acquisition	10 ms	Yes / No / Explain		
106	2.5 Offline data processing	Required	Yes / No / Explain		

107	2.6 Data base for analog and digital data	Required	Yes / No / Explain		
108	2.7 Data reporting software for continuous acquisition	24 hours	Yes / No / Explain		
109	2.8 Retrieval of 1 hour data	5 minutes	Yes / No / Explain		
110	2.9 Data base for analog and digital data	Required	Yes / No / Explain		
111	2.10 Data updation in SCADA	< 500 milli second	Yes / No / Explain		
112	2.11 Operating Temperature	15-50 Deg.C	Yes / No / Explain		
113	2.12 Humidity	5-95 %, non condensing	Yes / No / Explain		
114	2.13 Hot swappable	Required	Yes / No / Explain		
115	2.14 PLC programming languages	As per IEC-61508-3	Yes / No / Explain		
116	2.15 Diagnostic feature	Required	Yes / No / Explain		
117	2.16 System cabinet	Required	Yes / No / Explain		
118	2.17 PID loops	Software : 16 Nos	Yes / No / Explain		
119	2.18 SIL standard & Certification	SIL3	Yes / No / Explain		
120	2.19 Provision to start /stop the acquisition without affecting the functioning of the control system	Required	Yes / No / Explain		
121	2.20 Development of application program and mimics	Required	Yes / No / Explain		
122	2.21 Reference for the quoted configuration	To be provided	Yes / No / Explain		
123	2.22 ANALOG OUTPUT MODULE	ESS AO Module	Yes / No / Explain		
124	2.23 No. of outputs	≥ 2 channel per module	Yes / No / Explain		

125	2.24 Output Signal	4-20 mA	Yes / No / Explain		
126	2.25 Resolution	≥ 12 bit	Yes / No / Explain		
127	2.26 Conversion time	< 10 ms	Yes / No / Explain		
128	2.27 Accuracy	≤ ± 0.50 %	Yes / No / Explain		
129	2.28 Electrical Isolation	≥ 250 V	Yes / No / Explain		
130	2.29 Certification	SIL 2 or higher	Yes / No / Explain		
131	2.30 ANALOG INPUT MODULE	ESS AI Module	Yes / No / Explain		
132	2.31 No. of inputs	≥ 2 channel per module	Yes / No / Explain		
133	2.32 Input Signal	0-10 V	Yes / No / Explain		
134	2.33 Resolution	≥ 16 bit	Yes / No / Explain		
135	2.34 Conversion time	< 10 ms	Yes / No / Explain		
136	2.35 Accuracy	≤ ± 0.30 %	Yes / No / Explain		
137	2.36 Electrical Isolation	≥ 250 V	Yes / No / Explain		
138	2.37 Certification	SIL 3	Yes / No / Explain		
139	2.38 DIGITAL INPUT MODULE	ESS DI Module	Yes / No / Explain		
140	2.39 No. of inputs	≥ 4 Channel per module	Yes / No / Explain		
141	2.40 Input voltage (Nominal)	24 V DC	Yes / No / Explain		
142	2.41 Reaction Time	< 10 ms	Yes / No / Explain		
143	2.42 Electrical Isolation	≥ 250 V	Yes / No / Explain		
144	2.43 Reverse Polarity Protection	To be provided	Yes / No / Explain		
145	2.44 Status Indication	Required for individual channel	Yes / No / Explain		

146	2.45 Certification	SIL 3	Yes / No / Explain		
147	2.46 Fail Safe Condition	Low or High configurable	Yes / No / Explain		
148	2.47 Failure Indication	Yes, provision for remote detection	Yes / No / Explain		
149	2.48 DIGITAL OUTPUT MODULE	ESS D0 Module	Yes / No / Explain		
150	2.49 No. of Outputs	≥ 2 per module	Yes / No / Explain		
151	2.50 Output Voltage	24 V DC	Yes / No / Explain		
152	2.51 Reaction Time	< 10 ms	Yes / No / Explain		
153	2.52 Current Per Output	≥ 0.1 A	Yes / No / Explain		
154	2.53 Electrical Isolation	≥ 250 V	Yes / No / Explain		
155	2.54 Status Indication	LED for individual channel	Yes / No / Explain		
156	2.55 Certification	SIL 3	Yes / No / Explain		
157	2.56 Fail Safe Condition	Low or High configurable	Yes / No / Explain		
158	2.57 Failure Indication	Yes, provision for remote detection	Yes / No / Explain		
159	2.58 Software	ESS Software	Yes / No / Explain		
160	2.59 Run time	Required	Yes / No / Explain		
161	2.60 Development	Required	Yes / No / Explain		
162	2.61 Real time	Required	Yes / No / Explain		
163	2.62 Data Acquisition	Required	Yes / No / Explain		
164	2.63 Data retrieval & offline processing	Required	Yes / No / Explain		
165	2.64 System & Application software	Required	Yes / No / Explain		
166	Control system 3	SS	Yes / No / Explain		

167	3.1 DC (mV) Source	SS mV Source	Yes / No / Explain		
168	3.2 Signal Output Range (selectable)	±50/±100 mV DC	Yes / No / Explain		
169	3.3 Number of channels	≥ 4 per module	Yes / No / Explain		
170	3.4 Voltage Resolution	≤ 5 µV	Yes / No / Explain		
171	3.5 Accuracy	≤ 0.15%	Yes / No / Explain		
172	3.6 Output resistance	≤ 5 ohms	Yes / No / Explain		
173	3.7 Settling time	< 5 milli second	Yes / No / Explain		
174	3.8 DC (V) Voltage Source	SS V Source	Yes / No / Explain		
175	3.9 Signal Output Range	±10 V DC	Yes / No / Explain		
176	3.10 Number of channels	≥ 4 per module	Yes / No / Explain		
177	3.11 Voltage Resolution	≤ 2 mV	Yes / No / Explain		
178	3.12 Accuracy	≤ 0.1%	Yes / No / Explain		
179	3.13 Output resistance	≤ 5 ohms	Yes / No / Explain		
180	3.14 Settling time	< 5 milli second	Yes / No / Explain		
181	3.15 DC (mA) milli Ampere Source	SS mA Source	Yes / No / Explain		
182	3.16 Signal Output Range	4-20 mA	Yes / No / Explain		
183	3.17 Number of channels	≥ 4 per module	Yes / No / Explain		
184	3.18 Resolution	16 bit	Yes / No / Explain		
185	3.19 Accuracy	≤ 0.2% FSR	Yes / No / Explain		
186	3.20 Load resistance	min 500 Ω (drivable)	Yes / No / Explain		

187	3.21 Resistance (ohm) Low range Source	SS resistance Source	Yes / No / Explain		
188	3.22 Signal Output Range	0.5 Ω to 100 Ω	Yes / No / Explain		
189	3.23 Number of channels	≥ 2 per module	Yes / No / Explain		
190	3.24 Number of wires	4 wire RTD	Yes / No / Explain		
191	3.25 Resolution	0.05 ohm	Yes / No / Explain		
192	3.26 Accuracy	$\leq \pm 0.1\%$ or better	Yes / No / Explain		
193	3.27 Settling time	< 5 milli second	Yes / No / Explain		
194	3.28 Resistance (ohm) High range Source	SS resistance Source	Yes / No / Explain		
195	3.29 Signal Output Range	100 Ω to 1 K Ω	Yes / No / Explain		
196	3.30 Number of channels	≥ 2 per module	Yes / No / Explain		
197	3.31 Number of wires	4 wire RTD	Yes / No / Explain		
198	3.32 Resolution	0.125 ohm	Yes / No / Explain		
199	3.33 Accuracy	$\leq \pm 0.2\%$ or better	Yes / No / Explain		
200	3.34 Settling time	< 5 milli second	Yes / No / Explain		
201	3.35 Frequency (Hz) Source	SS Frequency Source	Yes / No / Explain		
202	3.36 Signal Output Range	1 Hz to 5 KHz	Yes / No / Explain		
203	3.37 Number of channels	≥ 2 per module	Yes / No / Explain		
204	3.38 Counter Resolution	≥ 32 bits	Yes / No / Explain		
205	3.39 Accuracy	± 1 Hz or better	Yes / No / Explain		
206	3.40 Voltage Level	TTL or 24 V open CC	Yes / No / Explain		

207	3.41 Digital Input Card	SS DI	Yes / No / Explain		
208	3.42 No. of inputs	≥ 4 per module	Yes / No / Explain		
209	3.43 Digital Input Voltage(Nominal)	24 V DC	Yes / No / Explain		
210	3.44 Input Resistance	≥ 2 KΩ	Yes / No / Explain		
211	3.45 LED Indication	To be provided for individual channel in module	Yes / No / Explain		
212	3.46 DIGITAL OUTPUT CARD	SS DO	Yes / No / Explain		
213	3.47 No. of Outputs	≥ 4 per module	Yes / No / Explain		
214	3.48 Output Voltage	24 V DC	Yes / No / Explain		
215	3.49 Current Per Output	≥ 0.1 A	Yes / No / Explain		
216	3.50 LED Indication	To be provided for individual channel in module	Yes / No / Explain		
217	3.51 Matrix Switch card	SS switch card	Yes / No / Explain		
218	3.52 Number of relay cross points	512	Yes / No / Explain		
219	3.53 Maximum Switching current	0.5 A per channel	Yes / No / Explain		
220	3.54 Maximum Switching power	10 Watts per channel	Yes / No / Explain		
221	3.55 DC path Resistance	< 1 Ω	Yes / No / Explain		
222	3.56 Resistance of Open channel	> 1 GΩ	Yes / No / Explain		
223	3.57 Bandwidth for two wire configuration	> 100 Hz	Yes / No / Explain		
224	3.58 Cross Talk	-90 dB @ 10 KHz	Yes / No / Explain		
225	3.59 Isolation	90 dB @ 10 KHz	Yes / No / Explain		
226	3.60 Relay operate time	< 300 us	Yes / No / Explain		

227	3.61 Relay release time	< 300 us	Yes / No / Explain		
228	3.62 Controller & Chassis	SS controller	Yes / No / Explain		
229	3.63 System	Distributed architecture with local and remote I/O. Remote I/O configured in Mobile Portable Rack. Distance between remote and local node is 250 meters maximum.	Yes / No / Explain		
230	3.64 Chassis	Synchronised chassis with compatibility of all proposed cards	Yes / No / Explain		
231	3.65 Status LEDs	Chassis temperature, power supply voltage and fan monitoring	Yes / No / Explain		
232	3.66 Monitoring Functions	Chassis voltage level monitoring, Power supply monitoring/control, Cooling fans monitoring/control, Chassis temperature monitoring	Yes / No / Explain		
233	3.67 Software	SS Software	Yes / No / Explain		
234	3.68 Run time	Required	Yes / No / Explain		
235	3.69 Development	Required	Yes / No / Explain		
236	3.70 Real time	Required	Yes / No / Explain		
237	3.71 Data Acquisition	Required	Yes / No / Explain		
238	3.72 Data retrieval & offline processing	Required	Yes / No / Explain		
239	3.73 Application software	Required	Yes / No / Explain		
240	3.74 V&V report Generation	Required	Yes / No / Explain		
241	3.75 T&E report Generation	Required	Yes / No / Explain		

242	3.76 Programming languages	High level languages preferably python	Yes / No / Explain		
243	4.1 TCS control system CYCLE TIME	Time in msec (for main and redundant I/Os combined)	Yes / No / Explain		
244	4.2 Read Scan time for Digital Inputs : 3184 Nos	Time in msec to be specified	Yes / No / Explain		
245	4.3 Read Scan time for Analog Inputs : 640 Nos	Time in msec to be specified	Yes / No / Explain		
246	4.4 Program Execution Time for System & Application program	Time in msec to be specified	Yes / No / Explain		
247	4.5 Program Execution Time for 64 PID loops	Time in msec to be specified	Yes / No / Explain		
248	4.6 Communication Overheads (inclusive of 2000m OFC)	Time in msec to be specified	Yes / No / Explain		
249	4.7 Write Scan time for Digital Outputs : 2528 Nos	Time in msec to be specified	Yes / No / Explain		
250	4.8 Write Scan time for Analog Outputs : 128 Nos	Time in msec to be specified	Yes / No / Explain		
251	4.9 Time for Acquisition/ data transfer to server	Time in msec to be specified	Yes / No / Explain		
252	4.10 Miscellaneous Overheads	Time in msec to be specified	Yes / No / Explain		
253	4.11 Wait Period	Time in msec to be specified	Yes / No / Explain		
254	4.12 Redundancy management	Time in msec to be specified	Yes / No / Explain		
255	4.13 TOTAL TIME	Time in msec to be specified	Yes / No / Explain		
256	5.1 ESS control system CYCLE TIME	Time in msec	Yes / No / Explain		
257	5.2 Read Scan time for Digital Inputs : 56 Nos	Time in msec to be specified	Yes / No / Explain		
258	5.3 Read Scan time for Analog Inputs : 8 Nos	Time in msec to be specified	Yes / No / Explain		
259	5.4 Program Execution Time for System & Application program	Time in msec to be specified	Yes / No / Explain		

260	5.5 Program Execution Time for 16 PID loops	Time in msec to be specified	Yes / No / Explain		
261	5.6 Communication Overheads (inclusive of 2000m OFC)	Time in msec to be specified	Yes / No / Explain		
262	5.7 Write Scan time for Digital Outputs : 88 Nos	Time in msec to be specified	Yes / No / Explain		
263	5.8 Write Scan time for Analog Outputs : 16 Nos	Time in msec to be specified	Yes / No / Explain		
264	5.9 Time for Acquisition/ data transfer to server	Time in msec to be specified	Yes / No / Explain		
265	5.10 Miscellaneous Overheads	Time in msec to be specified	Yes / No / Explain		
266	5.11 Wait Period	Time in msec to be specified	Yes / No / Explain		
267	5.12 Redundancy management	Time in msec to be specified	Yes / No / Explain		
268	5.13 TOTAL TIME	Time in msec to be specified	Yes / No / Explain		

Common Specifications (Applicable for all items)

SI No	Specification	Value	Compliance	Offered Specification	Remark
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1	Pre Qualification Criteria	<p>a.The bidders shall suitably fill-up the information solicited in "Item specification" and submit as part of the Techno-Commercial Bid (TCB). Those Bidders who comply with the PQ criteria only will be screened in for opening and evaluation of the price bid. The Information to be submitted in the TCB shall be complete in all respects substantiated by valid documents and there shall not be any further opportunity for the bidders to submit any information or document unless the department solicits so at their own discretion.</p> <p>b.Any lack of information or incomplete/ambiguous information or false information or information non-complaint with the PQ criteria shall be treated as sufficient cause to summarily reject such bids.</p> <p>c.Previous experience in the execution of projects of the nature and quantum on par minimum cycle time (10 ms) with those specified in this document. The bidder shall be required to submit the copies of previously executed purchase orders with corresponding Performance certificate/ Completion certificate from the clients for the values not less than Rs.200.00 lakhs in single order or Rs.100.00 lakhs in two orders for the last ten years.</p> <p>d.System Integrator: The bidder shall be</p>	Yes / No / Explain		
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		system house integrator of reputed PLC manufacturers like and proof of the same to be submitted. e.Clientele, specifying the clients to whom they have executed works of nature similar to that specified in this document. The address, telephone, fax, e-mail and contact person of the clients shall also be specified.			
2	Price Validity	The quoted price should be valid for a period of 6 months from the date of opening of the technical and commercial quotation.	Yes / No / Explain		
3	GUARANTEE	The performance of the system shall be guaranteed by the Contractor for a period of 12 months from the date of final acceptance (after SAT) of the system at the Department's site. The Contractor shall furnish a Performance Bank Guarantee (PBG) for 3% of the contract price for the same.	Yes / No / Explain		
4	EXECUTION PERIOD	The overall period for completion of projection shall not exceed 9 months.	Yes / No / Explain		

Supporting Documents required from Vendor

1. Price Format for AMC as per annexure D6 (Price Bid Related)
2. Price Format of Spares for ESS System as per annexure D5 (Price Bid Related)
3. Price Format for Signal Simulator – SS as per annexure D3 (Price Bid Related)
4. Price Format of Spares for Control System (TCS) as per annexure D4 (Price Bid Related)

5. **Price Format for emergency Shut Down System – ESS as per annexure D2 (Price Bid Related)**
6. **Price Format for Control System TCS as per annexure D1 (Price Bid Related)**
7. **Bill of material without cost**
8. **unpriced format**
9. **Pre qualification criteria**
10. **Authorised Distributer certificate**
11. **Detailed catalogues including make and model**
12. **Technical compliance statement with detailed description**
13. **Scope of the intallation and commissioing work**
14. **MEMORANDUM OF UNDERTAKING as per RFP Annexure-C**
15. **Local Content Declaration as per the provided format in bid documents. Declaration in any other format will not be acceptable].**
16. **Copy of your Quotation in PDF format with detailed Terms & Conditions, WITHOUT PRICE DETAILS/MASKING ALL PRICE DETAILS. ENSURE NOT TO MENTION ANY PRICE IN THIS DOCUMENTS,OTHERWISE THE QUOTE WILL BE INVALID.**
17. **MSME UDYAM Registration Certificate**
18. **Any other documents [Note: Do Not mention price in these documents. If price is mentioned your offer will be rejected].**

5 additional documents can be uploaded by the vendor

C.2 Commercial Terms / Bid

Sl. No.	Description	Compliance	Vendor Terms
1	Party shall provide the documents related to pre qualification criteria terms and conditions	Yes / No / Explain	
2	Party shall provide the previous supplied order details	Yes / No / Explain	
3	Party shall provide Technical compliance.	Yes / No / Explain	
4	Party shall provide detailed catalogue for all the items which will be supplied	Yes / No / Explain	
5	Party shall explain the scope of work in technical bid itself	Yes / No / Explain	
6	<p>IMPORTANT NOTE: This is a Two-Part tender i.e. Techno-Commercial Part Containing C.1 (Technical Bid), Supporting Documents required from Vendor, C.2 (Commercial Terms / Bid) and C3. Price Bid . Please note that all technical commercial details without price shall be furnished in the Documents Solicited from Vendor & in Commercial Compliance C.2 (Commercial Terms / Bid) Fields while price shall be indicated only in the C3. Price Bid & in fields which are marked as Price Bid Related. PRICE SHALL BE MENTIONED ONLY IN THE PRICE BID FORM & IN THE PRICE BID RELATED FIELD. [ENSURE NOT TO MENTION ANY PRICE ANYWHERE ELSE, OTHERWISE THE QUOTE WILL BE INVALID. PLEASE NOTE BEFORE/WHILE SUBMITTING YOUR OFFERS. Note and Confirm.</p>	Yes / No / Explain	
7	<p>Foreign vendors & Non Local suppliers are not permitted to quote. Only Class-I and Class-II Local suppliers as per Make in India Policy are eligible to participate in the bid. Ensure to Upload Local Content Declaration as per the attached format given in this tender document. Without Local Content declaration your offer will not be considered for evaluation. Note and Confirm.</p>	Yes / No / Explain	

8	Security Deposit (Applicable if Offer Value is Rs. 5 Lakhs or above. MSME/NSIC Units are NOT EXEMPTED from the payment of SD. Bank Guarantee @ 3% of Order Value valid till 60 days from the date of supply to be submitted. Mandatory compliance required. Only Government Bodies/PSUs/PSEs can submit Indemnity Bond in lieu of BG. In the event of non-performance of contractual obligations, SD will be forfeited). Note and Confirm.	Yes / No / Explain	
9	Taxes and other costs (Specify). We are eligible for GST @5% as per relevant notification of IGST/CGST/SGST [IGST@5%:- Notification No. 7/2018 - Integrated Tax (Rate) dated 25.01.2018 & its amendment and CGST @2.5% vide Notification No: 6/2018 - Central Tax (Rate) dated 25.01.2018 & its amendments and SGST@2.5% as per Government of Tamil Nadu, Commercial Taxes & Registration (B1) Department G.O(Ms) No.18 Dtd. 25/01/2018 & its amendments]. Necessary concessional GST certificate will be provided along with the P.O. Please note and quote accordingly.	Yes / No / Explain	
10	Delivery Terms: Normal delivery terms - FOR Destination (i.e., IPRC, Mahendragiri), Specify if any other delivery terms are being offered.	Yes / No / Explain	
11	Delivery Period:	Yes / No / Explain	
12	Liquidated Damages (Applicable beyond the delivery period mentioned in the order @ 0.5% per week subject to a maximum of 10% of the contract value. Mandatory compliance required). Note and Confirm.	Yes / No / Explain	
13	Warranty Period :-	Yes / No / Explain	
14	Performance Bank Guarantee (PBG):- Bank Guarantee @ 3% of Order Value valid till the completion of warranty period plus 2 months claim period to be submitted. Mandatory compliance required. Only Government Bodies/PSUs/PSEs can submit Indemnity Bond in lieu of BG. In the event of non-performance of warranty obligations, PBG will be forfeited). Note and Confirm.	Yes / No / Explain	

15	Payment Terms: Our Default payment term:Our Normal Payment terms: 100% within 30 days after receipt and acceptance of item at our site. (No advance payment is acceptable). Specify your Payment Terms.	Yes / No / Explain	
16	Class-I local suppliers can avail purchase preference as per Make In India OM of DPIIT, if their offer falls within the margin of Purchase Preference with respect to the lowest bid. Note and Confirm.	Yes / No / Explain	
17	Definitions as per make In India policy of Govt. of India: A supplier or service provider, whose goods, services or works offered for procurement, has local content: a)Equal to or more than 50% : Class-I local supplier. b)More than 20% but less than 50% : Class-II local supplier. c)Less than or equal to 20% : Non-local supplier. Mention your category.	Yes / No / Explain	
18	The Class-I & II local supplier should provide a Self Certification along with your offer in PDF format indicating that the item offered meets the minimum local content as called for in the tender as mentioned above and provide the % of local content along with details of the location(s) at which the local value addition is made. In case of two part tenders, it is mandatory to indicate compliance to MLC(minimum local content) in technical bid itself. Confirm attachment of Self declaration along with the offer.	Yes / No / Explain	

19	Local content means the amount of value added in India (i.e. indigenous items/services added in the offered products/services/works) be the total value of the item offered (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties/IGST) as a proportion of the total value (excluding net domestic indirect taxes), in percent. Indicate extent of Minimum Local Content in offered product/service and location of such value additions. [Please note that as per DPIITs OM Ref P-45021/102/2019-BE-II-Paart(1)(E-50310) Dtd. 04/03/2021 you cannot claim as Class-I local suppliers/Class-II local suppliers by claiming the services such as transportation, insurance, installation, commissioning, training and after sales service support like AMC/CMC etc. as local value addition]. Confirm that your declared Local content is line with these guidelines.	Yes / No / Explain	
20	Country of origin of the offered product	Yes / No / Explain	
21	Declaration:-"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder- is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered." Note and Confirm.	Yes / No / Explain	
22	Confirm MSME or not. If applicable provide UDYAM REGISTRATION certificate along with the offer.	Yes / No / Explain	
23	PO Ordering Address with Name and Contact Details of Sales Person concerned (e-mail and phone number).	Yes / No / Explain	
24	Offer Validity.[After opening of Part-120 Days, After opening of Part-II-60 Days]. Confirm.	Yes / No / Explain	
25	GeM (https://gem.gov.in) Seller Registration: If Registered in GeM portal, Please provide your GeM Seller unique ID.	Yes / No / Explain	
26	Any other terms	Yes / No / Explain	

C.3 Price Bid

Sl. No.	Item	Quantity	Unit Price	Currency	Total Price	Remark
1	PLC Supply, installation and commissioning of TCT control systems as per detailed specifications in ANNEXURE-01	1.00 Lot		-		

Common charges (Applicable for all items)

Operation and Maintenance (O&M) support-Price	
NC-AMC Charges for Three Years after Warranty	