

प्लाज्मा अनुसंधान संस्थान

(परमाणु ऊर्जा विभाग, भारत सरकार का एक सहायता प्राप्त संस्थान)

इंदीरा ब्रिज के पास, भाट, गांधीनगर - 382428, भारत

दूरभाष: 079-23962020/23962021, फ़ैक्स: 079-23962277

निविदा सूचना दिनांक 01-10-2019

TENDER NOTICE DATED 01-10-2019

निम्नलिखित के लिए प्रतिष्ठित एवं योग्य पार्टियों से दो भागों में मोहरबंद निविदाएँ आमंत्रित की जाती हैं।

Sealed tenders are invited in **TWO PART** from reputed and eligible parties for the following.

क्र. सं.	निविदा सूचना सं.	मद	मात्रा	अंतिम तारीख और समय		निविदा शुल्क (₹.)	ईएमडी (₹.)
				निविदा जमा करने की तारीख	निविदा खोलने की तारीख		
1.	IPR/TN/PUR/TPT/19-20/31 (TWO PART TENDER)	Supply, fabrication, inspection, testing and commissioning of L.T. AC cubical pattern Circuit Breaker Panel and Bus Duct as per BOM with all accessories.	1 No.	27-11-2019 by 1.00 p.m.	27-11-2019 at 2.30 p.m.	300.00	60,500.00

निविदा दस्तावेज आईपीआर की वेबसाइट पर उपलब्ध हैं: : <http://www.ipr.res.in/documents/tenders.html>. निविदा दस्तावेजों में उल्लिखित पात्रता मानदंडों को पूरा करने वाले निविदाकार, उनके विकल्प पर, वेबसाइट से निविदा दस्तावेज डाउनलोड कर सकते हैं और निविदा दस्तावेजों में दिए गए विवरण के अनुसार निर्धारित निविदा शुल्क (अप्रतिदेय) और ईएमडी को किसी भी राष्ट्रीयकृत/अनुसूचित बैंक से डिमांड ड्राफ्ट के रूप में, जो प्लाज्मा अनुसंधान संस्थान के नाम में और अहमदाबाद में देय, के साथ अपना प्रस्ताव जमा कर सकते हैं। यह ध्यान दिया जाए कि निविदा की तारीखों, विनिर्देशों और नियमों और शर्तों के संबंध में कोई भी अद्यतन सूचना होने पर वह आईपीआर की वेबसाइट पर अधिसूचित और अपलोड की जाएगी और इस संबंध में अलग से कोई शुद्धिपत्र प्रकाशित नहीं किया जाएगा। अतः इच्छुक बोलीदाताओं को ऐसी अद्यतन सूचना जानने के लिए नियमित रूप से आईपीआर की वेबसाइट पर जाना होगा। यदि पार्टी डाक द्वारा निविदा दस्तावेज प्राप्त करना चाहती है, तो वे निर्धारित निविदा शुल्क के साथ क्रय अधिकारी से संपर्क कर सकते हैं। निविदा दस्तावेज 31-5-2019 तक जारी किए जाएंगे।

Tender documents are available on IPR Website : <http://www.ipr.res.in/documents/tenders.html>. Tenderers meeting the eligibility criteria mentioned in the tender documents may, at their option, download the tender documents from the website and submit their offer along with prescribed **Tender Fee (non refundable) and EMD** in the form of Demand Draft from any nationalized/scheduled bank drawn in favour of **Institute for Plasma Research** and payable at **Ahmedabad** as per the details given in the tender documents. It is to be noted that all further updates or amendments if any regarding the tender dates, specifications and terms & conditions

shall be notified and uploaded on the IPR website and no separate corrigendum would be published in this regard. Therefore, interested bidders need to visit the website of IPR on a regular basis for such updates. In case party desires to collect the tender documents by post, they may contact the Purchase Officer along with prescribed tender fee. Tender documents will be issued upto **15-11-2019**.

निविदा खोलने में भाग लेने वाले प्रतिनिधि को निविदा खोलने में भाग लेने के लिए संगठन से प्राधिकरण पत्र लेना होगा, जिसके न होने पर उसे निविदा खोलने में शामिल होने की अनुमति नहीं दी जाएगी।

Representative who is going to attend the tender opening should carry an authorization letter from the organization for participation in the tender opening failing which he/she will not be allowed to attend the tender opening.

TENDER FORM

प्लाज्मा अनुसंधान संस्थान

(भारत सरकार के परमाणु ऊर्जा विभाग का सहायता प्राप्त संस्थान)

इंदीरा ब्रिज के पास, भाट, गांधीनगर - 382428, भारत

दूरभाष: 079-23962020/23962021, फैक्स: 079-23962277

निमंत्रण निविदा और निविदाकारों को निर्देश करने के लिए

Invitation to Tender and Instructions to Tenderers

The Purchase Officer, Institute for Plasma Research invites tenders in **TWO PART** for supply of stores as detailed in the Purchaser's Tender documents. The conditions of contract and instructions to tenderers which will govern the contract pursuant to tender are given below.

If you are in a position to quote for the supply in accordance with the requirements stated in the attached Tender Form please submit your quotation as per the details given in the tender documents.

Kindly ensure that your quotation reaches us on or before the due date indicated in the tender notice.

Yours faithfully,

D.Ramesh
Purchase Officer-II

INSTITUTE FOR PLASMA RESEARCH
(An Autonomous Institute under
Department of Atomic Energy, Government of India)
Near Indira Bridge; Bhat; Gandhinagar-382428; India
Phone: 079-23962020/23962021, Fax: 079-23962277
Email: ramesh@ipr.res.in

INSTRUCTION SHEET

TENDER NOTICE No.IPR/TN/PUR/TPT/19-20/31
DATED 01/10/2019
(TWO PART)

For Supply, fabrication, inspection, testing and commissioning of the L.T. AC cubical pattern Circuit Breaker Panel and Bus Duct as per the BOM with all accessories.

1. Full details and specifications of the items and general instructions to be followed regarding submission of tenders are indicated in the tender documents.
2. **Proof for fulfillment of eligibility criteria mentioned hereunder should be submitted along with the tender. If the tender is submitted without valid documents, we shall not consider your offer. Tenders received without proof of eligibility criteria will be rejected.**
3. Tender documents can also be obtained by submitting a written request to the Purchase Officer together with prescribed tender fee, provided that the eligibility criteria is fulfilled. Last date for issue of Tender documents is 15-11-2019.
4. While requesting for Tender Documents, such request shall indicate **the “REQUEST FOR TENDER DOCUMENTS AGAINST TENDER NOTICE NO. IPR/TN/PUR/TPT/19-20/31 DATED 01/10/2019”.**
5. **Tender Fee:** The tender fee of Rs.300/- (non refundable) should be made in the form of DEMAND DRAFT issued by SBI/nationalized banks or any one of the scheduled banks mentioned in the bracket (Axis Bank, HDFC Bank, ICICI Bank and IDBI Bank) drawn in favour of *Institute for Plasma Research* and payable at *Ahmedabad*. Vendor's name and tender number shall be indicated on the reverse side of the Demand Draft.
- 5.1 **Exemption from payment of Tender Fee:** The firms registered with NSIC, DPS or Micro & Small Enterprises (MSEs) which are actual producers/manufacturers of tendered items are exempted

from payment of Tender Fee provided valid registration certificate is submitted along with the offer.

6. **DD should not be prior dated to the date of advertisement. Separate request letter and separate Demand Draft shall be sent for each tender.**
7. **Those who use the downloaded tender documents from IPR Website may submit the prescribed Tender Fee keeping in a separate envelope along with the tender.**
8. **Tenders received without the prescribed tender fee will be rejected.**
9. No request for the extension of due date will be considered.
10. Late/Delayed offers will not be accepted.
11. **Tender in a sealed envelope (Technical Bid, Commercial terms and conditions and EMD [Part-I] in one envelope and Price Bid [Part-II] in another envelope) superscribing the envelope with the above tender no., date, due date and brief description of tendered item should be submitted to the *Purchase Officer* at the above address by 1.00 p.m. on 27-11-2019. Part-I (Technical Bid along with Tender Fee of Rs.300/-, commercial terms and conditions and EMD for Rs.60,500/-) received upto 1.00 p.m. on 27-11-2019 will be opened on the same day at 2.30 p.m. in the presence of attending tenderers.**
12. IPR will not be responsible for any delay/loss of documents in transit.
13. Tenders received without the details asked for including proof of eligibility for participating in the tender may not be considered.
14. Tenderers should furnish/enclose full technical details/literature, delivery period and confirm the terms and conditions attached with the tender.
15. **Those who do not meet with the eligibility criteria need not submit Tender.**
18. The Director, IPR reserves the right to accept or reject any offer in full or part thereof without assigning any reason thereof.
19. **Quotations received without EMD will not be considered.**

ELIGIBILITY CRITERIA:

(The bidder is required to submit all supporting documents as proof for the compliance of the following criteria. The attachments must be serially labelled with the number as given in the table below. Bids received without valid documents and/or incomplete and irrelevant documents are likely to be rejected summarily)

Sr.No.	Essential Eligibility compliance	Evidence for submission	Attachment Sr.No. of proofs and evidence
1.	Bidder should be a manufacturer with in-house fabrication facility of LT Panels.	Bidder must provide copy of certificate confirming that bidder is a manufacturer of LT Panels.	
2.	Bidder should have successfully executed at least one purchase order for L.T. Panels with a current rating of 4000A or above at the time of publication of this tender.	a) Bidder should provide copy of unpriced purchase order/s with technical details as proof. b) Bidder should also provide work completion certificate of the same PO submitted above as proof.	
3.	Bidder should have type test certificate from NABL approved Lab for L.T. Panel with current rating of 4000A, 50kA or above. The tests shall have been conducted during the past 7 financial years i.e. 01-Apr-2012 to 31-Mar-2019.	Copy of type test certificate to be submitted as a proof.	

Note: Original documents shall be produced for verifications, if required.

The response to tender without submission of proof of above points will summarily be rejected without further communication.

NOTE: Issue of tender documents does not mean that a vendor is qualified to submit tenders. IPR's decision to consider as to whether a vendor has met with the eligibility criteria is final.

TWO-PART TENDER SECTION – A

Invitation to Tender and Tendering Conditions

1.0 INVITATION TO TENDER

- 1.1 Institute for Plasma Research (IPR) invites sealed tenders in DUPLICATE for supply of Plant, Machinery, Equipment/Components to the specifications detailed in Section "C" to this tender document. The conditions of contract/purchase order which will govern the contract pursuant to the tender are as contained in Section "B" of this tender document. If you are in a position to quote for supply in accordance with the technical specifications indicated in Section "C" to this tender document and as per the conditions stipulated in this Section and Section B, please submit your offer in a manner and method specified below.

2.0 MANNER AND METHOD FOR SUBMISSION OF TENDERS

- 2.1 All tenderers in response to this invitation shall be submitted in Two Parts as under and in the different envelopes.
- 2.1.1 **Part-I (Techno-commercial):** This part of the tender shall include/contain documents related to eligibility criteria, all technical details, technical specifications, drawings and also the commercial terms and conditions of contract for the supplies to be made and the services to be rendered **EXCLUDING ANY PRICE DETAILS THEREOF.**

Proof for fulfillment of eligibility criteria mentioned in Annexure-A should be submitted along with the tender. If the tender is submitted without valid documents, we shall not consider your offer. Tenders received without proof of eligibility criteria will be rejected.

- 2.1.2 **Part-II (Price):** This part should contain only the prices of the stores offered for the services to be rendered. Part-II (Price) should be furnished in accordance with the format provided by the Purchaser at Section "D" of this tender document
- 2.1.3 If tenderer includes prices of any nature in Part-I (Techno-commercial) of the tender such offers are liable for rejection without any notice to the tenderers.

3.0 EARNEST MONEY DEPOSIT (EMD)

- 3.1 The Tenderer shall submit, as part of its bid, interest free Earnest Money Deposit (EMD) for an amount as specified in the Tender Notice. In the case of foreign bidders, the EMD shall be submitted either by the principal or by the Indian agent and in the case of indigenous bidders; the EMD shall be submitted by the manufacturer or their specifically

authorized dealer/bidder. EMD shall be submitted by way of Demand Draft from **SBI/nationalized banks or any one of the scheduled banks mentioned in the bracket (Axis Bank, HDFC Bank, ICICI Bank and IDBI Bank)** issued in favour of "**Institute for Plasma Research**" and payable at **Ahmedabad. Tender received without EMD will be rejected at the discretion of IPR.**

- 3.2 The EMD of unsuccessful Tenderer will be discharged/returned after finalizing award of the Contract/placement of Purchase order.
- 3.3 The successful Tenderers EMD shall be discharged upon the Bidder submitting the Security Deposit as specified in the contract/purchase order, without any interest.
- 3.4 **Exemption from payment of EMD:** The firms registered with NSIC, DPS or Micro & Small Enterprises (MSEs) which are actual producers/manufacturers of tendered items are exempted from payment of EMD provided valid registration certificate is submitted along with the offer. In the case of foreign bidders, payment of EMD is exempted if they submit their bid directly or through their Indian agent in **foreign currency** against the tender document bought by them, so that the order can be placed directly on their Principals.
- 3.5 **The EMD may be forfeited:**
 - 3.5.1 If a Tenderer withdraws or amends or modifies or impairs or derogates its bid during the period of bid validity specified by the Bidder on the Bid Form; or
 - 3.5.2 In case of a successful tenderer, if the tenderer fails to furnish order acceptance within 15 days of the order or fails to submit the Security Deposit within 21 days from the date of contract/order.

4.0 LATE/DELAYED TENDERS

- 4.1 If the envelope containing Part-I (Techno-commercial) and Part-II (Price) does not reach the Purchase Officer, IPR on or before the due date and time specified for its receipt, such tenders will be treated as Delayed/Late tenders and will neither be opened nor considered by the Purchaser and will be summarily rejected. The tenderers should therefore take care and ensure that both Part-I and Part-II of their tenders reach the Purchase Officer, IPR on or before the due date and time specified for their receipt to avoid the rejection of the tenders.

5.0 OPENING OF TENDERS

- 5.1 Unless otherwise pre-opened or postponed with advance intimation to the tenderers, tender will be opened in two stages on the date and time indicated in the tender notice.
- 5.2 Part-I (Techno-commercial) of the tender will be opened at the first stage on the due date and time indicated for opening in the tender notice of this tender document while the Part-II (Price) will be opened at the second stage after completion of the evaluation of the Techno-Commercial Part (Part-I) of the tender.
- 5.3 While all the tenderers who submit tenders within the due date and time specified for its receipt will be permitted to participate in the opening of Part-I (Techno-Commercial) of the tender on the

due date and time indicated in the instruction sheet of this tender document, opening of the Part-II (Price) of the tender can be attended to only by such of those tenderers whose Part-I (Techno-commercial) of the tenders are found to be technical suitable/acceptable to the Purchaser and to whom intimation thereof is given by the Purchaser by Email/letter.

- 5.4 The tenderers whose Techno-commercial part (Part-I) are found suitable/acceptable to the Purchaser, will be given seven days advance intimation by the Purchaser to enable such tenderers to depute their representative to participate in the opening of the Part-II (Price) of the tender. The technically unqualified tenderers will neither be given any intimation about the date and time of opening of Part-II (Price) of the tender nor will they be permitted to participate in the opening of the same. **Part-II (Price) of the technically disqualified tenderers will not be opened.**

6.0 AUTHORITY LETTER

- 6.1 The tenderers who wish to participate in the opening of the tenders may depute their representatives to IPR on the respective due date and time as indicated in the tender notice with an authority letter addressed to the Purchase Officer which should be produced to the officers who are opening the tenders, on demand to prove the bonafides of the representative who participates in the opening of the tender. In case the representative of the tenderer fails to produce such an authority letter on behalf of the tenderer, he will be debarred from participating in the opening of the tenders.
- 6.2 The tenderers representative, who reaches the venue of the tender opening late, i.e. after the starting time specified for opening of the tenders, may not be allowed to take part in the tender opening. It should be noted that only one representative of each tenderer will be permitted to participate in the tender opening.

7.0 EVALUATION OF TENDER

- 7.1 Evaluation of tender shall be based on all inclusive landed cost.

8.0 PURCHASER'S RIGHTS TO REJECT QUOTATION

- 8.1 The Purchaser reserves the right to reject any quotation without assigning any reason thereof.

9.0 TECHNICAL CLARIFICATIONS

- 9.1 After opening of Part-I (Techno-commercial) of the tender, if it becomes necessary for IPR to seek clarifications from the tenderers, the same will be sought for from the tenderers.

10.0 DATE FOR OPENING OF PART-II (PRICE):

After completion of technical evaluation, Part-II (Price) of only technically qualified tenderers shall be opened. The date and time of opening of Part-II (Price) shall be intimated only to the technically qualified tenderers. Whose Part-I offers have been found suitable will only be permitted to participate in the opening of the Part-II (Price) of the tender.

11.0 HOLIDAYS

If the date (s) specified for receipt and opening of the tenders is/are declared as holidays abruptly by the competent authority due to any administrative reasons, then the date(s) for opening of tenders will get postponed automatically to the next working day. As for instance, if the due date for receipt of tender and its opening falls on 3rd of a particular month and if the 3rd day of the month is declared as a holiday, then the opening date of tender will stand automatically postponed to 4th day of the month at the same time. However, due date for submission of tender will remain same as mentioned in the tender notice.

12.0 VALIDITY OF OFFERS

Offers shall be kept valid for acceptance for a period of of 120 (One hundred twenty) days from the date of opening of Part-II (Price) of the tender. Offers with shorter validity period will be liable for rejection.

13.0 CATALOGUES/TECHNICAL LITERATURE

Vendor shall submit all necessary catalogues/drawings technical literature data as are considered essential for full and correct evaluation of the offers shall invariably accompany the Part-I (Techno-Commercial) of the tender. The quotations are liable to be ignored if this condition is not complied with.

14.0 TERMS AND CONDITIONS OF THE CONTRACT

It must be clearly understood that any contract concluded pursuant to this invitation to tender shall be governed by the General Conditions of the Contract as contained in Section "B" of this tender document. Tenderers must therefore, take special care to go through these general conditions of contract and in exceptional cases if any deviations are proposed, these must be clearly indicated in the Part-I of the tender as a separate annexure instead of merely enclosing their printed conditions of Sale. Tenders made subject to counter conditions or far too many deviations from the general conditions of contract, i.e. Section "B" of this tender document are liable to be ignored. It should also be realised that failure to bring out deviations from the General Conditions of Contract contained in Section "B" of this tender document will imply that the tenderer is willing to execute the contract as per the Purchaser's terms and conditions of contract.

15.0 TENDERING CONDITIONS FOR BIDS

- 15.1 The prices quoted must be FIRM and preference will be given to such tenders. In exceptional cases (e.g. items involving substantial use of raw materials susceptible to sharp fluctuations in prices) if prices quoted subject to variation it shall be on the basis of a standard 'Price Variation Formula'. The basis for calculation shall be very clearly stated. The responsibility for furnishing the documentary evidence for price variation lies with the vendor. Here again preference will be given to the tenders with a specific ceiling on escalation.
- 15.2 Prices quoted by the tenderer should include all charges involved for direct and safe-delivery of the stores to the consignee/place of delivery indicated in the tender document. If a tenderer so desires, separate lump sum charges for safe-delivery of the stores to the consignee/purchaser's site, could be furnished. However, the purchaser reserves the right to call for break-up. The purchaser will

neither undertake responsibility for transit insurance nor pay for it separately.

- 15.3 In respect of tenders on Ex-works basis, in case the tenderer has not mentioned in the offer packing, forwarding and transportation charges for safe delivery up to Purchaser's site, 2% of the price quoted towards packing (in respect of both local and outstation firms), 1% of the basic price quoted towards safe delivery charges in respect of local tenderer and 3% of the basic price quoted towards safe delivery charges in respect of outstation firm will be added for comparison of offers on safe door delivery at Purchaser's site.
- 15.4 The stores shall neither be despatched under 'owner's risk' nor consigned to 'self', but only to the consignee's name and address indicated in the Purchase order. Non-adherence to this condition shall make the contractor liable to bear all consequential penalties/expenses such as demurrage, wharf age, etc. which the Purchaser may incur.
- 15.5 The consignee will, as soon as possible, but not later than 45 days from the date of arrival of stores at destination notify the contractor of any loss or damage to the stores that may have occurred during transit to enable the contractor to repair/rectify the defects/damages or replace the goods as is appropriate, free of all charges. In case it is desired by the contractor for returning of the material to them all expenses towards transportation etc. will be borne by the supplier and also will furnish bank guarantee towards the cost of material.
- 15.6 In case an Indian supplier/Agent furnishes an offer for supply of outrightly imported stores, the price of such stores shall be quoted in Indian Rupees for delivery to the consignee's premises exclusive of import duties and on firm price basis.
- 15.6 **Conditional Discount:** In case the tenderer offers any conditional discount with regard to acceptance of their offer within a specific payment terms, delivery, quantity etc. the purchaser will not take into consideration such conditional discount while evaluating their offer.

16.0 SPARES AND ACCESSORIES

- 16.1 Tenders for plant/machinery/equipment/component shall also indicate prices for essential accessories, optional accessories and spares necessary for satisfactory operation of the plant/machinery/equipment.
 - 16.1.1 for a period of two years and
 - 16.1.2 for a period of five years
- 16.2 Prices for accessories and spares shall be itemized. Tenders where only lumpsum prices are indicated are liable to be ignored. Particular care must be taken to list out each item of spare and quantity recommended and also the individual price for these items. These details should be included only in Part-II (Price) of the tender. However, a list of spares and accessories without Price should be included in Part-I (Techno-Commercial) of the tender.

17.0 QUANTITY

The purchaser reserves the right to accept tenders for any quantity of his choice and the tenderer shall be bound to accept a contract for any quantity. The Purchaser also reserves the right to accept or reject lowest or any tender in full or in part without assigning any reasons.

18.0 STATUTORY LEVIES SUCH AS CUSTOMS DUTY, GOODS AND SERVICE TAX

18.1 CUSTOMS DUTY

- 18.1.1 The Purchaser is entitled for assessment of customs duty at the concessional rate as per Customs Notification No. 51/96-Custom dated 23.7.1996 issued by the Department of Revenue, Ministry of Finance, as amended from time to time, in respect of purchases made for the Research Institutions under the Department of Atomic Energy and the Purchaser will obtain the requisite certificate from the appropriate authority.
- 18.1.2 In case an Indian vendor/agent submits an offer for supply of outrightly imported stores in Indian Rupees, they should quote price for free and safe delivery of stores at destination.
- 18.1.3 Wherever, against a requirement, both indigenous as well as imported offers are received, the offers for imported stores will be evaluated on the basis of the total landed cost after loading the custom duty and other levies as may be applicable from time to time for taking purchase decision.
- 18.1.4 High Seas sale will not be considered.

18.2 FLUCTUATION IN CUSTOMS DUTY

- 18.2.1 Unless otherwise specifically agreed to in terms of the Contract, the purchaser shall not be liable for any claim on account of fresh imposition and /or increase in Customs Duty on raw materials and/or components used directly in the manufacture of the contracted stores, taking place during the pendency of the contract.

- 18.3 **Offers from Indian Agents on behalf of foreign suppliers:** In case the tender is submitted by an Indian supplier/Indian agent on behalf of their foreign supplier/ principals, following documents should be submitted with the tender, failing which, their offer is liable to be ignored.

- 18.3.1 Photocopy of the Agency Agreement between the Principals and the Indian Agent showing the percentage or the quantum of agency commission payable and a Letter of Authority from the Principals authorizing the Indian Agents to submit the tender on their behalf.
- 18.3.2 The type and nature of after sales services to be rendered by the Indian Agent.
- 18.3.3 Both Indian Agent and Principal/OEM cannot bid simultaneously for the same item/product in the same tender.
- 18.3.4 The Indian Agents are allowed to quote on behalf of only one foreign Principal/ Supplier against this tender.

18.4 GOODS AND SERVICE TAX

- 18.4.1 GOODS AND SERVICE TAX where legally leviable as per relevant HSN code will be admitted and reimbursed at the rate applicable during original delivery date.
- 18.4.2 GOODS AND SERVICE TAX intended to be claimed should be distinctly shown separately along with the price quoted. Where this is not done, no claim for GOODS AND SERVICE TAX will be admitted at any later stage and on any ground whatsoever.
- 18.4.3 The Purchaser is entitled for assessment of GST at the Concessional rate as per Notifications issued by the Government, as amended from time to time, in respect of purchases made for the Research and Development applications under the

- Department of Atomic Energy and other R&D units.
- 18.4.4 **GST for R&D Unit:** Goods and Service Tax (GST) wherever applicable will be paid extra at actual during the delivery period stipulated in the Purchase order. In terms of notifications issued by the Central Government and State Governments, R&D units of Department of Atomic Energy are entitled for IGST @ 5% or CGST @ 2.5% and SGST @ 2.5% as applicable for stores covered under the Purchase Order.
- 18.4.5 **GST for Services:** As applicable. Specify the SAC codes wherever services are involved.
- 18.4.6 It would be the responsibility of the contractor to ensure that relevant certificate is obtained from the Purchaser before effecting the delivery of goods ordered failing which the excess tax paid by the contractor shall not be reimbursed by the Purchaser.
- 18.4.7 When GOODS AND SERVICE TAX is claimed as extra by the vendor in general and on packing charges in particular, the following certificates should be submitted by the vendor to the Paying Authority on the bills itself.
- 18.4.8 Certified that the goods and packing charges on which GOODS AND SERVICE TAX has been charged have not been exempted under the Central Sales Tax or the State Sales Tax Act or the rules made there-under and the amount charged on account of GST on these goods and packing charges are not more than what is payable under the provision of relevant Act or the rules there-under.
- 18.4.9 Certified further that we have actually paid GOODS AND SERVICE TAX and are being assessed to GST on packing charges and also that where there are statutory exemption under the Relevant Act/Law of the State Government concerned, we have availed ourselves of it and certified non-availability of such a provision for GST on packing charges wherever claimed.
- 18.4.10 Certified further in respect of amount claimed into the bill no claim is pending for refund/or admissible. Certified that in the event of our getting refund in whole or in part of the element of GOODS AND SERVICE TAX on packing charges claimed from Government, we shall pass on the benefit to the Purchaser by remitting to Government the amount equivalent to the amount of refund obtained by us.
- 18.4.11 Further certified that we abide by the all the provisions of Acts of Government and rules made thereunder especially regarding anti-profiteering provisions.
- 18.4.12 Certified further that we (our Branch or agent) _____

 (address) are registered as dealers in the State of _____
 under Local Regn. No. _____ and in the State of _____
 _____ under Central Regn. No. _____ for the
 purpose of State/Central Tax.
 (Stamp & Signature of the Vendor)
- 18.4.13 The vendor shall solely be responsible for declaration of Goods and Service Tax made in his invoice and shall indemnify the purchaser from any claim or its liability from concerned authorities at any stage.
- 18.4.14 Certificate with each bill to the effect that no refund has been obtained in respect of the reimbursement of GST made to vendor

during three months immediately preceding the date of the claim covered by the relevant bill.

- 18.4.15 AN UNDERTAKING to the effect that in case any refund of GST is granted to the vendor by concerned authorities in respect of stores supplied under the contract, they shall pass on the credit to the purchaser immediately alongwith a certificate from their Director/Manager/Proprietor/ Accountant to the effect that the credit so passed on relates to the GST originally paid for the stores supplied under the contract. In case of their failure to do so within 10 days of the issue of the refund orders to them by the Authorities, the purchaser would be empowered to deduct a sum equivalent to the amount refunded by the authorities without any further reference to the vendor, from any of their outstanding bills against this or any other pending Government Contracts and that no dispute on this account would be raised by the vendor.
- 18.4.16 Statutory Deductions, as applicable shall be made from the supplier's bill.

18.5 DEDUCTION OF TAX AT SOURCE (TDS)

As per Government of India rules, it is mandatory that income tax shall be deducted at source at applicable rates as per relevant act, rules and notifications issued by the government from time to time.

18.5.1 In case of Indigenous Vendors (Indian Suppliers who provide indigenous products and services, Indian subsidiaries with permanent establishment in India who supply imported goods and services and paid in Indian currency only): Tax deducted at source will be applicable under Section 194-C for carrying out any work (including supply of labour for carrying out any work) in pursuance of contract as per Income Tax Act 1961. In case of technical or professional services, TDS will be applicable as per under Section 194-J of Income Tax Act 1961.

18.5.2 In case of Foreign Vendors (Foreign Suppliers who provide goods from abroad paid in foreign currency and providing technical services by Indian subsidiary paid in Indian currency): The TDS is applicable where services are rendered in India directly or through their Indian counter part against foreign Purchase order / Contract as per the provision of under Section 195 of Income Tax act of India. Wherever DTAA (Double Taxation Avoidance Agreement) agreement exists between India and the supplier country the provisions of the agreement shall be applicable. For getting benefit of DTAA (Double Taxation Avoidance Agreement), the following documents must be submitted, otherwise full TDS will be deducted.

- a) No Permanent Establishment in India certificate
- b) Tax Residency Certificate (TRC) issued by Tax authorities of their country
- c) Form 10F if TRC does not contain required details
- d) PAN (Permanent Account Number) details issued by Indian Income Tax Authority

Important Note:

- a) Where bifurcation is inappropriate and unacceptable for supply of material and providing services the purchase order / contract will be treated as **Composite Contract** and TDS will be deducted on whole contract / purchase order value as per applicable rate.
- b) TDS or any other leviable taxes or duties, if applicable, shall be deducted recovered from the Supplier's bill and necessary certificate will be issued to the supplier.
- c) Details on relevant sections of Income Tax Act and DTAA treaties can be obtained from <https://www.incometaxindia.gov.in/Pages/acts/income-tax-act.aspx>.

19.0 FLUCTUATION IN STATUTORY LEVIES

Unless otherwise specifically agreed to in terms of the Contract, the purchaser shall not be liable for any claim on account of fresh imposition and/or increase in statutory levies on raw materials and/or components used directly in the manufacture of the contracted stores, taking place during the pendency of the contract. However, any reduction in statutory levies on these raw materials and/or components must be passed on to the Purchaser.

20.0 SAMPLES/PROTOTYPES

If any called for shall be submitted free of all charges by the Tenderer and the Purchaser shall not be responsible for any loss or damage thereof for any reason whatsoever. In the event of non-acceptance of the tender, the tenderer will have to make arrangements to remove/collect the sample/prototypes at his own expenses.

21.0 QUANTITIES

Quantities indicated are approximate only and one or more of the items of the stores tendered, or a portion of any one or more of the items of such stores may be accepted and the tenderer notwithstanding that his Tender has not been accepted in whole shall be bound to supply contracted quantity to the Purchaser.

22.0 SUBMISSION OF DRAWINGS

The tenderer shall furnish all drawings pertaining to the plant/machinery/ equipment/component to the Purchaser along with the tender for correct understanding and appreciation of the tender in quadruplicate. Besides, tenderers should also furnish general arrangement, schematic and such other drawings prescribed by the Purchaser within 4 weeks from the date of receipt of LOI/Purchase Order for approval. Such drawings should be furnished along with Part-I (Techno-Commercial) of the tender. Tenderer's drawing will form part of the purchase order/contract only after these are approved by the Purchaser.

23.0 INSTALLATION AND COMMISSIONING

- 23.1 Wherever, the purchaser's invitation to tender calls for installation and commissioning or supervision of installation and commissioning of the instrument/equipment by the tenderer, the tenderer must clearly and separately quote the prices for the supply of the stores and the charges

and the terms for installation and commissioning or supervision of installation and commissioning, as the case may be. The charges towards installation and commissioning should not be included in the price of the stores.

- 23.2 In respect of contracts involving installation and commissioning by vendors including overseas vendors where identifiable charges for the same has been quoted by the vendor, he shall bear the Income-tax liability as per the rates prevailing at the time of undertaking the job in accordance with the Income-tax Act in force in India.
- 23.3 Wherever, the scope of the contract includes installation and commissioning, it shall be the sole responsibility of the contractor to undertake the installation and commissioning as and when called for, by the Purchaser.

24.0 **INSPECTION**

- 24.1 The Contractor shall be responsible for and perform all inspection and testing required in accordance with the contract/purchase order and specifications included therewith.
- 24.2 The Purchaser may at his option depute his representative for inspection of the stores to be supplied under the contract or authorize and nominate a Quality Surveillance Agency of his choice for the purpose hereinafter called, in either case, the inspection.
- 24.3 The supplier shall give notice of readiness for inspection to the Purchaser so that the Inspector can be present at the requisite time. In such an event delivery shall not be effected until an authorization or shipping release is obtained from the Purchaser.
- 24.4 The contractor shall allow reasonable facility and free access to his work/factory and records to the inspector for the purpose of inspection or for ascertaining the progress of delivery under the contract.

25.0 **FACTORY REGISTRATION/SHOP & ESTABLISHMENT CERTIFICATE**

The tenderers shall submit the copy of the Factory Registration/License or Shop & Establishment Certificate as applicable, along with the tender, failing which the tenders are liable for rejection.

26.0 **PRODUCTS WITH ISI MARK**

- 26.1 Products with ISI mark will be preferred.
- 26.2 In respect of following categories of item, Purchaser will consider offers for products with ISI mark only:
- Fire Extinguisher
 - Building Material
 - PVC Pipes & fittings
 - Agricultural Implements & sprayers
 - Medical instruments such as syringes, needles, BP apparatus etc.

27.0 **SHOP/FACTORY EVALUATION, QUALITY SURVEILLANCE /INSPECTION AND SUBMISSION OF PROGRESS REPORTS**

- 27.1 The Purchaser or his technical authorities may at his option and prior to evaluation of the tender depute his Inspector or any quality surveillance Agency of his choice to the factory/workshop of the tenderer to assess and establish the manufacturing capability etc. of the tenderer. Similarly, the Purchaser may also

depute his inspector/Quality Surveillance agency of his choice for inspection of the plant/machinery/equipment/component during the various stages of manufacture in such an event the tenderer/contractor shall:-

- 27.1.1 Allow reasonable facility and free access to his factory/work/ records to the Inspector for the purpose of inspection or for ascertaining the progress of manufacture and delivery.
- 27.1.2 Provide the drawings, toolings, gauges, instruments etc. required for carrying out the inspection work.
- 27.1.3 Produce an inspection plan to the Purchaser's satisfaction notifying him when check points on the plan are imminent.
- 27.1.4 Not supply or deliver the plant/machinery/equipment/ component unless and until a Shipping Release or an authorisation for despatch is obtained in a format provided by the Purchaser. Failure to comply with this instruction will not only result in with holding of the payment to the contractor/supplier, but also hold the tenderer/contractor liable for payment of compensation to the Purchaser due to delay in clearance of the Equipment/plant/machinery/ component from the carriers.

28.0 INSTRUCTION MANUAL

In respect of plant/ machinery/ equipment/ instrument/ apparatus, where instruction/ operation manual is normally necessary to enable the user to put the plant/machinery/equipment/instrument/ apparatus to proper use, the Contractor shall furnish such an instruction/operation manual specific to the stores being supplied along with the plant/machinery/equipment/instrument/apparatus. The Contractor shall clearly specify in the offer about his readiness to supply instruction/operation manual

29.0 PACKING

- 29.1 Tenderers shall note that packing for shipment shall be in accordance with the instructions outlined in this tender document, each package shall be limited to the size and weights that are permissible under the existing Air and Sea limitations. Even when no packing specification is included in the invitation to tender, it will be Supplier's responsibility to provide appropriate packing depending upon the nature of the supply and the transportation and handling hazards.
- 29.2 The equipment shall be so packed and protected as not to suffer deterioration, damage or breakage during shipment and storage in a tropical climate.
- 29.3 Each package shall be properly labeled to indicate the type and quantity of material it contains, the purchase order number, its dimensions and weight and any other necessary data to identify the equipment and relate it to contract.

30.0 DEVIATIONS TO PURCHASER'S SPECIFICATIONS AND CONDITIONS OF CONTRACT

- 30.1 If any deviation or substitution from the technical specifications contained in Section "C" to this tender document is involved, such details should be clearly indicated in Part-I (Techno-Commercial) and should be added as an annexure to Part-I

(Techno-commercial) of the tender as otherwise it shall be an admission on the part of the tenderer that he will supply the equipment as specified by the Purchaser. Similarly, deviations to the Purchaser's General Conditions of Contract/Special Conditions of Contract contained in Section "B" of this tender document shall be indicated by the tenderer in another annexure to Part-I (Techno-commercial) of the tenderer.

30.2 Part-II (Price) should be furnished in accordance with the format provided by the Purchaser at Section "D" of this tender document.

31.0 DELIVERY

Tenderer should note that no tender will be considered by the Purchaser unless the Tenderer can meet the delivery schedule specified by the Purchaser. All equipments/machinery/plant/ component covered by this tender document should be supplied on or before _____ or _____ month from the date of approval of drawings or ____ month from the date of receipt of free issue materials. The prices quoted by the tenderer should include all charges involved for direct and safe delivery of the items by Road to the project site of the Purchaser. If a tenderer so desires/separate lumpsum charges for transportation and safe delivery to Purchaser's site could be furnished. Purchaser will neither undertake responsibility for transit insurance nor pay for it separately. No other, delivery term will be accepted by the Purchaser.

32.0 ACCEPTANCE OF TENDERS

32.1 The purchaser shall be under no obligation to accept the lowest or any other tender and shall be entitled to accept or reject any tender in part or full without assigning any reasons whatsoever.

32.2 Acceptance of tenders by the Purchaser will be sent by fax, E-mail, letter etc. within the validity date of the tender and such a fax, letter etc. would then be followed by a formal purchase order/contract. The tenderer whose offer is accepted will proceed with the execution of the contract on the basis of such advance acceptance of tenders without waiting for a formal purchase order/contract, and will be responsible to seek and obtain whatever clarifications that are necessary from the Purchaser to proceed with the manufacture without waiting for a formal purchase order/contract and delivery period will be reckoned from the date of the Letter of Intent.

33.0 SETTLEMENT OF COMMERCIAL TERMS AND CONDITIONS OF CONTRACT

In case the commercial terms and conditions of sale/contract stipulated in Part-I (Techno-commercial) of the tender submitted by the tenderer are at variance with the Purchaser's General Conditions of all Contracts/Special Conditions of Contract stipulated in Section "B" of this tender document, the Purchase Officer will settle the commercial terms and conditions of contract with the tenderers chosen for award of the contract by holding discussions with them OR by sending Fax/Letter/E-mail etc. In case the concerned tenderer to whom an intimation thereof is given does not respond/fail to respond to communication sent by the Purchaser within the date specified, his tender is liable for rejection at the discretion of Director, IPR and no

complaints whatsoever will be entertained from the tenderer for rejection of this tender. The tenderers should not discuss with the technical authorities/user department any of the commercial terms and conditions of contract and any agreement/understanding reached between the tenderer and the technical authorities will not be valid and binding.

34.0 COMPLIANCE WITH THE SECURITY REQUIREMENTS OF THE PURCHASER

The Contractor shall strictly comply with the Security Rules and Regulations of the Purchaser in force and shall complete the required formalities including verification from Police and any other authority and obtain necessary prior permission for entry into the Purchasers premises, wherever authorized by the Purchaser.

35.0 PAST PERFORMANCE

In case the past performance of the tenderer is not found to be satisfactory with regard to quality, delivery, warranty obligation and non-fulfillment of terms and conditions of the contract, their offer is liable to be rejected by the purchaser.

36.0 CAPACITY & FINANCIAL STANDING

In case it is found that the tenderer does not possess the requisite infrastructure, capacity, capability and their financial standing is not satisfactory, such tender is liable to be rejected by the Purchaser.

37.0 CONFIDENTIALITY

Drawings, specifications, prototypes, samples or any other correspondence/details/information provided by the Purchaser relating to the tender or the contract shall be kept confidential by the contractor, and should not be disclosed or passed on to any other person/firm without the prior written consent of the purchaser. This clause shall apply to the sub-contractors, consultants, advisers or the employees engaged by the Contractor.

38.0 RESTRICTED INFORMATION CATEGORIES UNDER SECTION 18 OF THE ATOMIC ENERGY ACT, 1962 AND OFFICIAL SECRETS UNDER SECTION 5 OF THE OFFICIAL SECRETS ACT, 1923

Any contravention of the above mentioned provisions by the contractor, sub-contractor, consultant, adviser or the employees of the contractor will invite penal consequences under the aforesaid legislation.

39.0 PROHIBITION AGAINST USE OF THE NAME OF ANY INSTITUTION OF DEPARTMENT OF ATOMIC ENERGY WITHOUT PERMISSION FOR PUBLICITY PURPOSES

The Contractor or sub-contractor, consultant, adviser or the employees engaged by the contractor shall not use the name of any Institution of Department of Atomic Energy for any publicity purpose through any public media like Press, Radio, TV or Internet without the prior written approval of the Purchaser.

40.0 FREE ISSUE MATERIAL *(This clause shall apply only to contracts for supply of fabricated equipment with purchaser's Free Issue Materials (FIM)).*

- 40.1 Wherever contracts envisage supply of Free Issue Material (FIM) by the Purchaser to the contractor, such Free Issue Material shall be safeguarded by an insurance policy to be provided by the Contractor at his own cost for the full value of such materials and the insurance policy shall cover, the following risks specifically and shall be valid for six months beyond the contractual delivery date.
- **Risk to be covered:** Any loss or damage to the Purchaser's material due to fire, theft, riot, burglary, strike, civil commotion, terrorist act, natural calamities etc. and any loss or damage arising out of any other causes such as other materials falling on purchaser's materials.
 - **Insured by:** (Name of the Contractor)
 - **Beneficiary:** Institute for Plasma Research, Near Indira Bridge, Bhat, Gandhinagar-382428.
 - **Amount for which insurance policy to be furnished:** The amount will be indicated in the respective contract.

Free Issue Material (FIM) will be issued to the Contractor only after receipt of the Insurance Policy from the Contractor. The contractor shall arrange collection of the FIM from the Purchaser's premises and safe transportation of the same to his premises at his risk and cost.

Notwithstanding the insurance cover taken out by the Contractor as above, 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 FIM 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. The Contractor shall be responsible for the safety of the free issue materials after these are received by them and all through the period during which the materials remain in their possession/control/ custody. The free issue materials on receipt at the Contractor's works shall be inspected by them for ensuring safe and correct receipt of the material. The Contractor shall report the discrepancies, if any, to the Purchaser within 5 days from the date of receipt of the material. The Contractor shall take all necessary precautions against any loss, deterioration, damage or destruction of the FIM from whatever cause arising whilst the said materials remain in their possession/custody or control. The FIM shall be inspected periodically at regular intervals by the Purchaser for ensuring safe preservation and storage. The contractor shall also not mix up the FIM with any other goods and shall render true and proper account of the materials actually used and return balance remaining unused material on hand and scrap along with final product and if it is not possible within a period of one month from the date of

delivery of the final product covered by this purchase order. The Contractor shall also indemnify the Purchaser to compensate the difference in cost between the actual cost of the FIM lost/damaged and the claim settled to the Purchaser by the insurance company. The decision of the Director, Institute for Plasma Research, as to whether the Contractor has caused any loss, destruction, damage or deterioration of the FIM while in his possession, custody or control from whatever cause arising and also on the quantum of damage suffered by the government, shall be final and binding upon the Contractor.

41.0 EXPORT LICENCE/EXPORT PERMISSION

41.1 It is entirely the responsibility of the vendors who are quoting for materials of foreign origin to ensure obtaining export permission/licence/authorisation as required from the respective Government before arranging shipment. This Department would not accept post supply inspection by any agency/authority of any foreign country. It is, therefore, necessary that the vendors offering materials from foreign countries shall have thorough knowledge of export contract regulations in vogue in those countries.

41.2 The vendors shall indemnify the purchaser against any consequences in respect of any end-use declaration they/their overseas Principals may furnish to the government/government agencies of the country of origin of the materials, while seeking export permission/licence. Post supply inspection, contrary to the terms and conditions of purchaser's contract shall be deemed to be null and void.

42.0 END USE CERTIFICATE

42.1 Whenever an End-use Certificate is desired by the vendor, the same shall be clearly mentioned in the quotation and the purchaser shall provide an Enduser Certificate as per the format given below. The Purchaser will not provide any other document/declaration in this regard.

END USER STATEMENT:

"We hereby certify that the item/s i.e. _____, being procured from M/s _____ against our Purchase Order No. _____ dated _____ will be used for _____. We also certify that the item/s will not be used in designing, developing, fabricating or testing of any chemical, biological, nuclear, or weapons of mass destruction or activities related to it. It is further certified that we will not re-export the Item/s prior to obtaining permission from the concerned authorities as may be required".

43.0 COUNTRY OF ORIGIN

43.1 Wherever the tenders are for imported stores, the Country of Origin of the stores must be clearly specified in the quotation.

44.0 LIABILITY

44.1 Vendors shall be liable for any damage to the purchaser or any third party out of any patent or latent defect in the goods supplied by him or sub-standard services rendered by him.

45.0 RIGHT TO REJECT QUOTATION

- 45.1 The Purchaser reserves the right to reject any quotation, which is not in conformity with the above instructions.
- 45.2 The Purchaser also reserve the right to reject any quotation without assigning any reason whatsoever.

46.0 PRICE / PURCHASE PREFERENCE

Purchase/Price preference to industries will be given as per the policy of the Government of India in force at the time of evaluation provided their offer is in compliance with the conditions of the policy.

47.0 PERMANENT ACCOUNT NUMBER (PAN)

- 47.1 Vendors are required to submit a true copy of the PAN Card/Letter issued by the Income-tax Department, failing which the tenders are liable to be rejected.
- 48.0 MSE bidders should declare their UAM (Udyog Aadhar Memorandum) number on CPPP portal to avail benefits as per Public Procurement Policy for MSE's order 2012.
- 49.0 The bidder shall not be under a declaration of ineligibility for corrupt or fraudulent practices or blacklisted with any of the Government Agencies.

Any additional conditions attached to this Invitation to Tender shall also form part of the contract conditions.

SECTION 'B'

**GENERAL CONDITIONS OF
CONTRACT**

**INSTITUTE FOR PLASMA RESESARCH
PURCHASE SECTION**

**GENERAL CONDITIONS OF ALL
CONTRACT**

&

**SPECIAL CONDITIONS OF CONTRACT
GOVERNING SUPPLIES OF
PLANT AND MACNHINERY**

GENERAL CONDITIONS OF CONTRACT

1. DEFINITIONS

- 1.1 The term 'PURCHASER' means the Institute for Plasma Research or its successors or assigns.
- 1.2 The term 'PARTICULARS' means the following:
 - 1.2.1 Specification
 - 1.2.2 Drawing
 - 1.2.3 Sealed pattern denoting a pattern sealed and signed by the Inspector
 - 1.2.4 Proprietary make denoting the produce of an individual firm
 - 1.2.5 Any other details governing the construction manufacture and/or supply as existing for the contract.
- 1.3 The term 'CONTRACTOR' or 'SUPPLIER' means, 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 (approved by the Purchaser), representatives, heirs, executors and administrators unless excluded by the contract.
- 1.4 The term 'CONTRACT' or 'PURCHASE ORDER' means and comprises of a Letter or Email or ink signed or digitally signed document conveying acceptance of Contractor's offer and invitation to tender, tender containing offer, advance acceptance of offer, general and special conditions of contract specified in the acceptance of offer and any subsequent amendments/alterations thereto made on the basis of mutual agreement.
- 1.5 The term 'STORES' or 'MATERIAL' means, the goods specified in the contract/purchase order which the contractor has agreed to supply under the contract.
- 1.6 The term 'SUB-CONTRACTOR' or 'SUB-SUPPLIER' means any contractor or supplier engaged by the contractor or the supplier with the prior approval of the Purchaser in relation to the contract/purchase order.
- 1.7 The term 'INSPECTOR' or 'QUALITY SURVEYOR' means any person nominated and deputed by the purchaser or their appointed Consultants or Quality Surveillance Agency or any other person from time to time authorized by the Purchaser to act as his representative for the purpose of inspection of stores under the contract/purchase order.

2. AUTHORITY OF PERSON SIGNING THE CONTRACT ON BEHALF OF THE CONTRACTOR

The person signing the contract or the purchase order or any other document in respect of the contract or purchase order on behalf of the contractor shall be deemed to warrant that he has the authority to bind the contractor.

3. SUBLETTING OF CONTRACT OR BILLS OR ANY BENEFIT ACCRUING THEREFROM

- 3.1 The Contractor shall not sublet, transfer or assign the Contract or any part thereof or bills or any other benefits, accruing therefrom or under the contract without the prior written consent of the Purchaser (All Sub-contractors are required to be appraised and approved by the Purchaser before placement of orders by the Contractor/Supplier). However, such consent shall not be unreasonably withheld by the Purchaser, if such stores are not normally manufactured by the Contractor, such assignment or subletting shall not relieve the Contractor from any contractual obligation or responsibility under the Contract.
- 3.2 Any breach of this condition shall entitle the Purchaser to cancel the Contract or any part thereof and to purchase from other sources at the risk and cost of the Contractor and shall recover from the Contractor damages arising from such cancellations.
- 3.3 In case the Contractor sublets, transfers or assigns any part of the Contract with the prior written consent of the Purchaser, all payments to the Sub-Contractor shall be the responsibility of the Contractor and any requests from such sub-Contractor shall not be entertained by the Purchaser.

4. SECURITY DEPOSIT

- 4.1 On acceptance of tender, the Contractor shall at the option of the Purchaser and within the period specified by him, submit a Bank Guarantee from SBI or any one of the nationalized banks or reputed private banks, viz. AXIS Bank, ICICI Bank, IDBI Bank and HDFC Bank towards Security Deposit not exceeding 10% (ten percent) of the tendered value of the contract/purchase order valid till at least 2 months beyond the acceptance date of the material, as the Purchaser shall specify.
- 4.2 If the Contractor is called upon by the Purchaser to submit Security Deposit and the contractor fails to provide the same 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 repurchase of the stores contracted for at the risk and expenses of the Contractor in terms of clause 9.2.4 hereof and/or recover from the Contractor damages arising from such cancellation. No claim shall lie against the purchaser either in respect of interest if any due on Security Deposit or depreciation in value.
- 4.3 Offers wherein contractors declined to submit Security Deposit are liable to be rejected.

5. DRAWINGS & SPECIFICATIONS

- 5.1 The drawings and specifications are intended to be complementary and to provide for an comprise everything necessary for the completion of supply. Any material shown on the drawing even if not particularly described in specifications or vice versa is to be supplied by the Contractor as if it were both shown and specified.

- 5.2 Should any discrepancy be noted in the drawings and/or specifications and should any interpretation of the same be required, the matter shall be referred to the Purchaser for clarification which shall be binding upon the contractor. Otherwise, the contractor shall assume responsibility for the interpretation of the drawings and specifications including interpretation by his sub-contractors.
- 5.3 Should any difference or dispute arise with regard to the true intent and meaning of drawings or specification or should any portion of the same be obscure or capable of more than one interpretation, the same shall be decided by the Purchaser whose decision shall be final.
- 5.4 All lettering on the drawings is to be considered as part of the specification and contract. In all cases figured dimensions are to be followed rather than those indicated by scale. Large scale drawings will take precedence over small scale drawings.
- 5.5 The contractor's drawings shall, when approved by the Purchaser, be deemed to be included in the list of drawings which form part of the contract. The Contractor shall not proceed with fabrication until all drawings associated therewith have been duly approved by the Purchaser.
- 5.6 The Contractor shall be responsible for and shall pay for any alterations of the stores and shall indemnify the Purchaser for any consequential expenditure incurred by the Purchaser due to any discrepancies, errors, omissions in the drawings or other particulars supplied by him whether such drawings or specifications have been approved by the Purchaser or not, provided that such discrepancies, errors or omissions be not due to inaccurate information or specifications furnished to the contractor on behalf of the Purchaser.
- 5.7 **General Warranty**
- 5.7.1 The stores supplied by the contractor under the contract shall be of best quality and workmanship. The contractor shall supply the stores in accordance with the contract specifications unless any deviation has been expressly specified in the contract and any amendments agreed thereto.
- 5.7.2 The contractor's offer to supply stores in accordance with the tender specifications shall be deemed to be in admission on his part that he has fully acquainted himself with the details thereof and no claim shall lie against the Purchaser on the ground that the contractor did not examine or acquaint himself fully with the tender specifications.
- 5.8 **Contractor's Liability for Defective Stores**
- 5.8.1 For a period of twelve months after the stores have been accepted by Purchaser the Contractor shall be responsible for any defects that may be discovered therein notwithstanding that such defects could have been discovered at the time of inspection or any defects therein are found to have developed under proper use, arising from faulty materials, design or workmanship and the Contractor shall remedy all such defects as aforesaid at his own cost provided he is called upon within a period of 14 months from the date of acceptance thereof to do

so, by the Purchaser who shall state in writing in what respect the goods are faulty and further if in the opinion of the Purchaser the defects are of such a nature that it is necessary to replace or renew any defective stores, such replacement or renewal shall be made by the Contractor without any extra costs to the Purchaser, provided notice informing the Contractor of the defect is given by the Purchaser within the said period of 14 months. The decision of the Purchaser notwithstanding any prior approval or acceptance of the Inspector as to whether or not the stores delivered are defective or any defect has developed within the said period of twelve months or as to whether the nature of defects renewal or replacement shall be final conclusive and binding on the Contractor.

6. ALTERATIONS

- 6.1 The Purchaser may, from time to time, make changes in the drawings specifications and issue additional instructions without altering the purchase order in any manner provided that no changes shall have been ordered which materially alter the character and scope of the supply under the contract.
- 6.2 It shall be lawful for the parties to the contract to alter by mutual consent at any time and from time to time the drawings and specifications and as from the dates specified by him stores to be supplied shall be in accordance with such altered drawings and specifications provided that if any such alterations involve increase or decrease in the cost of or in the period required for production, a revision of the contract price and/or the period prescribed for delivery shall be made by mutual agreement in respect of the stores to which the alteration applies. In all other respects, the contract shall remain unaltered.

7. SAMPLES

- 7.1 Samples submitted for any reason shall be supplied without charge and freight paid without any obligation of the Purchaser as regards safe custody or safe-return thereof. All samples submitted must be clearly labelled with the Contractor's name and address and tender number. If the Contractor submits the sample with his tender the same shall not govern the standard of supply except when it has been specifically stated in the Purchase Order that it is accepted instead of any sealed pattern. Should certified samples be lent to the Contractor by the Purchaser, the Contractor is responsible for the return in perfect order of all certified samples with the labels intact.

8. PACKING

- 8.1 The contractor shall be held responsible for the stores being sufficiently and properly packed for transport by rail, road, sea or air so as to ensure their being free from any loss or damages on arrival at their destination. The packing and marking of packages shall be done by and at the expenses of the Contractor. Each package shall contain a Packing

Note quoting Purchase Order number and date and showing its contents in detail.

- 8.2 Unless otherwise provided in the contract all containers (including packing cases, boxes, tins, drums and wrappings) in which the stores are supplied by the contractor shall be considered as property of the Purchaser and their cost as having been included in the contract price.

9. DELIVERY:

9.1 TIME FOR AND DATE OF DELIVERY, THE ESSENCE OF THE CONTRACT:

The time for and the date of delivery of the stores stipulated in the purchase order/contract shall be deemed to be of the essence of the contract and delivery must be completed not later than the date/dates stipulated.

9.2 EXTENSION OF DELIVERY SCHEDULE

- 9.2.1 If any delay in delivery shall have arisen from any cause such as strike, Lock-outs, fire, accidents, riot or the like which the purchaser may admit as reasonable ground for grant of extension of delivery schedule, the purchaser will allow such additional period for the purpose as he may consider necessary taking the circumstances into consideration.
- 9.2.2 If the contractor fails to deliver the stores or any instalment or part thereof within the period fixed for such delivery or such additional period allowed by the purchaser in accordance with foregoing paragraphs or any time before the expiry of such period repudiates the contract, the Purchaser may without prejudice to the rights of the purchaser.
- 9.2.3 Recover from the contractor as Liquidated Damages and not by way of penalty as detailed under clause No.02 given herein below for any stores which the contractor has failed to deliver within the period fixed for delivery in the contract or such additional period as mentioned in paragraph 9.2.1. during which the delivery of such stores, may be in arrears where delivery thereof is accepted after expiry of the aforesaid period. (For the purpose of computing the damages for delayed supplies under the clause, the cost of the entire plant/machinery/equipment/instrument will be taken into consideration if the plant/machinery/equipment/instrument cannot be put to the intended use for want of delayed portion of supply).
- 9.2.4 Purchase or authorise the purchase elsewhere without notice to the contractor, on account and at the risk of the contractor of the stores not so delivered or others of a similar description (where stores exactly complying with the contract specification are not in the opinion of the Purchaser, which opinion shall be final, readily procurable) without cancelling the contract in respect of the portion instrument not yet due of delivery, OR

- 9.2.5 Cancel the contract or portion thereof and if so desired purchase or authorise purchase of the stores not so delivered or others of a similar description (where stores exactly complying with the contract specification are not in the opinion of the Purchaser, which opinion shall be final, readily procurable) at the risk and cost of the contractor, if the contractor had defaulted in the performance of the original contract, the purchaser shall have the right to ignore his offer in response to risk purchase enquiry even though the lowest.
- 9.2.6 Where action is taken under sub-clause 9.2.4 or sub-clause 9.2.5 above the contractor shall be liable for any loss which the purchaser may sustain on that account provided that the repurchase, or if there is an agreement to repurchase then such agreement, is made within a reasonable period from the date of such failure, depending upon the nature / merit of the purchase and in case of repudiation of the contract before the expiry of the aforesaid period of delivery, shall not be entitled to any gain on such purchase and the manner and method of such purchase shall be in the entire discretion of the Purchaser. It shall not be necessary for the purchaser to serve a notice of such purchase on the contractor.

10. INSPECTION

- 10.1 The contractor shall be responsible for and perform all inspection and testing required in accordance with the contract/purchase order and specifications included herewith.
- 10.2 The Purchaser may at his option depute his representative for Inspection of the stores to be supplied under the contract or authorize and nominate a Quality Surveillance Agency of his choice for the purpose hereinafter called, in either case, the inspection.
- 10.3 The contractor shall give notice of readiness for inspection to the Inspector (deputed under clause 10.2 above) so that the Inspector can be present at the requisite time. In such an event delivery shall not be effected until an authorization or shipping release is obtained from the Purchaser's Inspector.
- 10.4 The contractor shall allow reasonable facility and free access to his work/factory and records to the inspector for the purpose of inspection or for ascertaining the progress of delivery under the contract.

11. RECTIFICATION AND REPLACEMENT OF DEFECTIVE STORES

- 11.1 If the inspector find that the contractor has executed any unsound or imperfect work, the inspector shall notify such defects to the contractor and the contractor on receiving the details of such defects or deficiency, shall at his own expenses, within seven days or otherwise within such time as may be mutually agreed upon as reasonably necessary, proceed to alter, reconstruct or remanufacture the stores to the requisite standard and specifications as called for by the tender specification.

12. INSPECTION AND REJECTION

- 12.1 **Inspection and Rejection:** The stores shall be tendered by the Contractor for inspection at such places as may be specified by the Inspector, at the Contractor's own risk, expenses and costs and shall lie at such places of inspection at the risk of the Contractor and the stores will be subject to inspection and test as may be considered necessary by the inspector and his decision as regards rejection of goods shall be final and binding on the Contractor. If any goods are rejected

as aforesaid, then without prejudice to the foregoing provision, the Purchaser shall be at liberty to

- 12.1.1 Allow the Contractor to re submit without prejudice to the Purchaser's right to claim and recover Liquidated damages as provided in clause 9.2.3 hereof, stores in replacement of those rejected within a time specified by the Purchaser (which time shall be essence of the contract), the contractor bearing the cost of freight for such replacement without being entitled to any extra payment, or
 - 12.1.2 Buy the quantity of stores rejected or others of a similar nature elsewhere at the risk and cost of the Contractor in accordance with the provisions contained in second paragraph of clause 9.2.4 thereof without effecting the Contractor's liability as regards the supply of any further consignments due under the Contract, or
 - 12.1.3 Terminate the Contract and recover from the Contractor the loss Purchaser thereby incurred
- 12.2 **Removal of rejection:** Any stores submitted for inspection and rejected by the Inspector must be removed by the Contractor within fourteen days from the date of receipt of intimation of rejection, provided that in the case of dangerous infected or perishable stores, the Inspector (whose decision shall be final) shall notify the Contractor to remove such stores within 48 hours of receipt of intimation of rejection and it shall be the duty of the Contractor to remove them accordingly. Such rejected stores shall lie at the Contractor's risk from the time of such rejection and if not removed within the aforementioned time, the Purchaser shall have the right either to return the rejected stores to the Contractor at the Contractor's risk by such mode of transport as Purchaser may select or to dispose off or segregate such stores as he thinks fit at the Contractor's risk and on his accounts and to appropriate such portion of the proceeds as may be necessary to cover any loss or expenses incurred by the Purchaser in connection with the said sale. Freight to destination of stores rejected after examination at destination shall be recoverable from the Contractor at the Tariff Rate.
- 12.3 **Test Certificate and Guarantees:** Test Certificate Guarantees, if required by the Inspector shall be obtained and furnished by the Contractor free of costs.

13. RECOVERY OF SUMS DUE

- 13.1 Whenever any claim for payment of, whether liquidated or not, moneys arises out of or under this contract against the Contractor the Purchaser shall be entitled to recover sum by appropriating, in part or whole, by encashing the Bank Guarantee submitted towards Security deposit by the Contractor, if a Security Deposit is taken against the Contract. In the event of the security being insufficient or no Security Deposit has been taken from the Contractor then the balance or the total sum or which at any time hereafter 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.

- 13.2 All demurrage, wharfage and allied expenses incurred by the Purchaser, if any, due to delayed clearance of Stores in view of non receipt, incomplete or delayed receipt of documents by the Purchaser, shall be recovered from the payment due to the Contractor.

14. BAR/PERT CHART

- 14.1 The contractor at the discretion of the Purchaser shall submit the BAR/PERT chart indicating various activities from the date of purchase order to handing over of the stores.

15. PERFORMANCE BANK GUARANTEE

- 15.1 In the event of acceptance of the offer in respect of plant, machinery, equipment, instrument, etc. the tenderer will be required to submit a performance bank guarantee for 10% of the total value of the stores inclusive of all statutory levies and other charges admitted in the contract, from SBI/any nationalized bank or private sector banks, namely, ICICI Bank, IDBI Bank, HDFC Bank and AXIS Bank, on a non-judicial stamp paper of appropriate value valid till 2 months beyond the expiry date of warranty period as per the Purchaser's format towards satisfactory performance of the plant, machinery, equipment, instrument, etc. during the warranty period. In case of bids in currency other than INR performance bank guarantee shall be furnished from any bank of international repute.
- 15.2 In case of non-submission of performance bank guarantee by the Contractor, an amount equivalent to 10% of the total value of the stores and other charges admitted in the contract will be retained by the purchaser till the expiry of the warranty period of the stores.
- 15.3 Offers of the tenders who are not agreeable to furnish performance bank guarantee or retaining of an equivalent amount by the purchaser as per clause No.15.1 and 15.2 above, are likely to be rejected.

16. PERMIT AND LICENCES

- 16.1 The contractor shall secure and pay all licenses and permit at his end which he may be required to comply with all laws ordinances and regulations of the public authorities in connection with the performance of his obligations under the contract. The contractor shall be responsible for all damages and shall indemnify and save the purchaser harmless from against all claims for damages and liability which may arise out of the failure of the contractors to secure and pay for any such licenses and permits or to comply fully which any and all applicable laws ordinances and regulations.

17. PATENTS & PATENT RIGHTS INDEMNIFICATION

- 17.1 The Contractor shall indemnify and keep indemnified the Purchaser from and against any and all claims, actions, costs, charges and expenses arising from or for infringement of patent rights, copy right or other protected rights, of any design plans, diagrams, drawings in respect of the stores supplied by the contractors or any of the manufacturing methods or process adopted by contractor for the stores supplied under the contract.
- 17.2 In the event of any claim being made or action being taken against the purchaser in respect of the matter referred to clause 17.1 above, the

contractor shall promptly be notified thereof and he shall at his own expense, conduct all negotiations for the settlement of the same and any litigation that may arise therefrom.

- 17.3 In the event of any designs, drawing, plans or diagrams or any manufacturing methods or process furnished by the contractor constituting infringement of patent or any other protected rights and use thereof is restrained, the contractor shall procure for Purchaser, at no cost to the latter, the rights to continue using the same or to the extent it is possible to replace the same so as to avoid such infringement and subject to approval by the Purchaser or modify them so that they become non-infringing, but such modifications shall otherwise be to the entire satisfaction of the Purchaser.
- 17.4 The provision of the clause remains effective and binding upon the Contractor even after the completion, expiration or termination of the contract.

18. LAW GOVERNING THE CONTRACT

- 18.1 This Contract shall be governed by the laws of India for the time being in force. The marking of all stores supplied must comply with the requirements of India Acts relating to Merchandise Marks and all the rules made under such Acts.

19. JURISDICTION

- 19.1 The Courts within the local limits (i.e. Gandhinagar) of whose jurisdiction the place from which the purchase order is issued is situation only shall, subject to Arbitration Clause, have jurisdiction to deal with and decide any matter out of this Purchase Order/Contract.

20. SETTLEMENT OF DISPUTES

- 20.1 The Purchaser and the Contractor shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
- 20.2 If the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.

21. ARBITRATION

- 21.1.1 In the event of any dispute or difference arising out or of in connection with any of the terms and conditions of the Purchase Order/Contract, the matter shall be referred to the Director, IPR for settlement. In case the parties to the Purchase Order are not in a position to settle the dispute mutually, the matter shall be referred to a Sole Arbitrator to be appointed in accordance with the Arbitration & Reconciliation Act, 1996 & Arbitration and Conciliation (Amendment) Act, 2015 as amended time to time.

22. LIQUIDATED DAMAGES

- 22.1 As per Standard Terms & conditions, the Purchaser reserves the right to levy the Liquidated Damages, for delay in supply beyond the contractual delivery date at the rate of half percent (0.5 percent) of the total Contract price (Basic price) for each calendar week of delay. The total liquidated damages shall not exceed five percent (5%) of the contract price (Basic price). Stores/Goods will be deemed to have been delivered only when all its component parts are also delivered. If certain components are not delivered in time, the Stores/Goods will be considered as delayed until such time as the missing parts are delivered.
- 22.2 Where the Contract entered into is a composite one with supply cum erection and installation/commissioning activities and the completion of erection and installation/commissioning is delayed irrespective of the fact that whether supply of material has been made within the original delivery period, the contract is to be considered as a whole and Liquidated Damages will be recovered on the total contract value.

23. EXERCISING THE RIGHTS AND POWERS OF THE PURCHASER

- 23.1 All the rights, discretions and powers of the Purchase under the contract shall be exercisable by and all notices on behalf of the Purchaser shall be given by the Purchase Officer and any reference to the opinion of the Purchaser in the terms and conditions contained in these General Conditions of all Contracts shall mean and be construed as reference to the opinion of any of the persons mentioned in this clause.

24. TRAINING

- 24.1 The successful tenderer shall, if required by the Purchaser, provide facilities for the practical training of Purchaser's engineering or technical personnel for their active association on the manufacturing process throughout the manufacturing period of the Contract/stores, number of such personnel to be mutually agreed upon. If demanded by the Purchaser, such training shall be conducted at Purchaser's site by the Contractor free of charge. The duration of training shall be mutually decided upon by the Purchaser and the Contractor.

25. RISK PURCHASE

- 25.1 In the event supplier fails to fulfill the contractual obligations as per the terms and conditions of the Contract, the Purchaser has an option of completing the Contract at the risk and expenses of the Contractor. While initiating risk purchase at the risk and expenses of the supplier, the Purchaser must satisfy himself that the supplier has failed to deliver and he has been given all the opportunities as per the Contract to execute the Contract and also adequate and proper notice. Wherever risk purchase is resorted to, the supplier is liable to pay the additional amount spent by the government, if any as compared to contracted amount. All the factors including the method of recovering such amount should also be considered while taking a decision to invoke the risk purchase.

26. LIEN IN RESPECT OF CLAIMS IN OTHER CONTRACTS

- 26.1 Any sum of money due and payable to the Contractor under any contract may be withheld or retained by way of lien by the purchaser or any other person or persons contracting through the Director, IPR

against any claim of the Purchaser or such other person or persons in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the Purchaser or with other such person or persons.

- 26.2 It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the Purchaser will be kept withheld or retained as such by purchaser till this claim arising out of in the same contract or any other contract is either mutually settled or determined by the arbitrator, and that the contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

SPECIAL CONDITIONS OF CONTRACT GOVERNING SUPPLIES OF PLANT AND MACHINERY

In addition to the General Conditions of Contract hereinbefore set out the following special conditions shall apply to contracts for the supply of Plant and Machinery and manufactured equipment. These Special Conditions where they differ from the General Conditions shall over-ride the later.

27. DEFINITION OF PLANT

- 27.1 The word "PLANT" wherever, appears in these "Special Conditions of Contract governing supplies of Plants and Machinery" shall mean all machinery, plants, equipment or parts thereof or what the Contractor agrees to supply under contract as specified in the Purchase Order.

28. MISTAKES IN DRAWING

- 28.1 The Contractor shall be responsible for and shall pay for an alterations of the works due to any discrepancies, errors or omissions in the drawings or other particulars supplied by him whether such drawings or particulars have been approved by the Purchaser or not.

29. RESPONSIBILITY FOR COMPLETENESS

- 29.1 All fittings or accessories which may not be specifically mentioned in the specification but for which are usual or necessary, are to be provided by the Contractor without extra charge and the plant must be complete in all respects.

30. REJECTION OF DEFECTIVE PLANT

- 30.1 If the completed plant or any portion thereof before it is finally accepted is found to be defective or fails to fulfill the requirements of the contract, the Purchaser shall give the Contractor notice setting forth with the details of such defects or failure and the contractor shall forthwith rectify the defective plant or alter the same to make comply with the requirement of the contract. Should the contractors fail to do so within a reasonable time the Purchaser may reject and replace at the cost of the Contractor, the whole or any portion of the Plant as the case may be, which is defective or fails to fulfill the requirement of the contract. Such replacement shall be carried out by the Purchaser within a

reasonable time and at reasonable price and where reasonably possible to the same specifications and under competitive conditions. The Contractor shall be liable to pay to the Purchaser the extra cost, if any, of such replacement delivered and or erected as provided for in the contract such extra cost being the difference between the price paid by the Purchaser under the provisions above mentioned for such replacement and the contract price for them. Contractor shall refund to Purchaser any sum paid by the Purchaser to the Contractor in respect of such defective plant.

31. INSPECTION AND FINAL TESTS

31.1 All tests necessary to ensure that the plant complies with the particulars and guarantees shall be carried out at such place or places as may be determined by the inspector. Should, however, it be necessary for the final tests as to performance or guarantees to be held over until the Plant is erected at site they shall be carried out within one month of completion of erection.

32. TRANSPORT AND RESPONSIBILITY FOR BREAKAGES EN-ROUTE

32.1 Unless otherwise specified the Purchaser will take delivery of the plant from the place named in the purchase order but the contractor will be responsible for any damage which may be caused to the Plant during transit to the site of erection thereof.

33. ERECTION AND COMMISSIONING

33.1 In all cases where contracts provide for supervision of erection and commissioning or for test at the Purchaser's premises the Purchaser except where otherwise specified, shall provide free of charge, such labour, materials, fuels, stores, apparatus and instruments as may be required from time to time and as may reasonably be demanded by the contractor to carryout efficiently such supervision of erection and commissioning and for the requisite test. In case of contracts requiring electricity for the completion of erection, commissioning and testing at site, such electricity shall be supplied free to the contractor.

33.2 Action by the Purchaser under the clause shall not relieve the contractor of his warranty obligations under the contract.

34. WARRANTY

34.1 The contractor warrants that stores to be supplied under the contract shall be free from all defects and faults in materials, workmanship and manufacture and shall be of the highest grade and consistent with the established and generally accepted standards for stores of the types under the contract in full conformity with the specifications, drawings or samples, if any and shall if operable, operate properly. This warranty shall expire (except in respect of complaints notified to the contractor prior to such date) twelve months from the date of acceptance of material.

34.2 For a period of twelve calendar months after the plant/machinery/equipment/instruments has been put into operation (or a suitable mutually agreed longer period to be reckoned from the date of last major shipment depending upon the nature of the plant/machinery/equipment/instrument) the Contractor shall be

responsible for any defects that may develop under conditions provided for the contract and under proper use, arising from the faulty materials, design or workmanship in the plant or from faulty erection of the plant by the Contractor, but otherwise and shall rectify such defects at his own cost when called upon to do so by the Purchaser who shall state in writing such defects.

- 34.3 If it becomes necessary for the Contractor to replace or renew any defective portions of the plant for purpose of rectification under this clause, the provisions of this clause shall apply to the portions of the plant so replaced or renewed under the expiration of six months from the date of such replacement or renewal or until the end of the above mentioned period of twelve months whichever may be the later. If any defects not rectified within reasonable time, the purchaser may proceed to get the work done at contractor's risk and expenses but without prejudice to any other rights which the Purchaser may have against the Contractor in respect of such defects as provided in clause 9.2.4 or 9.2.5.
- 34.4 All inspections adjustments, replacements or renewals carried out Contractor during the warranty period shall be subject to the same conditions as in the contract.
- 34.5 Contractor shall, spare parts of equipment before going out of production, give adequate advance notice to the purchaser so that the latter may order requirement of spares in one lot if so desires.
- 34.6 The contractor shall further guarantee that if spare parts go out of production, will make available blue prints, drawings of spare parts and specifications of material at no cost to the Purchaser, if and when required in connection with the equipment to enable Purchaser to fabricate or procure spare parts from other sources.
- 34.7 The provision of this clause shall remain effective and binding upon the Contractor even after the completion or expiration of the contract and till the plant/machinery/equipment supplied under the contract is in use by the Purchaser.

35. MODE OF PAYMENT

- 35.1 Unless otherwise agreed to in writing between the Purchaser and the Contractor, payment for the delivery of the material will be made as follows.

Within 30 days from the date of final acceptance and on receipt of Performance Bank guarantee for 10% of the contract value amount from SBI/nationalized banks or any one of the scheduled banks mentioned in the bracket (Axis Bank, HDFC Bank, ICICI Bank and IDBI Bank) valid through out the guarantee period mentioned in the contract/purchase order.

- 35.1.1 In case any of the vendors seek advance or progressive payment prior to delivery of the material, such requests can be considered only in exceptional cases of large value items, in which case the vendor will be required to furnish a bank guarantee for an equivalent amount of the advance/progressive payment sought for, valid till the execution of the contract. The bank guarantee shall be got executed as per the Purchaser's format from the State Bank of India (SBI)/nationalized

banks or any one of the scheduled banks mentioned in the bracket (Axis Bank, HDFC Bank, ICICI Bank and IDBI Bank).

- 35.1.2 Besides, the offers of the vendors seeking advance/progressive payment will be evaluated by loading 12% interest charges per annum on the amount of advance desired up to the delivery period quoted.
- 35.1.3 In case any of the vendors seek pro-rata payment for the stores to be supplied they should clearly mention in their offer the maximum number of installments of supply. However, such installment delivery and pro-rata payment will be considered only in respect of contract involving large value and sizeable quantity of the item and the maximum number of installments shall be normally restricted to four. Acceptance or otherwise of this condition is reserved by the purchaser.
- 35.1.4 **Bank Charges:** All bank charges to be borne by the Contractor/Supplier.
- 35.1.5 No correspondence will be entertained within 30 days from the date of receipt of material and bills, whichever is later.
- 35.1.6 **Interest for delay in supply beyond the contractual delivery date:** Wherever advance payments are sought for by the contractor and admitted in the contract, against Bank Guarantee for equivalent amount, in the event of any delay in supply beyond the contractual delivery date for reasons attributable to the contractor, interest charges @ 12% shall be levied for the period beyond the contractual delivery date, on the amount of balance advance payment to be adjusted.

36. DELAY IN ERECTION

- 36.1 Wherever erection of a plant or machinery is the responsibility of the Contractor as a term of the contract and in case the Contractor fails to carry out the erection as and when called upon as to do within the period specified by the Purchaser, the Purchaser shall have 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 may incur towards erection. The Contractor shall, however, not be entitled to any gain due to such an action by the Purchaser.

SECTION 'C'

**TECHNICAL SPECIFICATIONS
OF
STORES AND DRAWINGS**

Please refer tender document

SECTION 'D'

FORMAT FOR SUBMISSION OF PART-II (PRICE)

Please refer tender document

TENDER FORM
INSTITUTE FOR PLASMA RESEARCH
(An Aided Institute of
Department of Atomic Energy, Government of India)
Near Indira Bridge; Bhat; Gandhinagar-382428; India

Following terms are replaced in our Form No. IPR-LP-PT-02.V3 for Tender no. IPR/TN/PUR/TPT/19-20/31 dated 01/10/2019.

- 1) Sr.No.3.1 (Section-A) under heading “Earnest Money Deposit (EMD)” of Form No. IPR-LP-PT-02.V3 (Terms and Conditions) is replaced with the following: The Tenderer shall submit, as part of its bid, interest free Earnest Money Deposit (EMD) for an amount as specified in the Tender Notice. EMD shall be submitted by way of Demand Draft from **SBI/nationalized banks or any one of the scheduled banks mentioned in the bracket (Axis Bank, HDFC Bank, ICICI Bank and IDBI Bank)** issued in favour of **"Institute for Plasma Research"** and payable at **Ahmedabad. Tender received without EMD will be rejected at the discretion of IPR.**

(Copy of Demand Draft to be uploaded with the quotation, Original DD should be sent to IPR on or before the specified closing date and time)

- 2) Sr.No.3.4 (Section-A) under heading “Earnest Money Deposit (EMD)” of Form No. IPR-LP-PT-02.V3 (Terms and Conditions) is replaced with the following: **Exemption from payment of EMD:** The firms registered with DGS&D, NSIC, DPS or Micro & Small Enterprises (MSEs) which are actual producers/manufacturers of tendered items are exempted from payment of EMD provided valid registration certificate is uploaded along with the offer.

- 3) Sr.No.18 (Section-A) under heading “Statutory Levies such as Customs Duty, Goods and Service Tax” of Form No. IPR-LP-PT-02.V3 (Terms and Conditions) is replaced with the following: **Clause Nos.18.1, 18.2, 18.3, 18.5.2 and its sub-clauses deleted from Form No: IPR-LP-PT-02.V3.**

- 4) Sr.No.31 (Section-A) under heading “Delivery” of Form No. IPR-LP-PT-02.V3 (Terms and Conditions) is replaced with the following:

Delivery: All equipments/machinery/plant/component covered in this tender document should be supplied as per the **“Schedule of Delivery”** mentioned under clause no. 2.11 of Section-C of this tender document. The prices quoted by the tenderer should include all charges involved for direct and safe delivery of the items by Road to the project site of the Purchaser. If a tenderer so desires/separate lumpsum charges for transportation and safe delivery to Purchaser’s site could be furnished. Purchaser will neither undertake responsibility for transit insurance nor pay for it separately. No other, delivery term will be accepted by the Purchaser

- 5) Sr. No. 35 (Section-B) under heading Mode of Payment of “General Conditions of Contract” of Form No. IPR-LP-PT-02.V3 (Terms and Conditions) is replaced with the following:

Payment: Unless otherwise agreed to in writing between the Purchaser and the Contractor, payment for the delivery of the tendered items, will be made as follows.

- a) **80%** of basic price of Item sr.no. 1 & 3 of Price Bid + 100% of all other charges will be paid after receipt of material at IPR site, its verification by IPR representative and on receipt of invoice in triplicate.
- b) **Balance 20%** of Item sr.no. 1 & 3 of Price Bid and **100% of Item sr.no. 2 & 4 of Price Bid** shall be paid within 30 days from the date of acceptance, on submission of Performance Bank Guarantee for 10% of the order value from SBI/nationalized banks or any one of the scheduled banks mentioned in the bracket (Axis Bank, HDFC Bank, ICICI Bank and IDBI Bank) valid throughout the warranty period (**plus additional two months grace period**) and also on receipt of your final invoice.

Specification

For

Supply, fabrication, inspection, testing and Commissioning of the L.T. AC cubical pattern Circuit Breaker panel and Bus duct as per BOM, with all accessories.

SECTION-C

INFORMATION & AUXILIARY FACILITIES

1	Purchaser	Institute For Plasma Research, Village Bhat, Gandhinagar - 382 428, Gujarat, INDIA. Phone : (079)-23962000 Fax : (079)-23969017 Web: www.ipr.res.in
2	Site elevation (avg.)	55 meters above MSL
3	Ambient temperature	Max.(annual):47 °C; Min. (annual): 4 °C; Average (annual): 35 °C Design (max): 50°C, (min): 4°C
4	Relative humidity	Max. : 95%; Min. : 10%
5	Rainfall	823 mm average (annual) June-August
6	Wind data	Max. wind speed : 130 km/h Prevailing direction : SW to W Design wind pressure : 150 kgm ⁻²
7	Seismic data	0.08 g (as per latest guidelines)
8	Accessibility	by road : Up to site(on Hansol-Gandhinagar H-way) by rail : Ahmedabad Rly. Stn. (12 km.) by sea : Bombay Harbour (525 km.) by air : Ahmedabad Airport (6 km.)
9	Auxiliary power supply (each of the voltages can be made available at one point of connection to the sources)	415VAC & 230 V AC± 10% V

SPECIFICATION FOR L.T. CIRCUIT BREAKER PANELS

1.1 SCOPE:

The scope covers supply, fabrication, inspection and testing at contractor's work of **one number** of L.T. AC cubical patterns Circuit Breaker panel, with all accessories, as specified in this document and in the tender drawings.

1.2 CODES AND STANDARDS:

The design, materials, construction, manufacture, inspection, testing and performance of L.T. Breaker Panel shall comply with all currently applicable statutory regulation and safety codes in the locality where the equipment will be installed. The equipment shall also confirm to the latest applicable standards and codes of practice. Some of the reference standards are mentioned in this tender document.

1.3 DESIGN FEATURES:

- a) The L.T. Breaker panels are required for distributing power to various system and utilities.
- b) The breaker panel shall be suitable for use in rated voltage of 415V earthed electrical system having maximum system voltage of 415V \pm 10%.
- c) The design and construction of the panel shall be strong enough to take the load of breaker, bus bars, cables, relays instruments etc. and withstand rated maximum fault level and rigorous adverse weather conditions. Provision shall be made for expansion and contraction of enclosure due to temperature.
- d) The breaker, bus bars, cables etc. shall be suitable for continuous operation under site conditions indicated elsewhere with conductor temperature of 105 °C maximum. Also the conductor temperature during short circuit shall not exceed 250 °C. Bus bars shall be suitable for short time overloads.
- e) The panel shall be 100% insulated, which means there shall be no access to any live part. All joints shall be shrouded with special removable PVC blocks.
- f) The hinged door shall be designed to withstand internal arcing and shall be interlocked in such a way that it cannot be opened with the breaker in closed position. Further all operations shall be possible with door closed.
- g) Special insulating barrier shall be provided where bus bar passes from place to another to restrict arc from propagating, across the full length of the board in event of bus fault.
- h) Wiring circuits fed from a supply common to a number of feeder panels shall be protected so that failure of a circuit in any one feeder does not prevent operation of other feeders.
- i) Circuit of one feeder panel should be capable of isolation for maintenance purposes without affecting other circuits.
- j) Doors, covers and all non-current carrying metallic parts shall be earthed through flexible copper wires. This should also include instrument casing and cable armour, which should also be connected to the earth bus.

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- k) For safety, a spring-loaded scraping earth shall be provided on each withdrawable tray of drawout design circuit breaker panel ensures continuous earthing when trolley is withdrawn and having direct connection to the main earth bus.

1.4 CONSTRUCTIONAL FEATURES:

1.4.1 The Basic Cubicle:

- a) The basic enclosure shall be fabricated from Cold rolled sheet steel material, of thickness not less than 2 mm in all sides. For all the load bearing application sheet steel thickness shall not be less than 2 mm. Doors and covers shall be made of cold rolled sheet steel of thickness not less than 1.6 mm. Stiffeners shall be provided wherever required. The panel frames shall be fabricated using cold rolled sheet steel of thickness not less than 2.5 mm.
- b) The cubicle shall have four distinct compartments each separately earthed – Breaker compartment, Relay & Instrument chamber, Bus bar chamber, CT & Cable chamber.
- c) The doors and removable covers shall be provided with neoprene gaskets to make the panel dust and vermin proof.
- d) Any metal to metal joint anywhere inside the panel shall be gasketed to achieve zero gap. Between two panels special T type gasket shall be provided for zero gap and aesthetics.
- e) The panel board shall be complete with all internal wiring, bus-bars, labels, accessories etc. as specified.
- f) Labels shall be provided for all identifiable like breakers, relays, indicating lamps, control switches, selector switches and accessories etc.
- g) The panel door shall be opened only by means of tools to prevent unauthorized opening.
- h) Painting: Seven-tank process treatment shall be followed for treatment of the fabrication parts of the panel. Two coats of epoxy based primer shall be applied before applying two final coats of epoxy paint which shall have good weather resistance and heat transfer properties. Electrostatic epoxy powder coating shall be applied after pre-treatment. The colour of painting shall be RAL 7032.

1.4.2 The Breaker Compartment:

- a) The CB compartment shall receive the trolley in case of ACB, which houses the CB and PT. The trolley engagement to the enclosure is of horizontal isolating horizontal draw out type.
- b) The CB trolley shall have three distinct positions – Service, test and isolated. All three positions shall have latching facility and service and test positions have locking facility. These two positions shall have limit switch with auxiliary contacts for interlocking.
- c) In draw-out air circuit breaker, components of a feeder shall be mounted on withdrawable trolley. The trolley shall be provided with guides and low friction sliding devices. The trolley shall be provided with simple insertion and withdrawal device, which also locks the tray in fully inserted position.
- d) ACB's and MCCB's shall be arranged in multi-tier form if design permits looking at its size and thermal properties for better optimization of overall size of enclosure and of available space.

1.4.3 The Bus bar Chamber:

- a) The bus bar chamber on the top shall house the bus bars, which shall be accessed only by special tools.
- b) Bus bars shall be of Electrolytic Copper material and shall comply the requirements of IS: 8130. The bus bars should have rectangular section. The size of the bus bar should be clearly indicated in the quotation and the current density while calculating the size of the bus bars should be 1.6 A/sq.mm.
- c) The bus bars shall be supported by non-hygroscopic, anti-tracking high impact epoxy cast resin insulator. The support shall be rigid and suitable for all thermal and electro dynamic stresses arising out of short circuit current for 3 sec.
- d) Bus bars shall be designed for rated normal continuous current and fault level for one second **as specified in BOM**, without injurious heating.
- e) Bus bars in the switchgear may be provided with insulating sleeves OR insulating coatings. The sleeves or coating material shall comply with the following requirements:
 1. The insulating material shall safely withstand the hot-spot temperatures of the bus bars.
 2. The material shall be flame retardant in accordance with ANSI-C37.20.
 3. Thermal cycling tests should have been carried out (on representative samples of insulated bus bars) to prove that insulation will not flake off or deteriorate during the expected life of the switchgear which is 30 years. One cycle is from full – load temperature to no-load temperature. Expected numbers of cycles are 20,000.
 4. The thickness of insulation on the bus bars shall be sufficient to withstand 1.5 kV rms for one minute.
 5. Minimum phase to phase and phase to earth clearance shall be 25 mm.
 6. The material shall have low dielectric loss.
 7. It shall have good thermal conductivity to dissipate heat.
 8. If there is any de-rating of bus bars due to the above, the same shall be furnished.
- f) The bus bars and every tap off joints shall be colour coded.
- g) Silver plating of all bus bar joints shall be provided so that temperature rise of 55°C over 50 °C ambient temperature can be allowed as per ANSI C37.20

1.4.4 The CT and Cable Chamber:

- a) A spacious cable chamber at the rear of the panel shall be provided. It shall be suitable for receiving number of cables of different size. The cable Chamber shall be accessed through removable rear cover.
- b) The cable Chamber shall be designed for cable entry from top or bottom as mentioned in BOM.
- c) Sufficient distance between cable gland plate and terminal lug shall be provided for cable termination.
- d) For cable entry, a removable 2 mm MS gland plate shall be provided.
- e) Various Clearances shall be as per the standards and practices.

1.4.5 The Relay and Instrument Chamber:

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- a) Protective relays and indicating instruments shall be mounted on the door. Auxiliary relays should be projection mounted inside the cubicle.
- b) Control wiring shall be done using 650 V grade grey PVC stranded wire 1.5 sq.mm for control and 2.5 sq.mm for CT circuit.
- c) As a standard practice, all control cables shall be neatly bunched together with ferrules at either end of each wire. As per application colour ferrules shall be provided.
- d) The wire bunch shall be passed through PVC ducts.
- e) For safety and reliability, cable bunch shall be routed through flexible metallic conduit wherever it passes through HV compartments like breaker, PT chamber etc.
- f) Bus wiring shall be through grommets. Separate terminal stack shall be provided for inter-panel wiring.
- g) All wiring practices shall be as per IS-375.

1.5 AIR CIRCUIT BREAKER (ACB):

- a) Air Circuit Breakers shall fully conform to latest IS: 13947.
- b) ACBs shall be designed for circuit protection of 415 V, three phase four wire AC distribution system. They shall be designed for use in panel boards as main breakers and for protection of feeder circuits and connecting equipment.
- c) The ACB's shall be suitable for installation on multi-tier panel box.
- d) The terminals of the ACBs shall be designed to maintain adequate clearances and to accept Aluminium cables and busbars.
- e) ACBs shall be of draw-out type, electrically/motor operated and of ratings as per BOM. The fully draw out type compartments shall be provided.
- f) All ACBs shall be provided with integrated Microprocessor based trip releases for overload, short circuit and earth fault with multiple characteristic curves and adjustable setting for each characteristic to ensure proper co-ordination with upstream and downstream breakers.
- g) For all air circuit breakers, monitoring of close and trip circuit voltages, trip coil shall be provided.
- h) Each circuit breaker shall be provided with distinct SERVICE/TEST/ISOLATED positions.
- i) Potential free auxiliary contacts shall be provided for ACB's status indication (ON, OFF & TRIP) and remote operation (closing and opening).
- j) Motor for ACBs shall be rated at 230V AC.

1.6 MOLDED CASE CIRCUIT BREAKER (MCCB) :

- a) Molded Case Circuit Breakers shall fully conform to IS: 13947 part II.
- b) MCCB's shall be designed for circuit protection of 415 V, three phase four wire AC distribution system. They shall be designed for use in panel boards as main breakers and for protection of feeder circuits and connecting equipment.
- c) The terminals of the MCCB's shall be designed to maintain adequate clearances and to accept Aluminium cables.
- d) The insulating case and cover shall be made of high strength, heat resistant, flame retardant thermosetting material, providing a very high dielectric strength, high withstand capability against

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thermal and mechanical stresses, protection against secondary fire hazards and enhanced safety of operating personnel.

- e) All MCCB's shall be provided with integrated static trip releases for overload, short circuit and earth fault with multiple characteristic curves and adjustable setting for each characteristic to ensure proper co-ordination with overload, short circuit and earth fault protection provided on upstream and downstream (a) air circuit breakers and (b) MCCB shall be provided.

1.7 CURRENT TRANSFORMERS:

- a) Current transformers shall comply with IS: 2705.
- b) Construction of CT's shall be bar type, separately mounted type.
- c) CT's shall be provided with two (2) nos. of cores, one for metering and another one for protection. Each core shall carry its own secondary winding.
- d) Protection CT core are intended for Over load, Short circuit current and Earth fault protection.

1.8 POTENTIAL TRANSFORMERS:

- a) Potential transformers shall comply with IS:3156.
- b) PT's shall be of Magnetic type.
- c) PT's shall be single of core and should be used for both metering and protection.
- d) Protection is intended for under voltage protection.

1.9 PROTECTION, METERING AND INDICATION:

1.9.1 Protection & Control:

- a) Each Air circuit breaker (ACB) shall be provided with Microprocessor based releases for overload, short circuit and earth fault (LSIG Protection).
- b) Under-voltage release should be provided in all incoming feeders to monitor the availability of power supply in each bus of LT panels. When loss of supply is detected, designated feeders should be automatically disconnected using multiplied contacts of the Under-voltage release.
- c) Each downstream MCCB shall be provided with Static trip releases for overload, short circuit and earth fault protection (LSIG Protection).
- d) The relays should feature inherent high accuracy, high reliability and stable characteristics for both current and time setting functions.
- e) The relays should provide guaranteed performance in the specified operating conditions at specified ambient conditions without any need for specific ventilation or air conditioning.
- f) Adequate number of relay auxiliary contacts should be available for direct interface with breaker, monitoring and interlocking.

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- g) Auxiliary contacts associated with ACBs/ MCCBs /Relays for all above fault conditions or combined fault signal suitable for integrating with computer based supervisory control and data acquisition system (SCADA) shall be provided.
- h) All ACB incoming and outgoing feeder control signals ON, OFF and TRIP shall be available for remote operation.
- i) For all downstream MCCB outgoing feeders control switch shall be provided for local operation in panel itself.
- j) Flexible settings on protection relays and releases shall be provided as follows :
 - i) Over load setting: 0.4 to 1.0 times the rated current.
 - ii) Over load time delay: 3 to 40 sec.
 - iii) Short circuit pick up level setting: 1.5 to 14 times the rated current.
 - iii) Short circuit time delay: Inst., 30 to 300 msec.
 - iv) Earth fault settings: 0.2 to 0.8 times the rated current
 - v) Earth fault time delay: Inst., 100 to 300 msec.
 - vi) Under voltage settings: 0.35 to 1.1 of rated voltage.
 - vii) Under voltage time delay: Inst., to 0.5 sec.

1.9.2 Metering:

- a) As per BOM Incoming/Outgoing feeders shall be provided with Digital Multifunction Meter/Voltmeter/Ammeter. Ammeter range will be same as CT primary rating.
- b) All above meter shall be Panel mounting type and digital, 96 mm²size for all feeders.
- c) Protective fuses/MCBs of 4 A rating associated with voltage measurement and protection shall be provided.

1.9.3 Indication:

- a) A set of indicating lamps of reputed make like Siemens or Teknic showing breaker status (ON, OFF & TRIP) shall be provided with auxiliary contacts for remote monitoring.
- b) Visual indication within breaker panel for breaker Service/Test/Isolated position shall be provided for draw out ACBs.
- c) Protective fuses/MCBs of 4 A rating associated with all indicating lamps shall be provided.

1.10 ACCESSORIES:

All breaker panels shall be provided with following accessories -

- a) Motor-wound spring charged closing mechanism with motor suitable for 230V AC for ACB's
- b) Earth fault relay for all downstream MCCB outgoing feeders.
- c) U/V trip release suitable for 380V-400V AC for all incoming feeders.
- d) Closing release/coil suitable for 230 V AC for all ACBs.
- e) CTs of rating specified in BOM for all the feeders.
- f) PTs of rating specified in BOM for all incoming feeders.

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- g) Auxiliary contacts - 4 NO + 4 NC for ACB and 2 NO + 2 NC for MCCB.
- h) Door Operating Mechanism with handle for MCCBs

1.11 EARTHING:

- a) A copper earth bus of size not less than 35 x 6 mm² continuously runs at the bottom of the panel shall be provided.
- b) The earth bus shall be robust and capable of carrying full short circuit current for 1 sec.
- c) Doors, covers and all non-current carrying metallic parts shall be earthed through flexible copper wires. This should also include instrument casing and cable armour, which should also be connected to the earth bus.
- d) The earth bus shall have provisions for terminals at each end for connecting to grid earthing.

1.12 BILL OF MATERIAL

LTP#22

Panel	Load	Circuit Breaker	CT Ratio (A/A)	PT Ratio (V/V)	Meters (Digital)	Protection
<u>LT Panel#22</u>	Incomer	4 Pole ACB, 4000A, 65 kA Isc.	4000/5	415/110	MFM: 0 - 4000 A, 0 - 500 V, f, kW, KVA, PF	50, 51, 50N, 51N
	OG_F1:	3 Pole ACB, 1600A, 65 kA Isc.	1600/5		0 - 1600 A,	Overload, Short-Circuit and Earth Fault Protection
	O/G_F2:	3 Pole ACB, 800A, 65 kA Isc.	800/5		0 - 800 A	Overload, Short-Circuit and Earth Fault Protection
	O/G_F3:	3 Pole ACB, 800A, 65 kA Isc.	800/5		0 - 800 A	Overload, Short-Circuit and Earth Fault Protection
	O/G_F4:	3 Pole MCCB, 400A, 65 kA Isc.	400/5		0 - 400 A	Overload, Short-Circuit and Earth Fault Protection
	O/G_F5:	3 Pole MCCB, 400A, 65 kA Isc.	400/5		0 - 400 A	Overload, Short-Circuit and Earth Fault Protection
	O/G_F6:	3 Pole MCCB, 400A, 65 kA Isc.	400/5		0 - 400 A	Overload, Short-Circuit and Earth Fault Protection

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General Description: Indoor, Floor mounted, draw-out type 415 V circuit breaker panel suitable for use on 415V $\pm 10\%$ 3 ϕ 4 wire, 50 Hz System, fully conforming to the specifications and SLD, complete with main horizontal bus-bars of **4000 A, 65kA rating** and neutral of half the main bus rating with incoming feeder. Provision for top/bottom cable entry to be provided for incoming and outgoing feeders.

Accessories: 1 set of Lamps (Red, Green, Yellow) for CB ON/OFF/TRIP indication for each I/C and O/G Feeder; Shunt Trip Coil, Closing Coil for ACB; Auxiliary s/w 4 NO + 4 NC for ACB; Mechanical ON/OFF indicator and spring charge indicator; 1 no. space heater with s/w and thermostat for each vertical section; 1 no. cubicle lamp with s/w and fuse; independent DP s/w with HRC fuse/MCB for close and trip control supplies and DP s/w with HRC fuse/MCB for AC control Supply.

1.13 DRAWING:

Detailed Power and Control circuit drawing along with fabrication drawings showing breaker arrangement and the overall size of bus bars, enclosure, fixing details, support, joints, etc. shall be submitted for approval of purchaser. The purchaser's comments/modification suggested shall be incorporated. Actual fabrication of the Panels shall be carried out only after the approval of the purchaser.

1.14 TESTS:

All routine tests shall be conducted, as per relevant IS standard specified.

1.15 UNLOADING AND STORAGE:

VENDOR has to take the complete responsibility of the unloading of the L.T. Circuit Breaker Panel at proper location at the site. The accessories shall be unloaded and store at vendor's responsibility at the site. Vendor will be fully responsible for timely unloading of equipment and accessories. IPR will not bear any expenses for the delay in unloading the equipment in the scope of this specification.

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TECHNICAL SPECIFICATIONS FOR L.T. CIRCUIT BREAKER PANELS

Sr. No.	Parameters	Data	
1	General :		
	Type of L. T. Panel	Breaker	
	Application	For Distribution	
	Quantity	1 no.	
	Installation	Indoor	
	Type of panel mounting	Body mounted	
	Ambient temperature	as per Proj. Inf – I	
2	System Data :		
	Rated Voltage	415 V	
	Rated Frequency	50 Hz	
	No. of Phases	3 ph, 4 wire	
	Fault Level	As per BOM	
	Grounding	Effective	
3	Ratings :	ACB	MCCB
	Rated normal current	as per BOM	as per BOM
	No. of Poles	as per BOM	as per BOM
	Rated Voltage	415 V	415 V
	Rated Frequency	50 Hz	50 Hz
	Rated insulation voltage	1.1 kV	690 V
	Rated impulse voltage	8 kV	8 kV
	Rated short circuit breaking capacity	as per BOM	as per BOM
	Rated short circuit making capacity (peak)	2.5 times	2.5 times
	Type of Mounting	Drawout	Fixed
	Releases	Microprocessor	Static/Microprocessor
	Operating Mechanism	Motorised	Trip Free
	Operating time: Opening	≤70 ms	≤ 70 ms
	time	≤ 70 ms	≤ 70 ms
	Closing time		
	Method of operation	Local & Remote	Local
	Auxiliary supply Voltage	230V, AC	230VAC
4	Bus Bar :		
	Rated normal current	as per BOM	
	Rated voltage	415 V	
	Rated Frequency	50 Hz	
	No. of phases	TPN	
	Rated insulation test voltage	2.5 kV	
	Rated short circuit current	As per SLD	
	Rated peak short circuit current	2.5 times short ckt. Current	
	Max. rise in temperature above ambient	55 °C	
	Insulation	Heat shrinkable PVC sleeves	

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5	Terminal Connections :	as per BOM
	Incoming Feeders	By XLPE Cables
	Outgoing Feeders	By XLPE Cables
6	CT :	
	Type	Cast resin
	Ratio	as per BOM
	Accuracy Class :	
	a) Measuring core	1
	b) Protective core	5P
	Rated Burden :	
	a) Measuring core	10 VA
	b) Protective core	15 VA
	Accuracy limit factor :	
	a) Measuring core	1
	b) Protective core	10
	Short time current rating	of breaker rating with which it is associated as per BOM
	Rated insulation test voltage	2.5 kV
7	PT :	
	Type	Cast Resin
	Number of secondary	1 (One)
	Ratio	415 V / 110 V
	Accuracy class :	
	a) Measuring core	3
	Rated burden :	
	a) Measuring core	50 VA
	Voltage factor and rated time	1.2 continuous
	Rated insulation test voltage	2.5 kV
8	Accessories :	
	Under voltage relay	1) with Trip contacts required 2) Local /Remote
	Earth fault relay	1) with Trip contacts required 2) Local/Remote
	Shunt trip	1) with contacts required 2) Local/Remote
	Closing coil	1) with contacts required 2) Local/Remote
	Auxiliary contacts	4 NO + 4 NC – for ACB 2 NO + 2 NC – for MCCB
	Visual indicating lamp	ON, OFF & TRIP -230V 1ph AC
	Ammeters and Voltmeter	as per BOQ digital type
	Current Transducer and Voltage Transducer	4-20 mA
	Door lock	1) with contacts required 2) Local/Remote
	Safety Shutter	1 no. for each ACB

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	Space heater with s/w & thermostat	1 no. for each vertical section
9	Enclosure :	Cubical pattern, sheet steel, dust and vermin proof suitable for indoor installation with IP-52 degree of protection.
10	Clearances :	Various electrical clearances like phase to phase & phase to earth on poles, busbars, cable & busduct terminating boxes etc. shall be in accordance with applicable standards and Indian Electricity Rules.

2. SPECIFICATION FOR L. T. BUS DUCTS

2.1 SCOPE

This specification scope covers design, manufacture, inspection and testing at contractor's/his sub-contractor's works and installation and commissioning of one number of seven meter length of L.T. Bus Ducts as specified in this document for interconnection between indoor L.T. Switchgear & outdoor transformer.

2.2 CODES AND STANDARDS:

The design, material, construction, manufacture, inspection and testing of Bus Duct shall comply with all currently applicable statutes, regulations and safety codes in the locality where the equipment shall be installed. Indian Standard for L.T. Bus duct is IS-8623.

2.3 BILL OF MATERIAL:

Sr. No.	System	From	To	Rated Bus Duct Current	Approx. Length
no.				Amps	Meter
1.	Bus Duct	DT-13, Sec.	I/C-1, LTP- 21	4000	1 x 7

Bus Duct shall be designed in such a way to enable connection at the transformer end.

2.4 DESIGN FEATURES:

1. The bus ducts are required for supplying power from the distribution transformers to the breaker panels.
2. The bus ducts shall be suitable for use in 415V earthed electrical system having maximum system voltage of 415 V +10%.
3. The construction of the bus duct shall be strong enough to take the load of busbars and withstand rated maximum fault level and rigorous adverse weather condition. Provision shall be made for expansion and contraction of enclosure due to temperature.
4. The bus bars shall fully insulated for 1-min. power frequency withstands voltage and heat shrinkable sleeves shall be used for protection and insulation.

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5. The bus duct shall be suitable for continuous operation under site conditions indicated elsewhere with conductor temperature of 105 °C maximum. Also the conductor temperature during short time rating shall not exceed 250 °C. Bus duct shall be suitable for short time overloads.
6. The bus bar support shall be rigid for all thermal and electrodynamic stresses arising out of short circuit current for 3 sec.

2.5 CONSTRUCTION FEATURES:

2.5.1 Enclosure:

1. The bus duct enclosure shall be fabricated from (Cold Rolled Close Annealed) CRCA sheet steel material of gauge 14 SWG or better on a suitable angle iron framework.
2. The enclosure shall generally be of rectangular cross section. The size of the enclosure should be indicated clearly in the quotation.
3. The construction shall be dust and vermin proof and provision must be there to open any portion of the bus duct for inspection without disturbing the bus bars.
4. There should not be any through bolt in any section of the enclosure. Any joint of busbar enclosure should be provided with flange.
5. Where ever bus ducts pass through walls, the following provisions shall be made -
 - a) An opening shall be made for the required dimension in the **existing walls**, using an approved procedure.
 - b) A wall frame assembly should be provided together with all hardware required for fixing the bus duct to the wall.
 - c) A fire barrier should be provided to prevent the spread of fire/smoke through the bus duct enclosure.
 - d) The annular space between the bus duct enclosure & the wall opening should be properly sealed.
6. In order to take care of misalignments & tolerances in dimensions, Neoprene rubber bellows in the enclosure and flexible terminal interconnections should be provided at (a) the termination of the bus duct on the switchgear as well as (b) at the termination of the bus duct on the transformer.
7. Filter type drain plug shall be provided at low point along with run of bus duct to drain out automatically any moisture condensing within the enclosure.
8. Suitable Hot dip galvanized structural steel support shall be provided for the bus duct from ground level / wall bracket. The bidder should indicate clearly the details of support recommended by them.
9. Outdoor bus duct between Distribution transformer and associated switchgear up to the partition wall should have a degree of protection of at least IP 56. All other indoor bus ducts can have degree of protection of at least IP 52.
10. Painting : Painting of bus enclosure and supports shall be painted with 2 coats of epoxy base primer on which 2 coats of final epoxy paint of air craft grey shade as per IS:5 shade No. 631. Electrostatic epoxy powder coating is preferable.
11. Earth bus of 50 x 10 mm copper should be provided for entire length of the bus duct.

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The same should be painted with bituminous paints and shall be fixed on the outside of duct. Suitable copper links shall be provided at the joints of bus duct. Earth bus at the point of wall entry should have suitable arrangement as approved by the purchaser.

2.5.2 Bus Bars:

1. The conductor shall be Electrolytic Copper bus bar with the current density of 1.6A/sq.mm. It shall comply the requirement of IS: 8130.
2. The bus bar should have rectangular section. The size of bus bar should be clearly indicated in the quotation.
3. Bus bar insulation as in case of L.T. Circuit Breaker Panel shall also be applicable for Bus ducts.
4. The bus bar should be supported on non-hygroscopic, anti-tracking high impact epoxy cast resin insulator on every 500-mm interval. The support should be supported on single iron structure provided for enclosure.
5. Bus bars shall be thoroughly cleaned before carrying out any straight through joints, expansion joint or flexible joint. The joints shall be bolted such that the initial contact pressure remains substantially undiminished at all temperature up to rated full load temperature. Sprint washer shall be provided at every bolted joint. The joints shall have very low resistance.
6. All flexible joints shall be of copper only. The bidder should indicate clearly the contact pressure of the joints. Bidder along with tender shall furnish the details of joints.
7. Silver plating of all bus bar joints shall be provided so that temperature rise of 55 °C over 50 °C ambient temperature can be allowed as per ANSI C37.20.
8. All bends required for the complete run of the bus bars or bus duct shall be included in the length of the bus duct.
9. The following minimum clearance should be maintained throughout the length of the bus duct including joints and flexible expansion joints.
 - i) Phase to Phase : 25 mm
 - ii) Phase to Neutral : 25 mm
 - iii) Bus bar to enclosure : 35mm

2.6 DRAWING:

Detailed layout and fabrication drawings showing the sizes of bus bars, enclosure, fixing details, supports, bends, joints, wall entry assembly etc. shall be submitted by the successful bidder for approval of Purchaser. The bidder shall incorporate purchaser's comments/modification suggested. Actual fabrication of the bus duct shall be carried out only after the approval of the purchaser.

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2.7 TESTS:

1. Routine tests shall be conducted as per relevant IS standard specified.

TECHNICAL SPECIFICATION FOR BUS DUCTS

Sr. No.	Param	Data
1.	Application	Power Distribution
2.	Quantity	1 (one) no.
3.	Installation	Indoor
4.	Cooling	Air Natural
5.	Ambient conditions	As per Section - I
6.	No. of Phases	3 phase + neutral
7.	Method of grounding	Effective
8.	<u>Ratings :</u>	
	Rated normal continuous current	4000 A
	Rated Voltage & Frequency	415 V, 50 Hz
	Rated Insulation test voltage	2.5 kV (for 5 min.)
	Rated short circuit current	50 kA (for 1 sec.)
	Rated peak short circuit current	110 kA
9.	Max. conductor operating temperature at full rated current	105 °C
	Max. ambient temperature	50 °C
11.	Clearances	Various electrical clearances like phase to earth and phase to phase etc. shall be in accordance with applicable standards and Indian Electricity Rules.
12.	Enclosure :	Cubical pattern, sheet steel, dust and vermin proof suitable for indoor installation with IP-52 & 56 for outdoor installation degree of protection.

2.8 INSPECTION/TESTING

The vendor shall arrange all the testing facilities for below mentioned factory acceptance tests and inspection in the presence of IPR's representatives. The factory acceptance test reports shall be furnished to the purchaser for prior approval before dispatch of any equipment from the works and the approval in writing from the purchaser to affect the dispatch of the equipment. The test reports shall be submitted completed with identification data including serial number of equipment. The vendor should give at least two weeks advance notice of the date when the tests are to be carried out.

On L. T. Panels (on each panel):

Following Factory Acceptance Tests shall be carried out on the complete panel at factory:

- Physical inspection of LT Panel.
- Verification of BOM
- High Voltage Test at 2500 V for one minute.
- Insulation Resistance Test at 1000 V Megger.
- Continuity Test.

On Bus Ducts:

- High Voltage Test at 5000 V for one minute.
- Insulation Resistance Test at 1000 V Megger.

REFERENCE STANDARDS:

Sr. No.	Description	Standard No.
1.	L.T. Panels	IS - 8623
2.	ACB	IS - 13947 part 1 & 3
3.	MCCB	IS - 13947 part 2
4.	Current Transformer	IS - 2705
5.	Potential Transformer	IS - 3156
6.	Distribution Board	IS - 13032 / 8623
9.	Bus bars and bus bars connection	IS - 159
10.	Bus bar supporting insulators	IS - 2544

2.9 INSTALLATION AND COMMISSIONING

The vendor shall be responsible for the site mobilization to install and commissioning of the L.T Circuit Breaker Panel and bus duct.

Fixing the panel at the desired location in the IPR is in the scope of the Vendor. This includes grouting, fixing bolts; foundation bolts etc. along with supply of required hardware for fixing of L.T. Panels. The Vendor shall take the approval of the Engineer-in-charge before the commencement of the work.

All the installation tools and commissioning spares are to be provided by Vendor. This includes crane of suitable capacity, trailer, megger (5 kV) and any other instruments or tools required during the erection and commissioning.

The installation work should be carried out immediately after receipt of intimation from IPR in that regard.

During commissioning the successful Vendor has to perform all the required operational tests mentioned in the scope.

Following acceptance tests should be carried out at site:

- Physical inspection of LT Panel.
- Insulation Resistance Test at 1000 V Megger.
- Phase Sequence Test.
- Continuity Test.
- Interlocks and Operation test

2.10 DRAWINGS, OPERATION/INSTRUCTION MANUALS:

1. Drawing shall be submitted to IPR for approval within one month after placement of the purchase order and before commencing the manufacture and construction. The drawing and data to be submitted after Purchase Order should include the following:
 - a) Assembly drawing of the switchgear showing plan, elevation and typical sectional views and locations of breaker compartment, cable terminations, busbar chamber, metering and relay compartment and terminal blocks for external wiring connections. Marshalling panel GA drawing showing the layout of the terminal block and cabling etc.
 - b) Schematic diagrams for control and protection of circuit breakers.
 - c) Foundation plan showing location of foundation channels, anchor bolts and anchors, floor plans and openings for cables/bus ducts etc. Foundation plan showing location of foundation channels, anchor bolts and anchors, floor plans etc.
2. Along with the delivery of L.T. Circuit Breaker Panels and the Vendor shall supply operation/instruction manuals/catalogs for all the equipment, drawings of accessories and circuit diagram.
3. Three sets of final drawings shall be provided along with the delivery of the Panels.

SECTION-C

2.11 SCHEDULE OF DELIVERY

The following schedule has to be followed.

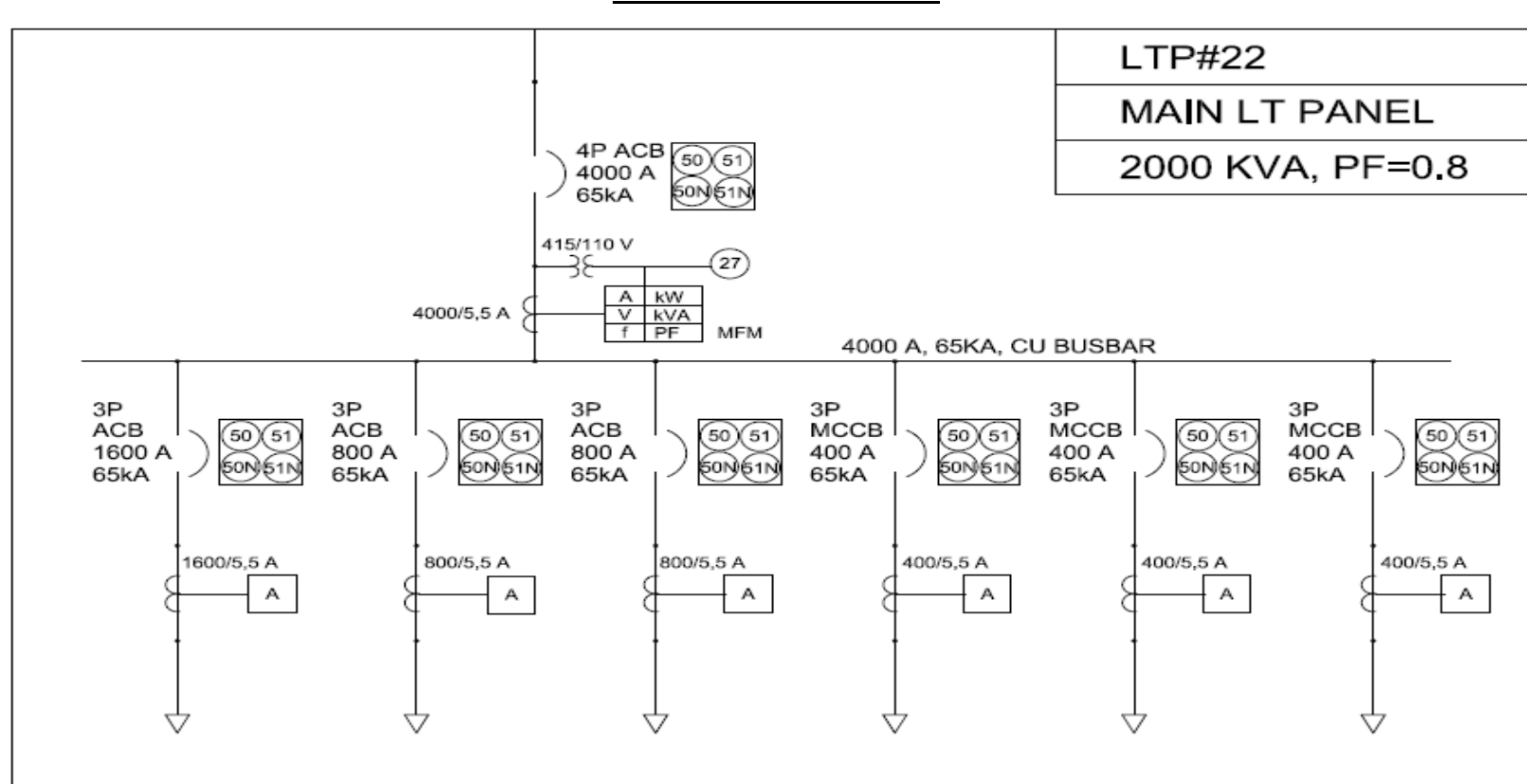
Sr.No.	Description	IPR Scope	Vendor's Scope	Time Schedule
1.	Issue of PO	✓		T_0 (in months)
2.	Submission of GA drawing, and QAP		✓	$T_1 = T_0 + 1$ months
3.	Approval of GA drawing, and QAP	✓		$T_2 = T_1 + 0.5$ month
3.	Manufacturing of LT Panel and Bus bar		✓	$T_3 = T_2 + 3$ months
4.	Factory Acceptance Test(FAT)	Witness	✓	$T_4 = T_3 + 0.5$ month
5.	Dispatch Clearance	✓		$T_5 = T_4 + 1$ month
6.	Delivery of LT Panel and Bus bar at site.		✓	$T_6 = T_5 + 1$ month
7.	Erection, Testing & commissioning of the above mentioned L.T. AC cubical pattern Circuit Breaker panel and LT Bus Duct at site		✓	$T_7 = T_6 + 3$ month

Important Notes :

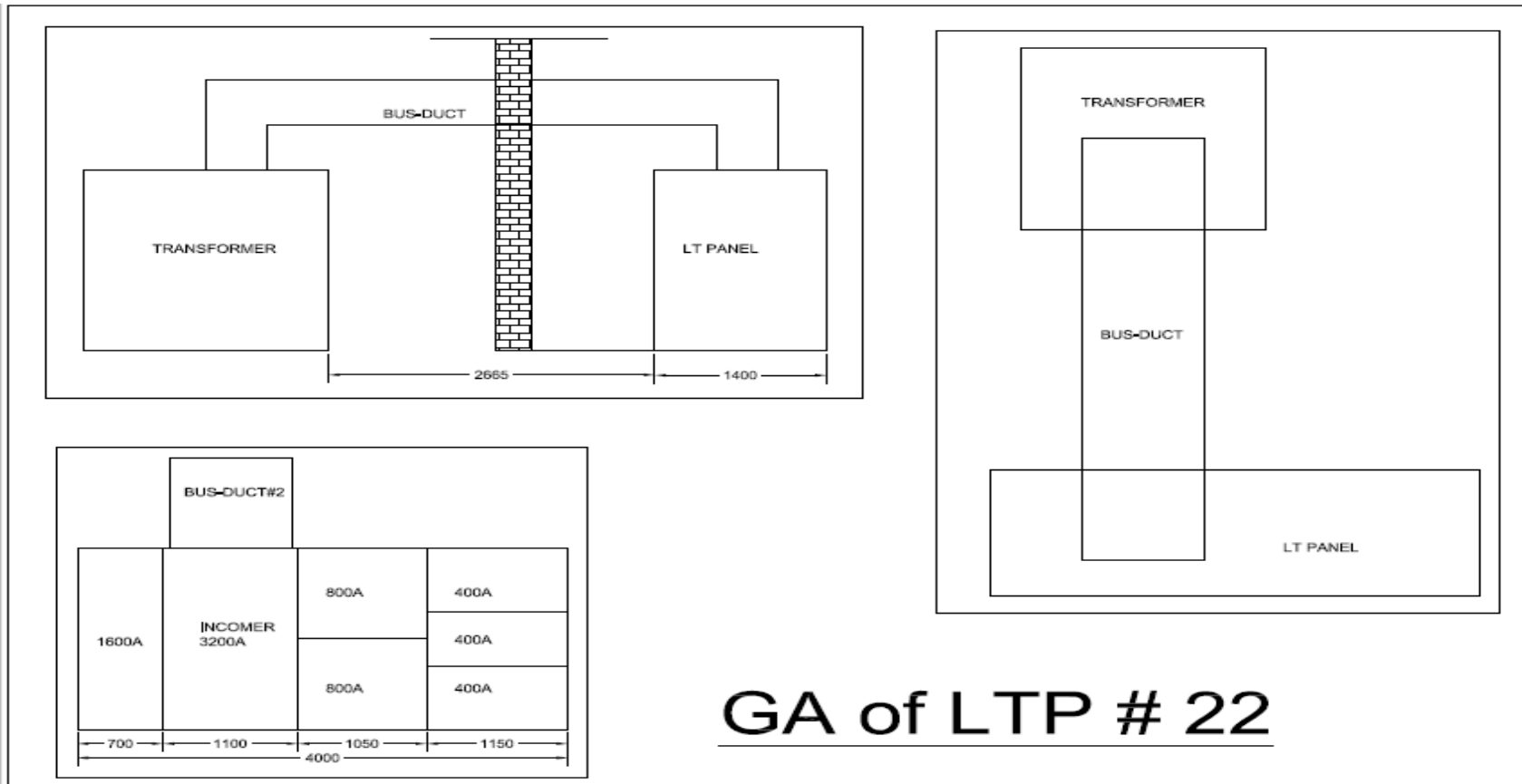
1. Bidders are requested to complete the technical particulars in the data sheets enclosed and submit them with their offer.
2. Bidders are also required to offer price details in the format enclosed.

SECTION-C

SINGLE LINE DIAGRAM



GA of LTP # 22



GA of LTP # 22

SECTION-C

A - TECHNICAL PARTICULARS TO BE SUBMITTED ALONGWITH THE TENDER

(Bidders are requested to complete the data sheets and submit the same with their bids)

L. T. CIRCUIT BREAKER PANELS

(Please fill the Data separately for individual type and size of breaker offered)

Sr. No.	Parameter Description	IPR Specifications	Data	
1.	<u>General :</u>			
	Name of the manufacturer	-		
	Manufacturer's type	-		
	Type of construction	Floor Mounted / Fixed Mounted		
	Suitable for indoor/outdoor application	Indoor		
	Design ambient temperature	max 47°C, average 35°C	°C	
	Meters (Voltmeter, Ammeter, MFM)	96x96 mm, Digital (Schneider/LT)	____ x ____mm	
	Indicating Lamps	LED type , 230 V AC Siemens, Teknic	Siemens/ Teknic / _____	
	Control wire size and make	1.5 sq. mm Cu; Finolex, Havells, Polycab etc	____sq. mm Cu / ____ Finolex/ Havells/ Polycab/ ____	
	Auxiliary Contactors/Push Buttons/TNC/Selector Switch	230 VAC L&T, Siemens, Schneider, ABB		
2.	<u>Breaker :</u>		<u>ACB</u>	<u>MCCB</u>
	Name of the Manufacturer	Schneider, L&T, ABB,		
	Number of Poles	As Per BOM		
	Rated Current	As Per BOM	A	A
	Rated Voltage	415 V		
	Frequency	50 Hz	Hz	Hz
	Rated insulation Voltage	1.0 kV(ACB) ≥690 V (MCCB)	V	V
	Rated impulse withstand Voltage	8 kV	kV	kV
	Power frequency withstand Voltage	2.5 kV	kV	kV
	Rated short time withstand current for 1 sec.	50 kA (ACB) / 35kA (MCCB)	kA	kA

SECTION-C

Sr. No.	Parameter Description	IPR Specifications		Data	
	Releases : Microprocessor / Static	Microprocessor (ACB) Static/Microprocessor (MCCB)			
	Operating Mechanism	Electrical Drawout type (ACB) Manual fixed type (MCCB) with Door Operating Mechanism			
	External protection relay provided If yes, List out indicating type, quantity, make, rating, settings etc.			YES / NO	YES / NO
				Enclose separate sheet	
	Protection available for <ul style="list-style-type: none"> • Overload • Short circuit • Earth Fault 	YES YES YES	YES YES YES		
	Whether following contacts for remote monitoring of breaker provided - <ul style="list-style-type: none"> • Breaker Status Indication and No. Of Contacts • Contacts for Breaker Releases Operation No. of Contacts • Breaker Remote Operation and No. of Contacts 	Yes	Yes	YES / NO	YES / NO
		Yes	Yes	YES / NO	YES / NO
		Yes	No	YES / NO	YES / NO
3.	<u>Bus bar :</u>				
	Material & Size	Copper, size as per current density 1.6A/ sq. mm			
	Rated continuous current	As per BOM			A
	Rated short circuit withstand current	As per BOM			kA
	Rated peak short circuit withstand current	105 kA			kA
	Temperature rise at rated current over design ambient temperature	55 °C			°C
	Insulation	Heat Shrinkable PVC Sleeves			
	Earth Bus: Material & size	35 x 6 sq. mm Copper			

SECTION-C

Sr. No.	Parameter Description	IPR Specifications	Data
4.	<u>Current Transformer :</u>		
	Make and type	AE / Kappa	
	Current ratio	As per BoM	A/A
	Insulation withstand level	2.5 kV	kV
	CT wiring	2.5 sq. mm Cu	
	CT terminals	Short link type	
5.	<u>Potential Transformer :</u>		
	Make and type	AE / Kappa	
	Voltage ratio	As per BoM	V/V
	Insulation withstand level	2.5 kV	kV
7.	<u>Enclosure :</u>		
	Suitable for indoor/outdoor application	Indoor	
	Thickness of sheet steel	2mm	mm
	Sheet metal cold rolled/hot rolled	CRCA	
	Degree of protection (as per IS:2147)	IP 52	
	Colour of finish paint : a) Outside b) Inside	RAL 7032	

PART-II**PRICE BID FORMAT*****(Bidders are requested to offer their price bid in the following format ONLY)***

Sr. No.	Description	Qty	HSN Code	Currency (INR only)	Unit Rate	Packing & Forwarding	Applicable GST	Unit Rate (Incl. P&F and GST)	Total Amount
		(a)	(b)	(c)	(d)	(e)	(f)	(g)= d+e+f	(h) = a x g
1.	Fabrication, inspection, testing and supply of L.T. AC cubical patterns Circuit Breaker Panel as per BOM with all accessories and as per the specifications mentioned in the tender document.	1 No.		INR	-	-	-	-	-
2.	Erection, testing and commissioning of L.T. AC cubical patterns Circuit Breaker Panel as per BOM with all accessories i.e. Item sr.no. 1 above (including unloading, shifting and handling with accessories) as per the specifications mentioned in the tender document.	1 Job.		INR					

Section-D

3.	Supply of LT Bus Duct/Bus-Bar Trunking System with complete accessories as per the specifications mentioned in the tender document.	7 Mtrs.		INR					
4.	Erection, integration, testing and commissioning of LT Bus Duct/Bus-Bar Trunking System with complete accessories i.e. Item sr.no. 3 above (including unloading, shifting and handling with accessories) as per the specifications mentioned in the tender document.	1 Job		INR					
5.	Other charges, if any			INR					
									Total Rs.
									Freight Rs.
									Insurance Rs.
									Grand Total Rs.

(Rupees _____ only)

Section-D

Description	Vendor Terms
Delivery terms	
Warranty	
Payment	
Delivery schedule	
Validity	
Any other terms	

IMPORTANT NOTE

[1] Custom Duty Exemption certificate will not be issued to any bidder under any circumstances.

[2] Quotation should be submitted in Indian Rupees (INR) only.

Place:

Date :

Signature of Bidder with seal