

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 16-4-2019

TENDER NOTICE DATED 16-4-2019

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 (रु.)	ईएमडी (रु.)
				निविदा जमा करने की तारीख	निविदा खोलने की तारीख		
1.	IPR/TN/PUR /TPT/19-20/2 (TWO PART TENDER)	Design/Engineering, manufacture, inspection and testing at vendor's works and delivery at IPR site and supervision during erection, pre-commissioning and commissioning tests of 2MVA, 11/0.433kV Oil Filled, naturally cooled, 3 phase Distribution Transformer along with fitting & accessories	2 Nos.	12-6-2019 by 1.00 p.m.	12-6-2019 at 3.30 p.m.	300.00	94000.00

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 **31-5-2019**.

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, फ़ैक्स: 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/19-20/2
DATED 16/04/2019
(TWO PART)

For Design/Engineering, manufacture, inspection and testing at vendor's works and delivery at IPR site and supervision during erection, pre-commissioning and commissioning tests of 2MVA, 11/0.433kV Oil Filled, naturally cooled, 3 phase Distribution Transformer along with fitting & accessories – 2 Nos.

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 31-5-2019.
4. While requesting for Tender Documents, such request shall indicate **the "REQUEST FOR TENDER DOCUMENTS AGAINST TENDER NOTICE NO. IPR/TN/PUR/TPT/19-20/2 DATED 16/4/2019".**
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 12th June, 2019. Part-I (Technical Bid along with Tender Fee of Rs.300/-, commercial terms and conditions and EMD for Rs.94,000/-) received upto 1.00 p.m. on 12-6-2019 will be opened on the same day at 3.30 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.	The bidder must be an OEM (Original Equipment Manufacturer) and must have BIS certification for manufacturing outdoor transformer of 2 MVA or above.	The bidder must provide company profile for the distribution transformer in compliance to IS 1180(2014) for level -2 transformers.	
2.	The bidder should have supplied transformers aggregating to at least 10 MVA for the voltage class of 11 to 33 kV and ratings of 1 to 2 MVA ONAN per annum for any two years in the last (3) years. 2015-16, 2016-17 and 2017-18	Copy of purchase orders (unpriced) along with technical details, stamped approved drawings and completion certificate should be submitted as proof.	
3.	The Bidder should have an average annual turnover of Rs.117 lakhs or above during last 3 financial years (i.e. 2015-16, 2016-17, 2017-18)	Audited balance sheet and Profit & Loss Account for the past 3 financial years (i.e. 2015-16 to 2017-18) 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/18-19/xx dated 09/04/2019.

- 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 by this tender document should be supplied within 3 months from the date of approval of drawings. 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. 34 (Section-B) under heading Warranty of “General Conditions of Contract” of Form No. IPR-LP-PT-02.V3 (Terms and Conditions) is replaced with the following:

a) **Warranty/Guarantee:** Two years guarantee from the date of acceptance against all sorts of manufacturing defects, faulty material and poor workmanship.

6) 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 + 100% of all other charges will be paid after receipt of material at IPR site and its verification by IPR representative and on receipt of proforma invoice in triplicate.

b) Balance 20% will be paid within 30 days from the date of acceptance and on receipt 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 and on receipt of final invoice.

INSTITUTE FOR PLASMA RESEARCH

**Technical Specifications
for
Design/engineering, manufacture,
inspection, testing at vendor's site,
delivery at site of of two (2) nos. of oil
filled, naturally cooled 3 phase
11kV/433V distribution transformer with
required accessories**

I - PROJECT INFORMATION & AUXILIARY FACILITIES

1.	Purchaser	Institute for Plasma Research Village Bhat, Gandhinagar Dt. PIN-382 428 Gujarat, INDIA Phone: +91-79-23962000 Fax: +91-79-23969017 Web: www.ipr.res.in
2.	Site elevation (average)	55 meters above MSL
3.	Ambient temperature	Max. (annual): 47 °C Min. (annual): 4°C Average (annual): 35 °C
4.	Relative humidity	Max.: 90 % Min.: 17 %
5.	Rainfall	823 mm average (annual) June-August
6.	Wind data	Max. wind speed: 130 kmph Prevailing direction: SW to W Design wind pressure: 100 kgm ⁻²
7.	Seismic data	0.04 g as per IS:1893-1973
8.	Accessibility	By road: Upto site (on Hansol-Gandhinagar H-way) By rail : Ahmedabad Rly. Stn. (12 km.) By sea : Bombay Harbor (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)	a) AC 415 ± 10 % V, 3 phase, 50 ± 5 % Hz, 4 wire system b) DC 220 ± 20 % V, 2 wire, floating c) DC 48 ± 20 % V, 2 wire, floating
10.	Expected delivery period	Within 3 months from the date of approval of drawings

II - TECHNICAL PARTICULARS**1. SCOPE:**

- 1.1. This specification covers the design/engineering, manufacture, inspection and testing at vendor's works and delivery at site and supervision during erection, pre-commissioning and commissioning tests of two (2) nos. of oil filled, naturally cooled 3 phase 11kV/433V distribution transformer for outdoor use.
- 1.2. The offered equipment shall be complete with all components necessary for their effective and trouble free operation. Such components shall be deemed to be within the scope of bidder's supply irrespective of whether those are specifically brought out in this specification and / or the commercial order or not.
- 1.3. The transformer and accessories shall be designed to facilitate operation, inspection, maintenance and repairs. The design shall incorporate every precaution and provision for the safety of equipment as well as staff engaged in operation and maintenance of equipment.
- 1.4. All outdoor apparatus, including bushing insulators with their mountings, shall be designed so as to avoid any accumulation of water.

2. STANDARD RATINGS:

The standard rating shall be 3-phase, 2MVA, 11 kV / 0.433 kV distribution transformer.

3. CODES - STANDARDS:

The materials shall conform in all respects to the relevant Indian/International Standards, with latest amendments thereof unless otherwise specified herein. Some of them are listed below:

Indian Standard	Title
IS 2026	Specification for Power Transformers
IS 1180:2014	Outdoor type transformer upto and including 2.5MVA,33 kV
IS 335	Transformer oil
IS 10028 (Part 2 & 3)	Selection & Installation and maintenances of Transformer
IS 1271	Insulation Materials for Electrical machinery
IS 649	Testing for steel sheets and strips and magnetic circuits
IS 1886	Installation & Maintenance of Transformers
IS 2099 ;IS 3347 & IS 7421	Bushings
IS 2705	Current Transformers
IS 3639	Fittings and Accessories for Power Transformers
IS 6600	Loading of Oil Immersed Transformers

Indian Standard	Title
IS-5	Specification for colors for ready mixed paints
IS - 104	Ready mixed paint, brushing zinc chromate, priming
IS -4257	Dimensions for clamping arrangements for bushings
IS - 5484	Specification for Al Wire rods
IS - 9335	Specification for Insulating Kraft Paper
IS - 1576	Specification for Insulating Press Board
IS - 2362	Determination of water content in oil for porcelain bushing of transformer
IS - 6162	Paper covered aluminium conductor
IS - 6160	Rectangular Electrical conductor for electrical machines
IS - 6792	Determination of electrical strength of insulating oil
IS - 6262	Method of test for power factor and dielectric constant of electrical insulating liquids
IS - 6103	Testing of specific resistance of electrical insulating liquids
IS - 6162	Paper covered aluminium conductor

The transformer shall also conform to the latest revisions of Indian Electricity Act and Indian Electricity Rules and to the regulations of statutory authorities.

4. GENERAL CONSTRUCTIONAL FEATURES:

- a) All the materials used shall be of the best quality and of the class most suitable for working under the conditions specified and shall withstand the variations of temperature and atmospheric conditions without distortion or deterioration or the setting-up of undue stresses in any part and also without affecting the strength and suitability of the various parts for the work which they have to perform.
- b) Similar parts, particularly removable ones, shall be interchangeable.
- c) Pipes and pipe fittings, screws, studs, nuts and bolts used for external connections shall be as per the relevant standards. Steel nuts and bolts exposed to atmosphere shall be galvanized.
- d) Nuts, Bolts and pins used inside the transformer and tap changer shall be provided with lock washers or lock nuts.
- e) Exposed parts shall not leave pockets where water can collect. Internal design of transformer shall ensure that air is not trapped in any locations.
- f) Labels shall be provided for all identifiable accessories like relays, valves, CT, thermometer pockets, switches etc.

- g) All internal connections and fastenings shall be capable of operating under overloads and over excitations allowed as per specified standards, without injury.
- h) Painting: Inside of transformer tank, pipe-fitting, conservative tank, radiators etc. shall be cleaned by shot blasting and at least two coats of heat resistant, oil insoluble, insulating varnish painting shall be given. The steel surfaces exposed shall be thoroughly cleaned by approved process and two coats of epoxy based primer shall be applied before applying two final coats of epoxy based painting which shall have good weather resistance and heat transfer properties. The color of painting shall be Light Grey Shade 633 of IS-5.

5. ELECTRICAL AND PERFORMANCE REQUIREMENTS:

- a) The transformer shall operate without injurious heating at the rated kVA at any voltage within $\pm 10\%$ of the rated voltage of that particular tap. The frequency variation is within $\pm 5\%$.
- b) The transformer shall be capable of overloading as per IS:6600. The mechanical structure and clamping should be designed for the overload duty also, and detailed analysis to prove that the transformer design meets the requirement shall be submitted before manufacture of the transformers. The manufacturer should guarantee that no deterioration to insulation system or life results on account of such an overloading pattern.
- c) The maximum flux density at any part of the core and yokes at normal voltage and frequency shall be such that the flux density under over voltage condition as per 4(a) shall not exceed the maximum permissible value for the type of core and yokes materials used. In any case it shall not be greater than 1.55 Tesla under normal voltage & frequency at input and tap changer at rated tap position. Transformers shall operate below the knee point voltage of the saturation curve at 110% of rated voltage.
- d) The transformer shall be designed for its normal rating with only ONAN, Oil Natural, Air Natural Cooling. Suitable radiator banks to be used. During continuous loading, the winding and oil temperatures should not exceed specified values. No fans to be provided.
- e) Transformer, complete with bushings, Bus Ducts/bus-bars shall be designed and constructed to withstand without damage, the effect of external short circuit, as per specified standard. System fault levels on HV & LV sides, have been given in data-sheet.

- f) Transformer shall be designed and constructed to withstand forces generated under full short circuit conditions. Design calculations shall be submitted for Purchaser's approval after placement of purchase order.
- g) Calculations to demonstrate thermal capability of transformers to withstand short circuit forces shall be submitted.
- h) The neutral terminal and bushings are to be designed for the highest system voltage on LV side. Similar rated bushings to be used in neutral as well as in phases.
- i) Every care shall be taken to ensure that the design and manufacture of transformer shall be such as to reduce noise and vibrations to the level obtained in good modern practice.
- j) The transformer shall be designed with particular attention to the suppression of harmonic voltage, specially the third and fifth so as to eliminate wave form distortion and form any possibility of high frequency disturbance reaching such a magnitude as to cause interference with communication circuit.
- k) The transformer shall be designed to be suitable for parallel operation.

6. CORE:

- a) The magnetic circuit shall be constructed from high grade cold rolled non ageing grain oriented (CRGO) silicon steel laminations. Mitered joint shall preferably be used in the construction of the core.
- b) The laminations shall be free of all burrs. Each sheet shall have an insulating coating resistant to the action of hot oil.
- c) Core type construction is acceptable for this transformer.
- d) The insulation structure for the core to clamp plates shall be such as to withstand a voltage of 2000 V, for one minute.
- e) The finally assembled core with all the clamping structures should be free from deformation and shall not vibrate during operation.
- f) The core clamping structure shall be designed to minimize eddy current losses and bolts passing through core laminations shall not be used for any purpose. Epoxy coated fibre-glass tapes shall be used for clamping core laminations.
- g) All steel sections used for supporting the core shall be thoroughly shot-blasted after cutting, drilling and welding and shall be given a coating of varnish resistant to oil.

- h) The core shall be provided with lugs suitable for lifting the complete core and coil assembly.
- i) The core and coils assembly shall be so fixed in the tank so that shifting will not occur during transport or short circuit.
- j) The core material shall be of grade M4 or better.

7. INTERNAL EARTHING:

- a) All internal metal parts of the transformer, with the exception of individual laminations, core bolts and their individual clamping plates shall be earthed.
- b) The top clamping structures shall be connected to the tank by a copper strap.
- c) LV Neutral of the transformer will be earthed effectively.

8. WINDINGS:

- a) All the windings shall be subjected to a shrinking and seasoning process, so that no shrinkage occurs during service. Windings to be pre-compressed at required forces to prevent shrinkage during service and with stand short circuit forces
- b) Coils shall be supported at frequent intervals by means of press boards/ oil ducts insulation spaces locked from either side, to ensure proper oil circulation and permanently mounted in place. To ensure permanent tightness of winding assembly, the insulation spacers/press boards shall be dried and compressed at high pressure before use. These insulation spacers/ press board shall be of very good quality, so that further shrinkage is avoided.
- c) Insulation cylinder of good quality shall be placed between the windings.
- d) All threaded connections shall be locked. Leads from the winding to the terminals and bushings shall be rigidly supported to prevent injury from vibration.
- e) Winding connections shall be properly braced to withstand shocks during transport or short circuits. No sharp points to be left-over after brazing.
- f) Solid single permawood ring of high quality to be used for clamping the LV and HV windings. Clamping ring should have required electric and mechanical strength to withstand short circuit forces.
- g) High conductivity electrolytic quality copper shall be used for LV and HV windings. The conductors shall be transposed at sufficient intervals in order to minimize

eddy current losses and equalize the distribution of currents and temperature along the windings.

- h) The connected coil and core assembly shall be dried by vacuum / vapour phase process and shall be immediately impregnated with oil.
- i) Windings shall not contain sharp bends which may damage insulation or produce high dielectric stresses.
- j) Windings shall be carried out in an area separate from other plant activities to minimize deposition of dust on the winding.

9. OIL:

- a) Required oil quantity + 10 % spare quantity as per IS 335 shall be included in the scope of supply.
- b) Oil shall conform to latest IS-335.
- c) No inhibitors shall be used in the oil.
- d) The make of the oil shall be subjected to purchaser's approval. Mixing of oil from different manufacturer is not permitted for the first filling and 10% spare quantity.

10. TANKS:

- a) Tank shall be made from good, commercial grade, low carbon steel and shall be of welded construction.
- b) Tank shall be designed to permit lifting (by crane or jacks) of the complete transformer assembly filled with oil. Suitable lugs and bolts shall be provided for this purpose.
- c) Tank together with radiators, conservators, bushings and other fittings shall be designed to withstand without permanent distortion of the following conditions.
 - i. Full vacuum of 760 mm of Hg for filling with oil by vacuum.
 - ii. Internal gas pressure of 35 kg/cm² (5 PSI) with oil at operating level.
- d) Tank shall be provided with explosion vent with diaphragm which shall operate at a pressure below the test pressure for the tank and radiators. The device shall be rain proof after blowing.
- e) The materials used for gasket shall be NBR/cork neoprene or equivalent. Gasketed joints for tank, bushings and other bolted attachment shall be so designed that the gasket will not be exposed to the weather and gaskets are not

crushed. Spare gaskets shall be provided for all openings for use during commissioning.

- f) The transformer top shall be provided with a detachable cover with a bolted flanged gasket joint. The surface of the cover shall be suitably sloped so that it does not retain rain water.
- g) Tank cover shall be earthed at two separate places by providing two copper strips of adequate size between tank cover and tank.
- h) The clearance between all pipe work and live parts shall be more than the clearance for the phases to earth in air.

11. CONSERVATOR:

Conservator shall be provided with the following:

- i) filling plug
- ii) drain valve
- iii) bolted cover for cleaning
- iv) One no. of transparent weather proof dehydrating breather assemblies (with silica gel) connected to in parallel and mounted at 1400 mm from ground.
- v) one no. of pocket with thermometer for measuring top oil temperature
- vi) valve for shutting off oil to transformer
- vii) oil level sight glass

12. VALVES:

- a) Valves shall be of carbon steel or equivalent materials. Valves shall be designed for required pressure. They shall be opened by turning counter clockwise when facing the hand wheel.
- b) Every valve shall be provided with an indicator to show the open and close positions and shall be provided with facility for padlocking in both close and open positions.
- c) Packing used for valve spindle glands shall not contain graphite or any substance harmful for transformer oil.
- d) The following sizes of valves to be used.
 - i. Filter Valve
 - ii. Drain Valve - with plug/cover
 - iii. Stop Valve (tank to conservator)
 - iv. Radiator valve (for top & bottom)
 - v. Oil sampling valve (top, bottom & Middle) - 3 Nos.

- vi. Adequate number of air relief vents
- vii. Pipe outlets with flanged valves at top for applying vacuum.

13. UNDER-CARRIAGE:

- a) The under carriage of the transformer shall be provided with detachable steel plain wheels. Wheels shall be bi-directional type. For locking the transformer on foundation 4 Nos. foundation anchor bolt of required size to be provided. Other specification of wheels and foundation bolt shall be as per standard practice.
- b) Provision should exist for jacking the transformer (with jacking pads) and for hauling.

14. TEMPERATURE INDICATING DEVICES

One set of oil and winding temperature indicators of approved make shall be supplied. This set shall be fitted locally in a weather-proof marshalling box so as to be readable at a standing height from ground level.

14.1 Winding temperature indicator (WTI)

- a) Winding temperature indicator shall indicate the temperature of the hottest spot of the winding and shall have a load temperature characteristic approximating to that of the main winding. It shall incorporate normally open, electrically separate sets of potential free contacts which close at predetermined settings, one of which (the "Alarm" contact) shall be used to initiate an alarm and the other (the trip contact) to initiate the tripping of the associated circuit breaker.
- b) The temperature indicating device shall incorporate a dial and pointer indicator and a separate pointer to register the maximum temperature reached. Cover shall be equipped with a viewing aperture of adequate sizes fitted with a clear reinforced glass.
- c) Winding temperature indicator shall be activated by a current transformer, connected to a heater coil, which heats the oil in which the bulb or sensor of the indicator is immersed. The current transformer shall be mounted inside the main transformer tank.

14.2 Oil temperature indicator (OTI)

- a) Thermometer pocket and sensing element with dial type thermometer calibrated in degree Celsius. With a hand reset pointer to register the highest temperature attained, shall be provided for indicating transformer tank top oil temperature.
- b) The cover shall be equipped with a viewing aperture of adequate size fitted with clear reinforced glass. If the temperature-measuring device makes use of a

capillary tube, mechanical protection shall be provided for the tube and sharp bends shall be avoided.

- c) The oil temperature indicator shall be provided with electrically separate, potential free contacts for "Alarm" and Trip levels.

15. TRANSFORMER COOLING EQUIPMENT:

- a) Radiators of required no. and size shall be designed to withstand full vacuum and pressure conditions specified for the tank. They shall be so designed as to avoid pockets in which moisture may collect, to completely drain oil into the tank and to prevent formation of gas pockets when the tank is being filled.
- b) Radiators shall be of the detachable type with bolted and gasketed flanged connection. Shut of valve and blanking plate on transformer tank at each point of connection to be provided. Each radiator will have top air release plug, bottom drain plug of 19 mm. size. and lifting lugs. Top oil filling plugs of suitable size should be provided.
- c) Top and bottom shut off valve with locking arrangement and blanking plates on each radiator should be provided.

16. TAP CHANGER GEAR:

The tap changer shall be locally operable, off-circuit tap changer with – 6.25 % to +5 % with 1.25 % taps.

17. BUSHINGS:

- a) All porcelain used in Bushings shall be homogeneous, non-porous, uniformly glazed to brown color and free from blisters burns and other defects.
- b) Stresses due to expansion and contraction in any part of the bushing shall not lead to deterioration.
- c) Bushing shall meet the insulation level mentioned in data sheet of transformer.
- d) Bushings shall be provided with necessary clamp/connectors.
- e) Fitting made with steel/iron shall be galvanized.
- f) Transformer LV side bushings shall be terminated with a suitable flange arrangement to receive external bus-duct. Bus ducts are not included in the scope of the supply of the vendor.

- g) HV side bushings shall be air insulated, outdoor type with disconnecting facility suitable to receive 11 kV XLPE cables.

18. FITTINGS AND ACCESSORIES:

Transformer shall be provided with, but not restricted to following minimum fittings and accessories for satisfactory operation;

- a) Lifting lugs for lifting transformers and lifting lugs for transformer cover.
- b) Jacking pads at least 4 Nos.
- c) Terminal marking, rating name plate and valve schedule plate.
- d) Conservator for main tank.
- e) 150 mm. dial magnetic type oil level gauge with potential free alarm and trip contact.
- f) The Buchholz relay shall be as per the latest revision of IS 3637. The relay shall be fitted in the expansion pipe connecting the transformer tank to the conservator. The relay shall be provided with drain cock, air vent. The oil circuit through the relay shall not form a delivery path in parallel with any circulating oil pipe
- g) 150 mm dial type thermometer for top oil temperature with potential free alarm and trip contact, max. reading pointer and resetting device.
- h) 150 mm winding temperature indicator with alarm and trip contacts and with repeater dial for remote indicator. Remote indicator shall be suitable for 4-20 mA transducer input. Transducer required for this purpose should be supplied and installed in Marshalling Panel.
- i) Thermometer pockets to be provided on top of the tank.
- j) Explosion vent on top of the tank.
- k) Two copper earthing terminals.
- l) Dehydrating breather.
- m) Conservator oil level sight gauge with marking.
- n) Air release devices.

- o) LV neutral shall be brought down using 50 mm x 6 mm Cu flat supported on 1.1 kV grade porcelain bushings. Copper flat shall have provisions to receive two numbers of Purchaser's external grounding connections.
- p) Haulage lugs on each side of transformer.

19. INSTALLATION SUPERVISION:

The bidder shall depute a qualified engineer for supervision of installation, witnessing pre-commissioning and commissioning tests. The equipment shall be commissioned in the presence of the bidder's qualified engineer.

The bidder shall ensure that his personnel are present at site and supervise when the following activities are being carried out:

- a) Unloading of the distribution transformers at IPR, Gandhinagar site.
- b) Erection and installation of transformer and its accessories. Wiring of instruments up to marshaling panel.
- c) Grounding of neutral, tank, Bus duct, etc. including supply of all hardware and connectors.
- d) IR testing of transformer for HV-LV, HV-E & LV-E.
- e) Tap changer operation.
- f) Checking of all the protection systems.
- g) Pre-commissioning and commissioning tests on transformer.
- h) Transformer load test with customer loads (if made available on commissioning date).

20.ACCEPTANCE:

The acceptance of the transformer shall be given only after the transformer has been successfully installed and commissioned.

III - TESTING/INSPECTION

Purchaser and their authorized representatives will carry out stage-wise inspection. Bidder shall submit detailed QAP for approval after the placement of order. Following routine and type tests are included in the scope.

1.Routine Tests:

- 1.1. Routine test as per IS shall be conducted, on completed transformer assembly.
 - a) Measurement of Winding Resistance
 - b) Measurement of Voltage Ratio and check of Phase Displacement
 - c) Measurement of Short Circuit Impedance and load loss at 50 percent and 100 percent load
 - d) Measurement of no load loss and current
 - e) Measurement of insulation resistance
 - f) Induced overvoltage withstand test
 - g) Separate source voltage withstand test
 - h) Pressure test
 - i) Oil Leakage test
- 1.2. Checks on WTI, OTI, buchholz relay, wiring test, etc. on control wiring up to marshalling box.
- 1.3. Test reports of Transformer Oil. (Fresh oil only shall be used)

2.Type Tests

The bidder shall furnish copies of type test certificate for transformers of same ratings or above conducted as per IS 1180:2014 for the following tests along with the bid.

- 2.1. Impulse test: Impulse test and chopped wave test as per standard to be conducted on one transformer and on HV line terminals.
- 2.2. Temperature Rise Test: Heat run/temperature rise test to be conducted as per as per IS 1180:2014

3.Test Reports:

Five copies of test reports/QA documents shall be supplied along with the transformers.

IV- DOCUMENTATION

The bidder shall submit the documents at different stages as given below.

1. With Bid (Technical/Part-1)

- a) Detailed catalogue/datasheet and literature indicating technical specifications.
- b) The documents mentioned in the eligibility criteria.
- c) Duly Filled GTP as per the format given in this specification

2. After placement of purchase Order:

The following documents shall be submitted for IPR approval within 3 weeks of placement of order, before taking up fabrication.

- a) Detailed activity schedule for stage inspection of the manufacturer
- b) Detailed transformer drawings along with LV and HV termination box dimensions.
- c) Earth terminals, marshalling panel details and bill of material etc.
- d) Graph of core loss in watt/kg versus flux density (wb/sq.m) for the transformer core material.
- e) Continuous and short time over loading details.

3. On Completion:

Five (5) sets of bound manuals of final detailed drawings, control drawings (marshaling panel), test reports, technical catalogues, installation instructions, O&M instructions, guarantee certificate and compliance report etc. along with their soft copy.

V- DELIVERY PERIOD:

The bidder shall quote for minimum delivery period. In this regard, a detailed activity bar chart shall be submitted by bidder for manufacturing, testing at works, transportation and delivery at IPR.

Fabrication/manufacturing shall be started only after final approval of the submitted documents mentioned under Sr.No.2 above (After placement of Purchase Order) by IPR. Expected supply of the transformer shall be 3 months from the date of approval of drawings.

VI - GUARANTEE PERIOD:

The Transformers shall be guaranteed for a period of 2 (Two) years from the date of acceptance at IPR.

IV - Technical Specifications for Transformers

<u>1. General</u>	
Application:	For Distribution to Assorted Loads
Quantity:	2 (Two)
Installation:	Outdoor
Type:	Two winding
No. of Phases:	3 Phase
Rating: (continuous)	2.0 MVA
Cooling:	ONAN
Short time rating:	as per IS
<u>2. Ratings</u>	
Primary (HV):	11 KV
Secondary (LV):	433 V
Frequency:	50 Hz.
Short time rating:	as per IS
% impedance at 2MVA base	6.5%
Vector Group:	Dyn11
Direction of Power Flow:	HV to LV
Primary Connection:	Delta
Secondary Connection:	Yn11 (Star)
Maximum Losses	@ 50% loading = 5050W @100% loading = 15000 W
<u>3. System Data</u>	
System Voltage HV (Nominal):	11 KV, effectively grounded
System Voltage HV (Highest):	12 KV
System Voltage LV (Nominal):	433 V
System Voltage LV (Highest):	500 V
Fault Level HV:	250 MVA
Method of grounding 11 kV:	Solidly grounded
<u>4. Winding Insulation</u>	
HV:	Uniform
LV:	Uniform
<u>5. Transformer - Neutral</u>	
HV:	Not Applicable
LV:	Effectively earthed
<u>6. Winding Insulation Test Voltage +ve/-ve (1.2/50 μsec wave)</u>	
HV:	75 KV Peak
<u>7. Power Frequency withstand voltage (1 min.)</u>	
HV:	28 KV
LV:	3 KV
LV neutral:	3 KV
<u>8. Temperature rise</u>	

Max. air temperature:	50 °C
Max. daily average temperature:	40 °C
Max. yearly weighted average temp.:	35 °C
Max. hot spot temperature based on max. yearly weighted ambient temperature:	98 °C
<u>9. Tappings</u>	
Tapping on winding:	HV
Tap changer type:	Off-circuit
Tapping range:	- 6.25 % to + 5 %
Tapping Step:	1.25% each
<u>10. Terminal Bushings</u>	
Rated voltage class HV	12 KV
Rated voltage class LV	1.1 kV
Rated voltage class Neutral	1.1 kV
Current rating HV	200 A & suitable for 16 kA for 1 sec.
Current rating LV and Neutral	5000 A & suitable for 50 kA for 1 sec.
<u>10. a. Power frequency with stand voltage (1 min. dry)</u>	
HV:	28 KV
LV & LV neutral:	3 KV
Creepage:	25 mm/KV
Air-clearance:	As per standard
<u>10. b. Impulse voltage withstand voltage (1.2/50 μsec.)</u>	
HV:	75 kV
<u>11. Terminal Connections</u>	
HV:	By XLPE Cable
LV:	By Bus Ducts for all transformers
Neutral connection:	Copper Bus bar
<u>12. Miscellaneous</u>	
Buchholz relay	with Normally open (NO) contacts for alarm and Trip are required
Winding temperature indicator with 150 mm dial.	1) with Alarm and Trip contacts required 2) Local/Remote
Oil temperature indicator	150 mm dial type thermometer - (with A + T contacts)
Magnetic Oil gauge	Dial type (with A + T contacts)
	<u>Alarm and Trip contacts for the devices mentioned above should be rated for 2 A, 220 V DC.</u>
Mashalling box	Weather proof box with IP-55 degree of protection with lamp, receptacle and space heater with thermostat control

	and isolating switches.
Skids	To be provided.
Wheels	Plain bi-directional
Vacuum withstand capability: i. Main tank with bushings: ii. Radiators:	760 mm of Hg 760 mm of Hg
HV Terminals	The scope of supply is limited to the provision of suitable terminals to receive XLPE cables of specified size.
Clearances	Various electrical clearances like phase to earth and phase to phase clearances on the transformer, inside cable terminating boxes, disconnecting chambers, etc. shall be in accordance with applicable standards and Indian Electricity Rules.

PREFERRED MAKE OF COMPONENTS

S. No.	Description	Make
1.	Valves	Leader Engg., Jalandhar / Precision Engg., Nashik, GS Engineering & Viat Instrument
2.	Oil temperature indicator (OTI)	Accurate Controls / Perfect Controls / Precimeasure
3.	Winding temperature indicator (WTI)	-- do --
4.	Buchholz relay	ASPE, Italy / Alstom / ATVUS/ Viat Instrument
5.	Current transformers	Prayog / Pragati
6.	12 kV & 500 V bushings	BHEL / WS Ins. / Modern Ins. / Jayshree Ins./Baroda Bushing/Sampat Ceramics
7.	Transformer Oil	Apar / MRL / Castrol/Raj Petro
8.	MOG	Sukrut, Viat Instrument

TECHNICAL PARTICULARS TO BE SUBMITTED ALONGWITH THE TENDER***(Offer furnishing incomplete data may be summarily rejected)*****A. TRANSFORMER**

S. No.	Parameter Description	Data
1.	Name of the manufacturer:	
2.	Place of manufacture	
3.	Continuous maximum rating as per this specification	
4.	Normal ratio of transformer	
5.	Method of connection HV/LV	
6.	Maximum current density in Windings : 1. HV (A/sq mm) 2. LV (A/sq mm)	
7.	Maximum hot spot temperature ° C. (Ambient air temperature on which above is based) ° C.	
8.	Maximum temperature ° C (a) Maximum observable oil temperature (ambient air temperature on which above is based) (b) Maximum winding temperature at an ambient temperature of transformer:	
9.	No-load losses at rated voltage (watt)	
10.	Full load losses at 75 ° C (watt)	
11.	Total losses at 100% load (watt)	
12.	Total losses at 50% load (watt)	
13.	Efficiency at normal voltage : (i) Unity Power Factor (a) At 50% load (b) At 75% load (c) At full load (ii) 0.8 Power Factor (a) At 50% load (b) At 75% load (c) At full load	
14.	Regulation as percentage of normal voltage : (a) At unity power factor (b) At 0.8 power factor lagging	
15.	Type of transformers, CRGO/ amorphous type	

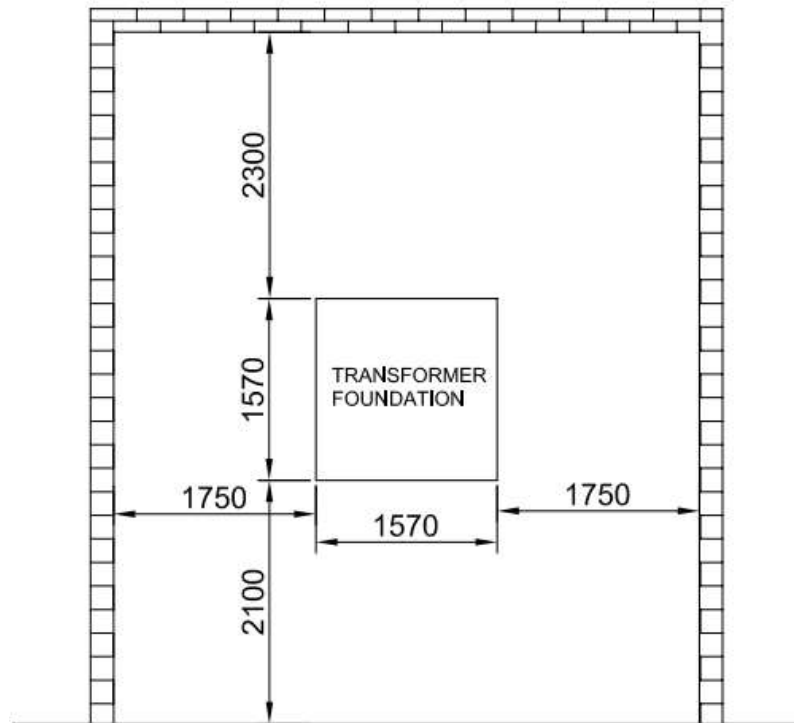
S. No.	Parameter Description	Data
16.	Type of Insulation used in HV Windings LV Windings	
17.	Type of insulation used in Core bolts Core bolt washers End plates Core lamination	
18.	Impulse withstand test voltage level (kV) HV Windings LV Windings	
19.	Characteristics of transformer oil	
20.	Total content of oil in liters winding:	
21.	Whether transformer will be transported with oil?	
20.	Type of transformer tank	
21.	Approximate overall dimensions a) Height mm b) Length mm c) Width mm Tank dimensions a) Diameter mm b) Height mm	
22.	Mass of insulated conductor HV (minimum) kg LV (minimum) kg	
23.	Mass of core (minimum) kg (CRGO or amorphous metal) at 100% rated voltage and frequency:	
24.	Mass of complete transformer arranged for transport (kg)	

B. TRANSFORMER MARSHALLING CONTROL PANEL

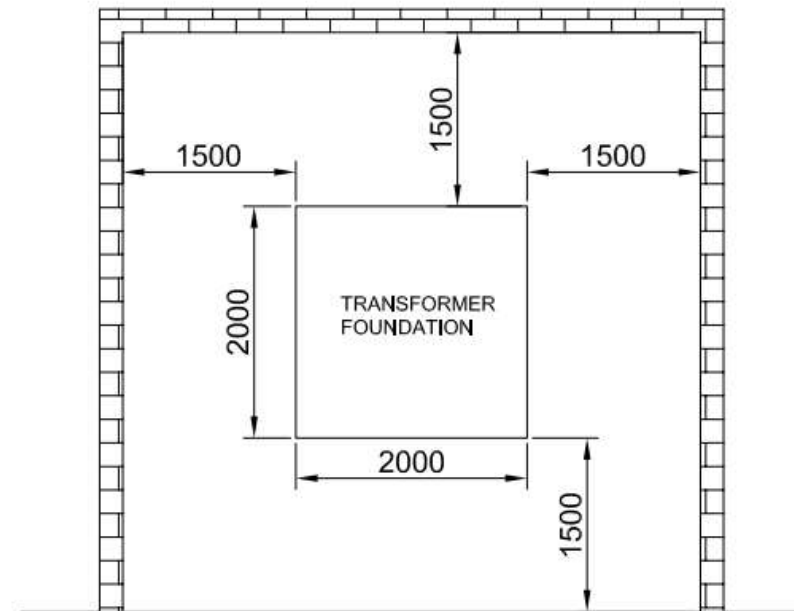
S.	Parameter Description	Data
1.	Manufacturer's name	
2.	Suitable for indoor/outdoor application:	
3.	Design ambient temperature:	°C
4.	Thickness of sheet steel:	mm
5.	Sheet metal cold rolled/hot rolled:	

6.	Degree of protection (as per IS: 2147):	
7.	Bill of material for the various equipment giving make, type, rating, etc. enclosed:	Yes / No
8.	Whether the panel body mounted/pedestal mounted:	
9.	Colour of finish paint: a) Outside: b) Inside:	
10.	i) Material and size of conductor: a) for various circuits: ii) Stranded conductor:	
11.	Terminal Blocks: 1. Make: 2. Current rating: a) Power terminals: b) Other terminals:	
12.	All tests specified will be carried out:	Yes / No
13.	Space heater ratings:	W

ANNEX -1 : Foundation details of the transformer



TRANSFORMER BAY AT UTILITY BUILDING



TRANSFORMER BAY AT AUXILIARY BUILDING

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

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.	Design, Manufacture, Inspection, Testing, Delivery of 2MVA, 11/0.433kV Oil Filled, naturally cooled, 3 phase Distribution Transformer along with fitting & accessories mentioned in the tender document (Including unloading, shifting, handling with accessories)	2 Nos.		INR	-	-	-	-	-
2.	Other charges, if any			INR					
								Total Rs.	
								Freight Rs.	
								Insurance Rs.	
								Grand Total Rs.	

Section-D

(Rupees _____ only)

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