

Annexure-II

OIL INDIA LIMITED
(A Government of India Enterprise)
P.O. Duliajan-786602, Assam, India
E-mail: material@oilindia.in

INVITATION FOR BID **LOCAL COMPETITIVE BID**

OIL INDIA LIMITED invites Local Competitive Bid (LCB) through its e-procurement portal <https://etender.srm.oilindia.in/irj/portal> for the following items:

TENDER NO	BID CLOSING/ OPENING DATE	ITEM & QTY
SSI8142P16 DT: 10.08.2015 (SINGLE STAGE TWO BID SYSTEM)	15.10.2015	POLYOL-300 MT
SSI8336P16 DT.28.08.2015 (SINGLE STAGE TWO BID SYSTEM)	15.10.2015	BITUMEN
SDI8304P16 DT. 26.08.2015 (SINGLE STAGE TWO BID SYSTEM)	01.10.2015	ERP DATA CENTRE HARDWARE UPGRADE
SDI8382P16 DTD. 29.08.2015 (SINGLE STAGE TWO BID SYSTEM)	15.10.2015	TRANSFORMER

Tender fee (Non-refundable): Rs 1,000.00; Bid Closing/Opening Time: **(11 Hrs.) IST/(14 Hrs.) IST**; Last date for submission of tender fee-**one week prior to bid closing date**. The complete bid documents and details for purchasing bid documents, participation in E-tenders are available on OIL's e-procurement portal <https://etender.srm.oilindia.in/irj/portal> as well as OIL's website www.oil-india.com.

NOTE: All addenda, Corrigenda, time extension etc. to the tenders will be hosted on above website and e- portal only and no separate notification shall be issued in the press. Bidders should regularly visit above website and e-portal to keep themselves updated.



OIL INDIA LIMITED
(A Government of India Enterprises)
PO : Duliajan – 786602
Assam (India)

TELEPHONE NO. (91-374) 2808719

FAX NO: (91-374) 2800533

Email: ranjanbarman@oilindia.in ; erp_mm@oilindia.in

FORWARDING LETTER

Tender No. : SDI8382P16 Dtd. 29.08.2015

Tender Fee : Rs 1,000.00

Bid Security Amount : 95,000.00

Bidding Type : SINGLE STAGE TWO BID SYSTEM

Bid Closing on : As mentioned in the e-portal

Bid Opening on : -do-

Performance Security : Applicable

Integrity Pact : Applicable

OIL invites Bids for **supply of Transformer 500KVA (Dry Type) (Qty. – 04 Nos.)** through its e-Procurement site under **SINGLE STAGE TWO BID SYSTEM**. The bidding documents and other terms and conditions are available at Booklet No. MM/LOCAL/E-01/2005 for E-Procurement LCB Tenders. The prescribed Bid Forms for submission of bids are available in the Technical RFx -> External Area -> Tender Documents

The general details of tender can be viewed by opening the RFx [Tender] under RFx and Auctions.. The details of items tendered can be **found in the Item Data and details uploaded under Technical RFX.**

The tender will be governed by:

- a) “General Terms & Conditions” for e-Procurement as per Booklet No. MM/LOCAL/E-01/2005 for E-Procurement LCB Tenders.
- b) Technical specifications and Quantity as per **Annexure – 1A**.
- c) The prescribed Bid Forms for submission of bids are available in the Technical RFx -> External Area -> Tender Documents.
- d) In the event of receipt of only a single offer against the tender within B.C. date, OIL reserves the right to extend the B.C. date as deemed fit by the Company. During the extended period, the bidders who have already submitted the bids on or before the original B.C. date, shall not be permitted to revise their quotation.
- e) All corrigenda, addenda, amendments, time extension, clarifications etc. To the tender will be hoisted on OIL’s website (www.oil-india.com) and in the e-portal (<https://etenders.srm.oilindia.in/irj/portal>) only and no separate notification shall be issued

in the press. Prospective bidders are requested to regularly visit the website and e-portal to keep themselves updated.

- f) Any sum of money due and payable to the contractor (including Security Deposit refundable to them) under this or any other contract may be appropriated by Oil India Limited and set-off against any claim of Oil India Limited (or such other person or persons contracting through Oil India Limited) for payment of sum of money arising out of this contract or under any other contract made by the contractor with Oil India Limited (or such other person or persons contracting through Oil India Limited).
- g) Bidder are advised to fill up the Technical bid check list (**Annexure EEE**) and Response sheet (**Annexure FFF**) given in MS excel format in Technical RFx -> External Area -> Tender Documents. The above filled up document to be uploaded in the **Technical RFX** Response.

Special Note:

1.0 General Qualification Criteria:

In addition to the general BRC/BEC, following criteria on Bidders' Experience and their financial capabilities shall be considered (**documentary evidence to be provided along with the bid in Technical RFx -> External Area -> Tender Documents**) as on the Bid Closing Date:

Criteria	Complied / Not Complied. Documentary evidence submitted / not submitted
a) Bidder should have experience of successfully executing single similar order -of Rs 28.58 Lakhs during last 3 years.	
b) Annual financial turnover of the firm in any of the last 3 financial years or current financial year should not be less than Rs 95.26 Lakhs .	

Note: Documentary evidence in respect of the above should be submitted in the form of copies of relevant Purchase Orders along with copies of any of the documents in respect of satisfactory execution of each of those Purchase Orders, such as – (i) Satisfactory Inspection Report (OR) (ii) Satisfactory Supply Completion / Installation Report (OR) (iii) Consignee Received Delivery Challans (OR) (iv) Central Excise Gate Pass / Tax , Invoices issued under relevant rules of Central Excise / VAT (OR) (v) any other documentary evidence that can substantiate the satisfactory execution of each of the purchase orders cited above. For Annual financial turnover enclose the audited Annual Reports or balance sheet certified by a chartered accountant.

2.0 Vendors having OIL's User ID & password shall purchase bid documents on-line through OIL's electronic Payment Gateway.

Vendors who do not have OIL's User ID & password shall obtain User ID & password through online vendor registration system in e-portal and can subsequently purchase bid documents through OIL's electronic Payment Gateway.

Alternatively application showing full address/email address with Tender Fee (Non-refundable) of Rs. 1,000.00 in favour of M/s Oil India Limited and payable at Duliajan is to be sent to Head-Materials, Oil India Limited, P.O. Duliajan, Assam-786602. Application shall be accepted only upto 08.09.2015 (or as amended in e-portal). The envelope containing the

application for participation should clearly indicate “REQUEST FOR ISSUE OF USER ID AND PASSWORD FOR E TENDER NO ...” for easy identification and timely issue of user ID and password. On receipt of requisite tender fee, USER_ID and initial PASSWORD will be communicated to the bidder (through e-mail) and will be allowed to participate in the tender through OIL’s e- Procurement portal. No physical tender documents will be provided. Details of NIT can be viewed using “Guest Login” provided in the e-Procurement portal. The link to e-Procurement portal has been also provided through OIL’s web site www.oil-india.com.

NOTE:

a) **Tender Fee may also be paid online upto one week prior to the bid closing date (or as amended in e-portal).**

b) PSUs and MSE units are provided tender documents Free of Cost (as per govt guidelines), however they have to apply to OIL's designated office to issue the tender documents before the last date of sale of tender document mentioned in the tender.

3.0 The tender is invited under SINGLE STAGE-TWO BID SYSTEM. The bidders are required to submit both the “TECHNO-COMMERCIAL UNPRICED BID” and “PRICED BID” through electronic format in the OIL’s e-Tender portal within the Bid Closing Date and Time stipulated in the e-Tender.

3.1 Please ensure that Technical Bid / all technical related documents related to the tender are uploaded in the Technical RFx Response-> User - > Technical Bid only. The “TECHNO-COMMERCIAL UNPRICED BID” shall contain all techno-commercial details except the prices. Please note that no price details should be uploaded in Technical RFx Response.

3.2 The “PRICE BID” must contain the price schedule and the bidder’s commercial terms and conditions. The prices of the items should be quoted in “Conditions Tab”. Details of prices as per Bid format / Commercial bid can be uploaded as Attachment under the attachment option under “Notes & Attachments”.

3.3 A screen shot in this regard is given below. Offer not complying with above submission procedure will be rejected as per Bid Rejection Criteria mentioned in Annexure-CCC.

Display RFx Response:

Edit | Print Preview | Technical RFx Response | Close | Withdraw

RFx Response Number	RFx Number	Status	Submitted
60006452	TEST2	Submitted	

RFx Owner: WIFRO_TEST1 Total Value: 0.00 INR RFx Response V:

RFx Information | Items | Notes and Attachments | Conditions

Basic Data | Questions

Event Parameters

Currency: Indian Rupee

Detailed Price Information: Price with Conditions

Terms of Payment: 9010 90% against despatch+10% after receipt

Service and Delivery

Incoterms

and Statistics

Created C

Created E

Last Processed C

Last Processed E

Partners and Delivery Information

Details | Send E-Mail | Call | Clear

Function	Number	Name	Valid from
The table does not contain any data			

Go to this Tab “Technical RFx Response” for Uploading “Techno-commercial Unpriced Bid”.

Go to this Tab “Notes and Attachments” for Uploading “Priced Bid” files.

On “EDIT” Mode- The following screen will appear. Bidders are advised to Upload “Techno-Commercial Unpriced Bid” and “Priced Bid” in the places as indicated above:

Note :

* The “Techno-Commercial Unpriced Bid” shall contain all techno-commercial details **except the prices.**

** The “Price bid” must contain the price schedule and the bidder’s commercial terms and conditions. For uploading Price Bid, first click on Sign Attachment, a browser window will open, select the file from the PC and click on Sign to sign the Sign. On Signing a new file with extension .SSIG will be created. Close that window. Next click on Add Attachment, a browser window will open, select the .SSIG signed file from the PC and name the file under Description, Assigned to General Data and click on OK to save the File.

4.0 Please note that all tender forms and supporting documents are to be submitted through OIL’s e-Procurement site only except following documents which are to be submitted manually in sealed envelope super scribed with **Tender no.** and **Due date** to **Head Materials, Materials Department, Oil India Limited, Duliajan - 786602, Assam** on or before the Bid Closing Date and Time mentioned in the Tender.

- a) **Original Bid Security**
- b) **Detailed Catalogue (if any)**
- c) **Any other document required to be submitted in original as per tender requirement**

All documents submitted in physical form should be signed on all pages by the authorised signatory of the bidder and to be submitted in triplicate.

5.0 Benefits to Micro & Small Enterprises (MSEs) as per prevailing Govt guidelines as applicable on B.C date shall be given. MSEs who are interested in availing the benefits will upload with their offer proof of their being MSE registered for the item tendered. The MSE are also required to upload scanned copies of relevant documents indicating details of registration alongwith validity, name of the registering organization and details of the item, ownership etc., failing which, their offer may not be liable for consideration of benefits to MSEs.

- 6.0 Bidders are requested to examine all instructions, forms, terms and specifications in the bid. Failure to furnish all information required as per the NIT or submission of offers not substantially responsive to the bid in every respect will be at the bidders risk and may result in rejection of its offer without seeking any clarifications.
- 7.0 Bidders must ensure that their bid is uploaded in the system before the tender closing date and time. Also, they must ensure that above documents which are to be submitted in a sealed envelope are also submitted at the above mentioned address before the bid closing date and time failing which the offer shall be rejected.
- 8.0 Bid must be submitted electronically only through OIL's e-procurement portal. Bid submitted in any other form will be rejected.
- 9.0 **SINGLE STAGE TWO BID SYSTEM** shall be followed for this tender and only the PRICED-BIDS of the bidders whose offers are commercially and technically acceptable shall be opened for further evaluation.
- 10.0 a) **The Integrity Pact is applicable against this tender. Therefore, please submit the Integrity Pact document duly signed along with your quotation as per BRC. OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide Annexure DDD of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL's competent signatory. The proforma has to be submitted by the bidder (along with the technical bid) duly signed (digitally) by the same signatory who signed the bid, i.e., who is duly authorized to sign the bid. Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact has been signed by the bidder's authorized signatory who sign the Bid. If any bidder refuses to sign Integrity Pact or declines to submit Integrity Pact with the offer, their bid shall be rejected straightway".**
- b) **The name of the OIL's Independent External Monitors at present are as under:**
- SHRI RAGHAW SHARAN PANDEY, IAS (Retd.),**
Former Secretary, MOP & NG,
e-Mail ID : rspandey_99@yahoo.com
- SHRI RAJIV MATHUR, IPS (Retd.)**
Former Director, IB, Govt. of India,
e-Mail ID : rajivmathur23@gmail.com
- 11.0 The tender shall be governed by the Bid Rejection & Bid Evaluation Criteria given in enclosed **Annexure-CCC**. However, if any of the Clauses of the Bid Rejection Criteria / Bid Evaluation Criteria (as per **Annexure-CCC**) contradict the Clauses of the tender and / or "General Terms & Conditions" as per Booklet No. MM/LOCAL/E-01/2005 for E-procurement (LCB Tenders) elsewhere, those in the BEC / BRC shall prevail.
- 12.0 To ascertain the substantial responsiveness of the bid OIL reserves the right to ask the bidder for clarification in respect of clauses covered under BRC also and such clarifications fulfilling the BRC clauses in toto must be received on or before the deadline given by the company, failing which the offer will be summarily rejected.
- 13.0 Please do refer the User Manual provided on the portal on the procedure How to create Response for submitting offer.

NOTE:

Bidders should submit their bids (preferably in tabular form) explicitly mentioning compliance / non compliance to all the NIT terms and conditions of NIT.

Yours Faithfully

**Sd-
(R. BARMAN)
SR. MANAGER MATERIALS (IP)
FOR : HEAD-MATERIALS**

Tender No & Date: SDI8382P16 Dtd. 29.08.2015**BID REJECTION CRITERIA (BRC) / BID EVALUATION CRITERIA (BEC)**

The following BRC/BEC will govern the evaluation of the bids received against this tender. Bids that do not comply with stipulated BRC/BEC in full will be treated as non responsive and such bids shall prima-facie be rejected. Bid evaluation will be done only for those bids that pass through the “Bid Rejection Criteria” as stipulated in this document.

Other terms and conditions of the enquiry shall be as per General Terms and Conditions vide MM/LOCAL/E-01/2005 for E-Procurement LCB Tenders. However, if any of the Clauses of the Bid Rejection Criteria / Bid Evaluation Criteria (BRC / BEC) contradict the Clauses of the tender or MM/LOCAL/E-01/2005 elsewhere, those in the BRC / BEC shall prevail.

<u>Criteria</u>	Complied / Not Complied. (Remarks if any)
<p>1.0 BID REJECTION CRITERIA (BRC):</p> <p>A) TECHNICAL:</p> <p>The bid shall conform generally to the terms and conditions given in this document. Notwithstanding the general conformity of the bids to the stipulated specifications, the following requirements will have to be particularly met by the Bidders without which the same will be considered as non-responsive and rejected.</p> <p>B) COMMERCIAL:</p> <p>i). Validity of the bid shall be minimum 120 days from the Bid Closing Date.</p> <p>ii). Bid security: The bid must be accompanied by Bid Security of Rs 95,000.00 in OIL's prescribed format as Bank Guarantee or a Bank Draft/Cashier cheque in favour of OIL. The Bid Security may be submitted manually in sealed envelope superscribed with Tender no. and Bid Closing date to Head Materials, Materials Department, Oil India Limited, Duliajan- 786602, Assam on or before the Bid Closing Date and Time mentioned in the Tender. The Bank Guarantee towards Bid Security shall be valid for 10 months from Bid closing date. (i.e. upto 15.08.2016)</p> <p>Bid Security may also be paid online on or before the Bid Closing Date and Time mentioned in the Tender.</p> <p><u>If bid security in ORIGINAL of above mentioned Amount and Validity is not received or paid online within bid closing date and time, the bid submitted through electronic form will be rejected</u></p>	

without any further consideration.

For exemption for submission of Bid Security, please refer Clause No. 8.8 of General Terms and Conditions vide MM/LOCAL/E-01/2005 for E-Procurement LCB Tenders.

The format of Bank Guarantee towards Bid Security (Annexure – VII) has been amended to Annexure – VII (Revised) and bidders should submit Bank Guarantee towards Bid Security as per Annexure – VII (Revised) only.

In case of extension of Bid Closing date against the tender where a bidder has already submitted his bid with requisite bid security validity within the original B.C. Date, such bidders will extend validity of bid security covering the extended period of the bid closing date.

- iii). Bids are invited under “Single Stage Two Bid System”. Bidders have to submit both the “Techno-commercial Unpriced Bids” and “Priced Bids” through electronic form in the OIL’s e-Tender portal within the bid Closing date and time stipulated in the e-tender. The Techno-commercial Unpriced bid is to be submitted as per scope of works and Technical specification of the tender and the priced bid as per the online Commercial bid format. For details of submission procedure, please refer relevant para of General Terms and Conditions vide MM/LOCAL/E-01/2005 for E-Procurement LCB Tenders. Any offer not complying with the above shall be rejected straightway.

- v). Performance Security:

The successful Bidder will have to provide Performance Security @ 10% of order value. The Performance Security must be valid for one year from the date of successful commissioning of the equipment or 18 months from the date of despatch whichever is earlier

The validity requirement of Performance Security is assuming despatch within stipulated delivery period and confirmation to all terms and conditions of order. In case of any delay in despatch or non-confirmation to all terms and conditions of order, validity of the Performance Security is to be extended suitably as advised by OIL.

For exemption for submission of Performance Security, please refer Clause No. 9.12 of General Terms and Conditions vide MM/LOCAL/E-01/2005 for E-Procurement LCB Tenders.

- iv). *The Bank Guarantee should be allowed to be encashed at all branches within India.*
- v). The prices offered will have to be firm through delivery and not subject to variation on any account. A bid submitted with an adjustable price will be treated as non-responsive and rejected.

- vi). Bids received after the bid closing date and time will be rejected. Similarly, modifications to bids received after the bid closing date & time will not be considered.
- vii). All the Bids must be Digitally Signed using “Class 3” digital certificate with Organisation’s name (*e-commerce application*) as per Indian IT Act obtained from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India. The bid signed using other than “Class 3 with Organisation’s Name” digital certificate, will be rejected.
- viii). Technical RFx Response folder is meant for Technical bid only. Therefore, No price should be given in Technical RFx Response folder, otherwise the offer will be rejected.
- ix). Price should be maintained in the “online price schedule” only. The price submitted other than the “online price schedule” shall not be considered.

xi). Integrity Pact :

OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide Annexure DDD of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL’s competent signatory. The proforma has to be submitted by the bidder (along with the technical bid) duly signed (digitally) by the same signatory who signed the bid, i.e., who is duly authorized to sign the bid. Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact has been signed by the bidder’s authorized signatory who sign the Bid. If any bidder refuses to sign Integrity Pact or declines to submit Integrity Pact with the offer, their bid shall be rejected straightway”.

xii). A bid shall be rejected straightway if it does not conform to any one of the following clauses:

- (a) Validity of bid shorter than the validity indicated in the Tender.**
- (b) Original Bid Security not received within the stipulated date & time mentioned in the Tender.**
- (c) Bid Security with (i) Validity shorter than the validity indicated in Tender and/or (ii) Bid Security amount lesser than the amount indicated in the Tender.**
- (d) In case the Party refuses to sign Integrity Pact.**
- (e) Average Annual Turnover of a bidder lower than the average Annual turnover mentioned in the Tender.**

2.0 BID EVALUATION CRITERIA (BEC)

A) TECHNICAL:

The bids conforming to the terms and conditions stipulated in the tender and considered to be responsive after subjecting to the Bid Rejection Criteria as well as verification of original of any or all documents/ documentary evidences

pertaining to BRC, will be considered for further evaluation as per the Bid Evaluation Criteria given below.	
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B) COMMERCIAL:

i). To evaluate the inter-se-ranking of the offers, Assam Entry Tax on purchase value will be loaded as per prevailing Govt. of Assam guidelines as applicable on bid closing date. Bidders may check this with the appropriate authority while submitting their offer.

ii) Priced bids of only those bidders will be opened whose offers are found technically acceptable. The technically acceptable bidders will be informed before opening of the "priced bid".

iii). To ascertain the substantial responsiveness of the bid OIL reserves the right to ask the bidder for clarification in respect of clauses covered under BRC also and such clarifications fulfilling the BRC clauses in toto must be received on or before the deadline given by the company, failing which the offer will be summarily rejected.

NOTE:

Bidders should submit their bids (preferably in tabular form) explicitly mentioning compliance / non compliance to all the NIT terms and conditions of NIT.

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TECHNICAL SPECIFICATIONS WITH QUANTITY

Tender No & Date: SDI8382P16 Dtd. 29.08.2015

	Complied / Not Complied. (Remarks if any)
<p>ITEM NO. 10, TRANSFORMER (QTY. – 02 NOS.)</p> <p>1.SCOPE This specification covers supply,testing and commissioning of 500kVA Dry Type Transformer. The transformer to be supplied against this specification is required for vital installations where continuity of service is very important. The design, materials and manufacture of the equipment shall, therefore, be of the highest order to ensure continuous and trouble-free service over the years.</p> <p>2.STANDARDS The latest revisions of the following Codes and Standards listed shall be applicable for the Equipment / materials covered in this specification. IS 11171 & 2026: Dry type power transformer IS 10028 (Part II & III): Installation and Maintenance of Transformer. IS 2099: Bushing IS 2705: Current Transformer. IEC 60529: Classification of degree of protection provided by enclosures</p> <p>3.GENERAL CONSTRUCTION All the MS parts shall be either Hot dipped galvanized or cold galvanized to make them corrosion free. The core shall be made up of high grade low loss cold rolled grain oriented silicon steel. Both low & high voltage windings shall be made of copper conductor. The class of winding insulation shall correspond to class 'F'. The construction of the windings of the transformer shall be such that no creepage path is found even in dusty & corrosive ambient conditions. The core coil assembly shall be housed in a prefabricated enclosure. The enclosure shall be fabricated with mild steel CRCA sheets with adequate provision for ventilation. The enclosures shall undergo the nine tank process. Finally the external and internal surfaces of the enclosure shall be powder coated with the required paint shade.</p> <p>4.GENERAL REQUIREMENTS: 4.1 The transformer shall have thermal and dynamic ability to withstand external short-circuit as per clause 9 of IS 2026 (Part I) 1977 and clause 5 of IS 11171-1985. 4.2 Capacity and Rating: Continuous rating specified shall be irrespective of tapping position. Indoor transformers shall be suitable for IP-23 protection. 4.3 Temperature Rise: The reference ambient temperatures assumed for the purpose of this specification are as follows - (a) Maximum ambient air temperature 50 degree C. (b) Maximum daily average ambient air temperature 40 degree C. (c) Maximum yearly weighted average ambient temperature 32 degree C. (d) Minimum yearly weighted average ambient temperature (-) 5 degree C. (e) Class of insulation F (f) The temperature rise limit at the above conditions and at the altitude not exceeding 1000</p>	

meters shall be as specified. If the site conditions indicated for a particular job is more severe than the referred ambient temperature mentioned above, the temperature rise above ambient shall be suitably scaled down such that the hot spot temperature shall not exceed the values for the reference conditions 90 degree C (F class insulation).

4.4 Cooling: Unless otherwise specified the transformer cooling shall be air and naturally cooled (AN).

Additionally sufficient cooling fans shall be provided which will start automatically when the temperature exceeds 75-90 degree. (The temp shall be adjustable with a thermostat.)

4.5 Tap Changing Device: Preferred tapping range is +5% to -7.5% in 2.5% steps by means of off load tap changing links or tap switch. The device shall be provided on HV for HV Voltage to keep LV Voltage constant.

4.6 Terminal Markings Connections: Relevant provisions of IS: 2026 (Part-IV)-1977 shall be applicable.

4.7 Voltage Ratio: Unless otherwise specified, the transformer shall be suitable for a voltage ratio of 11 KV/415 V

4.8 Vector Group: In case of step down transformers, the winding connections shall conform to vector group Dyn11 unless otherwise specified.

4.9 Accessories: The transformer shall be with enclosure or without enclosure with HV and LV terminations as specified both on HV and LV side. The LV side shall be suitable to receive LV cable inter-connection suitable for full load current of the transformer.

4.10 Fittings: The transformer shall be complete with the following fittings: -

(a) Off load type tap changing link or tap switch.

(b) RTD temperature controller.

(c) Lifting lugs for all transformers.

(d) Bi-directional /Unidirectional Rollers to be specified.

(e) Rating diagram and terminal marking plate for all transformers with OIL's PO No.

(f) Additional Neutral separately brought out on a bushing for earthing for all transformers.

(g) Earth terminals (2 Nos.) for body earthing

(h) Operating spares-1 set

(i) HT Bushings-3 Nos

(f) LT Bushing- 4Nos

5.0) Electrical Parameters of Dry type, natural air/force cooled distribution transformer:

5.01) Rating : 500 KVA.

5.02) Rated HV voltage: 11 kV,3 Phase

5.03) Rated LV voltage: 415 volts, 3 Phase and neutral. 415 volts (phase to phase) and 240 Volts(phase to neutral)

5.04) No. of phase: 3 phase

5.05) Connection (HV) : Delta

5.06) Connection (LV) : Star

5.07) Vector Group : Dyn 11

5.08) Installation : Indoor type.

5.09) Material of winding: Double wound type Copper(99.99%)

5.010) Max. Current density in HV & LV winding: 2.6 A / mm²

5.011) Method of system earthing: Neutral Solidly earthed system

5.012) Auxiliary power supply: 230V AC

5.013) Control Voltage : 230V AC

5.014) Frequency: 50 ± 3 %

5.015) Percentage impedance: 5.0%. Tolerance as per IS-2026.

5.016) Nominal HT system voltage: 11kV

5.017) Service duty: Continuous.

5.1. SITE CONDITION:

- a).
- i) Maximum Ambient air temperature : 40°C
- ii) Minimum Ambient air temperature : 6.0°C
- b). Maximum humidity at site (at 40 ° C) : 98 %
- c). Surrounding atmospheric condition : Humid
- d). Site Altitude: 120 mtrs.
- e). Seismic design co-efficient : As per IS: 1893.
- f). Rainfall : 200 cm (annually.)

5.2.RATING AND GENERAL DATA:

- a). Type of Insulation: Class-F. Temp. Rise-Designed to withstand 120 degree ° C
- b). Partial discharge: As per IS-11171, IS-6209.
- c). Type of cooling: AN or force cooling
- d). Installation: Indoor
- e). Type of neutral earthing: Solidly grounded Neutral.
- f). Symmetrical short circuit withstands capacity: As per IS-11171.
- g). Rated short duration power frequency withstands voltage: As per IS 11171.
- h). Rated lightning impulses withstand voltage: As per IS 11171 (List-2). As Vacuum circuit breaker will be used as incomer to the transformer, BIL voltage shall be 95KV.
- i). Transformer sound level should not exceed 60 db.
- j). Water absorption (24hrs @25C): less than 0.05% (superior insulation, longer life)
- k).Chemical Resistance: Painting must have excellent performance rating.
- l). Dielectric Strength: Minimum of 3200 volts/mil dry (for superior stress, Over voltage tolerance)
- m). Dissipation Factor: Max. 0.02 @25 degree C to reduce aging of insulation.
- n) Shall have high impulse voltage withstand, as the transformer switching by the vacuum circuit breaker.

5.3. TAP CHANGER:

Type: Off-Circuit Tap Links

Total tapping range: ± 5.0 %

Tapping steps: In steps of 2.5 %.

Markings shall be clear enough to indicate the tap position.

5.4. TERMINAL ARRANGEMENT:

HV winding line end: Cable box

LV winding line end : Cable box

Both the terminal/cable boxes shall oposite side of the transformer and cable entry to the terminal/cable boxes shall be button entry.

One neutral bushing outside the cable box shall be provided for grounding.

5.5. BUSHING:

Made from non-hygroscopic epoxy resin cast material suitable for site condition mention in Para- B & conforming to IS-2099

5.6. CABLE BOX:

- i) HV cable box should be suitable for termination of 1 nos 3 Cx120 sq. mm XLPE armoured, Aluminum conductor cable with heat shrink type cable termination. The bottom plate shall be detachable type and 1 nos. heavy duty single compression cable glands suitable for 3Cx120 sqmm XLPE armoured cables shall be fitted. Cable Box standard should be as per IP-54.
- ii) LV cable box should have brought out electro-tinned copper bus bars of suitable rating & size for termination of 3 nos. of 4C x 240 sq. mm PVC/XLPE Aluminium cables. The cable box should have detachable cable gland plate fitted with suitable heavy duty single compression cable glands for the cables mentioned above. Support bar in LV cable box should be made up of fiber glass. Cable Box standard should be as per IP-54.
- iii) HT and LT cable boxes shall be button entry type and Bottom detachable gland plates made from 3.0mm thick MSCR sheet shall be provided for all cable entries, suitable cable gland shall be provided for the above cables.
- iii) Terminals should be marked as per IS: 2026 -1977.

5.7. TRANSFORMER CORE:

- i) Material: High grade cold rolled grain oriented silicon steel.
- ii) Structure: Grounded and sharp corners avoided.
- iii) Lamination: Treated and coated with suitable insulations. The core limbs & yokes are branded by means of resin glass tape to reduce vibration & noise.

5.8. TRANSFORMER WINDING:

The winding material should be high conductivity 99.99% electrolytic grade copper. The insulation should be Cast Resin type, Class-F. Conductor should have thermally upgraded paper (Nomex) insulation reinforced with fiber glass. The coil assembly is to be impregnated & cast under vacuum with epoxy resin for achieving non-hygroscopic, acid & alkali resistant insulation. The complete winding should have smooth cylindrical finish after impregnation to ensure high mechanical strength. The thickness of resin should be uniform. The insulation should be self- extinguishing type. Mounting of the winding to the transformer case shall be of vibration resistance pad placed uniformly in all direction.

- (i) The windings/connection of transformer shall be braced to withstand shocks, which may occur during transport or due to short circuit, repeated peak loads and other transient conditions during service.
- (ii) Windings shall be subjected to a shrinkage treatment before final assembly so that no further shrinkage occurs during service.
- (iii) The conductors shall be transposed at sufficient intervals in order to minimise eddy currents and equalize the distribution of currents and temperature along the windings.
- (iv) Windings shall not have sharp bends which might damage insulation and /or produce high dielectric stresses.
- (v) Coils shall be supported using dried and high pressure compressed wedge type insulation spacers at frequent intervals.
- (vi) All threaded/bolted connections shall be locked. Leads from the winding to the terminal board and bushings shall be rigidly supported to prevent injury during short circuits/vibration.
- (vii) Permanent current carrying joints in the windings and leads shall be welded or brazed.
- (viii) Digital Winding temperature scanner connected with three nos. RTDs, one each for each LV winding, should be provided in a metallic enclosure (Marshalling box) that is mounted on the main enclosure. The scanner shall have potential free NO contacts to provide indication, alarm & trip contacts. Two sets of additional contacts to be provided to connect 2 nos cooling fans so that they start if the temp rises above a set value say above 75 degree. Winding temperature indicator should show maximum temperature attained. The RTDs should be properly wired up to the scanner terminals. Temperature setting of each contact shall be

independently adjustable at site.

5.9. ENCLOSURE

Enclosure for transformer shall be fabricated of minimum 14 SWG gauge properly cleaned degreased and painted as per manufacturer's standard practice. The core & winding assembly should be housed inside a sheet steel enclosure with removable inspection & tap changer covers. The enclosure should offer IP-23 protection as per IS-2147 and should have suitably designed louvers for circulation of cooling air. All the gaskets should be of neoprene rubber. All non-energized metallic parts of the transformer shall be grounded.

5.10. EARTHING

Earthing shall be as per IS-3043. All metal parts of the transformer with the exception of individual core laminations core bolts and associated individual clamping plates shall be earthed internally. Suitable arrangement shall be made for earthing of neutral externally.

5.11. WIRING

All internal wiring shall be done with 1.1kv grade fire retardant PVC insulated tinned copper multi stranded cable of standard size of 2.5sqmm with proper lugs. Ring lugs shall be used at all connections such as CTs connection etc. All terminal strips shall have minimum 2 nos. spare terminals to accommodate any modification required during commissioning /operation. All terminals shall be accessible for testing and troubleshooting/maintenance. All cable shall have ferules.

5.12. NAME PLATE

Transformer shall be furnished with a non-corrosive diagrammatic name plate permanently attached with non-corrosive hardware with following information:

- (i) KVA rating
- (ii) Primary and secondary voltage.
- (iii) Primary and secondary current.
- (iv) Frequency.
- (v) Nos. of phases.
- (vi) Percentage of impedance.
- (vii) Types of cooling.
- (viii) Connection & symbol.
- (ix) Tape configuration.
- (x) Insulation system and rated maximum temperature rise.
- (xi) Sound level.
- (xii) K- factor rating (if available)
- (xiii) Year of manufacture.
- (xiv) Design impedance.
- (xv) Manufacturer's name.
- (xvi) Net weight.
- (xvii) IS standard.
- (xviii) OIL's purchase order no. and date.

5.13. LIFTING HOOK.

Suitable Lifting hook shall be provided on the top of the transformer for transportation/installation of transformer.

5.14. LIST OF FITTINGS AND ACCESSORIES:

- i. HV bushings inside HV cable box: 3 nos. rated for 11kV.

<p>ii. LV bushings in side LV cable box : 4 nos.(3P+1N) rated 415 Volts</p> <p>iii. Outside LV cable box : 1 no. for grounding.</p> <p>iv. Digital Winding temperature scanner connected with 3 nos. of RTDs, one each for each LV winding.</p> <p>v. Earthing terminals: 2 nos for body earthing.</p> <p>vi. Jacking lugs.</p> <p>vii. Inspection cover: 2 nos. placed in opposite site</p> <p>viii. Base channels with bi-directional rollers: 2 nos.</p> <p>ix. Any other accessories which bidders think essential may also be included as optional.</p> <p>6. Make: Siemens,Kirloskar, ABB,Voltamp, Raychem RPG, PETTE, Crompton Greaves.</p>	
<p>ITEM NO. 20, TESTING & COMMISSIONING OF ITEM NO. 10 (QTY. – 1 AU)</p> <p>GENERAL NOTES ON COMMISSIONING:</p> <ol style="list-style-type: none"> 1. The commissioning works shall be done by the manufacturer or by the manufacturer's authorized party. 2. The bidder shall confirm that the jobs shall be carried out under the direct supervision of an Engineer/an an electrical supervisor holding a valid Electrical Supervisor's Certificate of Competency. The copy of certificate of competency should be submitted prior to the commencement of the commissioning jobs. 3.The vendor shall obtain permit to work from OIL's Engr.-in-charge before taking up commissioning works. 4.All tools & instruments for commissioning shall be arranged / provided by the vendor. 5.The commssioning of the transformer shall be considered as complete with the submission of the commissioning test records, operating & maintenance manuals, spares list of the transformer etc to OIL. <p>TECHNICAL NOTES ON COMMISSIONING:</p> <p>Commissioning of 500kVA, 11kv/415 Volts 3 Phase & neutral, 50 Hz, double winding, copper conductor, Dry type, natural air cooled distribution transformer as per item S1 No. 10.</p> <p>(A) Commissioning</p> <ol style="list-style-type: none"> 1. OIL will prepare the civil foundation as per approved drwaing and installed the transformer at site 2. Any other materials not specified in the NIT but required for commsioning, item shall be supplied by party. 3. The party shall start the commisioning jobs after one month of installation of transformer at site <p>(B)PRE-COMMISSIONING CHECKS:</p> <p>After completion of installation of the transformer at the specified site, prior to energizing of the transformer,the following checks and tests shall be carried out on transformer. These shall be carried out in accordance with relevant standards, codes of practices published by the Bureau of Indian Standards and manufacturers recommendations.</p> <p>The following checks/tests shall constitute the:</p> <ol style="list-style-type: none"> i) Assembly, check as per manufacturer's drawings and instructions. 	

<p>ii) Physical inspection for damages, external defects and remedial actions, if any.</p> <p>iii) Check for proper fixing on foundation, levelling and tightness of foundation bolts.</p> <p>iv) Check for proper tightness of transformer & its control devices, accessories, cables and earth connections.</p> <p>v) Check and calibrate meters, if any.</p> <p>vi) Cleanliness at works area shall be maintained at the time of commissioning.</p> <p>(C) TESTING:</p> <p>1) Services of a specialist engineer from the manufacturer of the transformer shall be made available at site for testing.</p> <p>The specialist engineer shall also explain the operating / maintenance procedure of the transformer to OIL's operating / maintenance personnel.</p> <p>2) All tests shall be carried out in presence of OIL's engineer and the test results shall be approved by OIL.</p> <p>3) Following tests should be carried out at the site during pre-commissioning:</p> <p>i) Measurement of winding resistance,</p> <p>ii) Insulation resistance including PI measurement,</p> <p>iii) Measurement of voltage ratio and check voltage vector relationship,</p> <p>iv) Measurement of Magnetizing current</p> <p>v) Magnetic balance test,</p> <p>vi) Load balance test,</p> <p>vii) Functional test of the Temperature meter/accessories,</p> <p>viii) Any other test recommended by the manufacturer.</p> <p>4) All test results shall be recorded in a proper manner. 3 sets of test results shall be submitted to OIL. The results shall be typed and properly documented.</p> <p>D) The following documents shall be submitted by the party after commissioning of transformer at site</p> <ol style="list-style-type: none"> 1. signed and sealed commissioning report 2. Guaranteed or warranty certificate 3. Transformer operation manual 4. All the test reports 	
<p>ITEM NO. 30, TRANSFORMER (QTY. – 02 NOS.)</p> <p>1.SCOPE</p> <p>This specification covers supply, testing and commissioning of 500kVA Dry Type Transformer. The transformer to be supplied against this specification is required for vital installations where continuity of service is very important. The design, materials and manufacture of the equipment shall, therefore, be of the highest order to ensure continuous and trouble-free service over the years.</p> <p>2.STANDARDS</p> <p>The latest revisions of the following Codes and Standards listed shall be applicable for the Equipment / materials covered in this specification.</p> <p>IS 11171 & 2026: Dry type power transformer</p> <p>IS 10028 (Part II & III): Installation and Maintenance of Transformer.</p> <p>IS 2099: Bushing</p> <p>IS 2705: Current Transformer.</p> <p>IEC 60529: Classification of degree of protection provided by enclosures</p>	

3.GENERAL CONSTRUCTION

All the MS parts shall be either Hot dipped galvanized or cold galvanized to make them corrosion free. The core shall be made up of high grade low loss cold rolled grain oriented silicon steel. Both low & high voltage windings shall be made of copper conductor. The class of winding insulation shall correspond to class 'F'. The construction of the windings of the transformer shall be such that no creepage path is found even in dusty & corrosive ambient conditions. The core coil assembly shall be housed in a prefabricated enclosure.

The enclosure shall be fabricated with mild steel CRCA sheets with adequate provision for ventilation. The enclosures shall undergo the nine tank process. Finally the external and internal surfaces of the enclosure shall be powder coated with the required paint shade.

4.GENERAL REQUIREMENTS:

4.1 The transformer shall have thermal and dynamic ability to withstand external short-circuit as per clause 9 of IS 2026 (Part I) 1977 and clause 5 of IS 11171-1985.

4.2 Capacity and Rating: Continuous rating specified shall be irrespective of tapping position. Indoor transformers shall be suitable for IP-23 protection.

4.3 Temperature Rise: The reference ambient temperatures assumed for the purpose of this specification are as follows -

(a) Maximum ambient air temperature 50 degree C.

(b) Maximum daily average ambient air temperature 40 degree C.

(c) Maximum yearly weighted average ambient temperature 32 degree C.

(d) Minimum yearly weighted average ambient temperature (-) 5 degree C.

(e) Class of insulation F

(f) The temperature rise limit at the above conditions and at the altitude not exceeding 1000 meters shall be as specified. If the site conditions indicated for a particular job is more severe than the referred ambient temperature mentioned above, the temperature rise above ambient shall be suitably scaled down such that the hot spot temperature shall not exceed the values for the reference conditions 90 degree C (F class insulation).

4.4 Cooling: Unless otherwise specified the transformer cooling shall be air and naturally cooled (AN).

Additionally sufficient cooling fans shall be provided which will start automatically when the temperature exceeds 75-90 degree. (The temp shall be adjustable with a thermostat.)

4.5 Tap Changing Device: Preferred tapping range is +5% to -7.5% in 2.5% steps by means of off load tap changing links or tap switch. The device shall be provided on HV for HV Voltage to keep LV Voltage constant.

4.6 Terminal Markings Connections: Relevant provisions of IS: 2026 (Part-IV)-1977 shall be applicable.

4.7 Voltage Ratio: Unless otherwise specified, the transformer shall be suitable for a voltage ratio of 11 KV/415 V

4.8 Vector Group: In case of step down transformers, the winding connections shall conform to vector group Dyn11 unless otherwise specified.

4.9 Accessories: The transformer shall be with enclosure or without enclosure with HV and LV terminations as specified both on HV and LV side. The LV side shall be suitable to receive LV cable inter-connection suitable for full load current of the transformer.

4.10 Fittings: The transformer shall be complete with the following fittings: -

(a) Off load type tap changing link or tap switch.

(b) RTD temperature controller.

(c) Lifting lugs for all transformers.

(d) Bi-directional /Unidirectional Rollers to be specified.

(e) Rating diagram and terminal marking plate for all transformers with OIL's PO No.

(f) Additional Neutral separately brought out on a bushing for earthing for all transformers.

(g) Earth terminals (2 Nos.) for body earthing

(h) Operating spares-1 set

(i) HT Bushings-3 Nos

(f) LT Bushing- 4Nos

5.0) Electrical Parameters of Dry type, natural air/force cooled distribution transformer:

5.01) Rating : 500 KVA.

5.02) Rated HV voltage: 11 kV, 3 Phase

5.03) Rated LV voltage: 3300 volts, 3 Phase and neutral(earthing only).

5.04) No. of phase: 3 phase

5.05) Connection (HV) : Delta

5.06) Connection (LV) : Star

5.07) Vector Group : Dyn 11

5.08) Installation : Indoor type.

5.09) Material of winding: Double wound type Copper(99.99%)

5.010) Max. Current density in HV & LV winding: 2.6 A / mm²

5.011) Method of system earthing: Neutral Solidly earthed system

5.012) Auxiliary power supply: 230V AC

5.013) Control Voltage : 230V AC

5.014) Frequency: 50 ± 3 %

5.015) Percentage impedance: 5.0%. Tolerance as per IS-2026.

5.016) Nominal HT system voltage: 11kV

5.017) Service duty: Continuous.

5.1. SITE CONDITION:

a).

i) Maximum Ambient air temperature : 40°C

ii) Minimum Ambient air temperature : 6.0°C

b). Maximum humidity at site (at 40 ° C) : 98 %

c). Surrounding atmospheric condition : Humid

d). Site Altitude: 120 mtrs.

e). Seismic design co-efficient : As per IS: 1893.

f). Rainfall : 200 cm (annually.)

5.2.RATING AND GENERAL DATA:

a). Type of Insulation: Class-F. Temp. Rise-Designed to withstand 120 degree ° C

b). Partial discharge: As per IS-11171, IS-6209.

c). Type of cooling: AN or force cooling

d). Installation: Indoor

e). Type of neutral earthing: Solidly grounded Neutral.

f). Symmetrical short circuit withstands capacity: As per IS-11171.

g). Rated short duration power frequency withstands voltage: As per IS 11171.

h). Rated lightning impulses withstand voltage: As per IS 11171 (List-2). As Vacuum circuit breaker will be used as incomer to the transformer, BIL voltage shall be 95KV.

i). Transformer sound level should not exceed 60 db.

j). Water absorption (24hrs @25C): less than 0.05% (superior insulation, longer life)

k).Chemical Resistance: Painting must have excellent performance rating.

l). Dielectric Strength: Minimum of 3200 volts/mil dry (for superior stress, Over voltage

tolerance)

m). Dissipation Factor: Max. 0.02 @25 degree C to reduce aging of insulation.

n) Shall have high impulse voltage withstand, as the transformer switching by the vacuum circuit breaker.

5.3. TAP CHANGER:

Type: Off-Circuit Tap Links

Total tapping range: $\pm 5.0\%$

Tapping steps: In steps of 2.5 %.

Markings shall be clear enough to indicate the tap position.

5.4. TERMINAL ARRANGEMENT:

HV winding line end: Cable box

LV winding line end : Cable box

Both the terminal/cable boxes shall oposite side of the transformer and cable entry to the terminal/cable boxes shall be button entry.

One neutral bushing outside the cable box shall be provided for grounding.

5.5. BUSHING:

Made from non-hygroscopic epoxy resin cast material suitable for site condition mention in Para- B & conforming to IS-2099

5.6. CABLE BOX:

i) HV cable box should be suitable for termination of 1 nos 3 Cx120 sq. mm XLPE armoured, Aluminum conductor cable with heat shrink type cable termination. The bottom plate shall be detachable type and 1 nos. heavy duty single compression cable glands suitable for 3Cx120 sqmm XLPE armoured cables shall be fitted. Cable Box standard should be as per IP-54.

ii) LV cable box should have brought out electro-tinned copper bus bars of suitable rating & size for termination of 1 nos. of 3C x 240 sq. mm PVC/XLPE Aluminium cables. The cable box should have detachable cable gland plate fitted with suitable heavy duty single compression cable glands for the cables mentioned above. Support bar in LV cable box should be made up of fiber glass. Cable Box standard should be as per IP-54.

iii) HT and LT cable boxes shall be button entry type and Bottom detachable gland plates made from 3.0mm thick MSCR sheet shall be provided for all cable entries, suitable cable gland shall be provided for the above cables.

iii) Terminals should be marked as per IS: 2026 -1977.

5.7. TRANSFORMER CORE:

i) Material: High grade cold rolled grain oriented silicon steel.

ii) Structure: Grounded and sharp corners avoided.

iii) Lamination: Treated and coated with suitable insulations. The core limbs & yokes are branded by means of resin glass tape to reduce vibration & noise.

5.8. TRANSFORMER WINDING:

The winding material should be high conductivity 99.99% electrolytic grade copper. The insulation should be Cast Resin type, Class-F. Conductor should have thermally upgraded paper (Nomex) insulation reinforced with fiber glass. The coil assembly is to be impregnated & cast under vacuum with epoxy resin for achieving non-hygroscopic, acid & alkali resistant insulation. The complete winding should have smooth cylindrical finish after impregnation to ensure high mechanical strength. The thickness of resin should be uniform. The insulation should be self- extinguishing type. Mounting of the winding to the transformer case shall be of

vibration resistance pad placed uniformly in all direction.

(i) The windings/connection of transformer shall be braced to withstand shocks, which may occur during transport or due to short circuit, repeated peak loads and other transient conditions during service.

(ii) Windings shall be subjected to a shrinkage treatment before final assembly so that no further shrinkage occurs during service.

(iii) The conductors shall be transposed at sufficient intervals in order to minimise eddy currents and equalize the distribution of currents and temperature along the windings.

(iv) Windings shall not have sharp bends which might damage insulation and /or produce high dielectric stresses.

(v) Coils shall be supported using dried and high pressure compressed wedge type insulation spacers at frequent intervals.

(vi) All threaded/bolted connections shall be locked. Leads from the winding to the terminal board and bushings shall be rigidly supported to prevent injury during short circuits/vibration.

(vii) Permanent current carrying joints in the windings and leads shall be welded or brazed.

(viii) Digital Winding temperature scanner connected with three nos. RTDs, one each for each LV winding, should be provided in a metallic enclosure (Marshalling box) that is mounted on the main enclosure. The scanner shall have potential free NO contacts to provide indication, alarm & trip contacts. Two sets of additional contacts to be provided to connect 2 nos cooling fans so that they start if the temp rises above a set value say above 75 degree. Winding temperature indicator should show maximum temperature attained. The RTDs should be properly wired up to the scanner terminals. Temperature setting of each contact shall be independently adjustable at site.

5.9. ENCLOSURE

Enclosure for transformer shall be fabricated of minimum 14 SWG gauge properly cleaned degreased and painted as per manufacturer's standard practice. The core & winding assembly should be housed inside a sheet steel enclosure with removable inspection & tap changer covers. The enclosure should offer IP-23 protection as per IS-2147 and should have suitably designed louvers for circulation of cooling air. All the gaskets should be of neoprene rubber. All non-energized metallic parts of the transformer shall be grounded.

5.10. EARTHING

Earthing shall be as per IS-3043. All metal parts of the transformer with the exception of individual core laminations core bolts and associated individual clamping plates shall be earthed internally. Suitable arrangement shall be made for earthing of neutral externally.

5.11. WIRING

All internal wiring shall be done with 1.1kv grade fire retardant PVC insulated tinned copper multi stranded cable of standard size of 2.5sqmm with proper lugs. Ring lugs shall be used at all connections such as CTs connection etc. All terminal strips shall have minimum 2 nos. spare terminals to accommodate any modification required during commissioning /operation. All terminals shall be accessible for testing and troubleshooting/maintenance. All cable shall have ferules.

5.12. NAME PLATE

Transformer shall be furnished with a non-corrosive diagrammatic name plate permanently attached with non-corrosive hardware with following information:

(i) KVA rating

(ii) Primary and secondary voltage.

(iii) Primary and secondary current.

- (iv)Frequency.
- (v)Nos. of phases.
- (vi)Percentage of impedance.
- (vii)Types of cooling.
- (viii)Connection & symbol.
- (ix)Tape configuration.
- (x) Insulation system and rated maximum temperature rise.
- (xi)Sound level.
- (xii) K- factor rating (if available)
- (xiii)Year of manufacture.
- (xiv)Design impedance.
- (xv) Manufacturer's name.
- (xvi) Net weight.
- (xvii) IS standard.
- (xviii) OIL's purchase order no. and date.

5.13. LIFTING HOOK.

Suitable Lifting hook shall be provided on the top of the transformer for transportation/installation of transformer.

5.14. LIST OF FITTINGS AND ACCESSORIES:

- i. HV bushings inside HV cable box: 3 nos. rated for 11kV.
- ii. LV bushings in side LV cable box : 3 nos.(3P) rated 3300 Volts
- iii. Outside LV cable box : 1 no. for neutral grounding.
- iv. Digital Winding temperature scanner connected with 3 nos. of RTDs, one each for each LV winding.
- v. Earthing terminals: 2 nos for body earthing.
- vi. Jacking lugs.
- vii. Inspection cover: 2 nos. placed in opposite site
- viii. Base channels with bi-directional rollers: 2 nos.
- ix. Any other accessories which bidders think essential may also be included as optional.

6. Make: Siemens,Kirloskar, ABB,Voltamp, Raychem RPG, PETTE, Crompton Greaves.

ITEM NO. 40, TESTING & COMMISSIONING OF ITEM NO. 30

GENERAL NOTES ON COMMISSIONING:

1. The commissioning works shall be done by the manufacturer or by the manufacturer's authorized party.
2. The bidder shall confirm that the jobs shall be carried out under the direct supervision of an Engineer/an electrical supervisor holding a valid Electrical Supervisor's Certificate of Competency. The copy of certificate of competency should be submitted prior to the commencement of the commissioning jobs.
- 3.The vendor shall obtain permit to work from OIL's Engr.-in-charge before taking up commissioning works.
- 4.All tools & instruments for commissioning shall be arranged / provided by the vendor.
- 5.The commissioning of the transformer shall be considered as complete with the submission of the commissioning test records, operating & maintenance manuals, spares list of the transformer etc to OIL.

TECHNICAL NOTES ON COMMISSIONING:

Commissioning of 500kVA, 11kv/415 Volts 3 Phase & neutral, 50 Hz, double winding, copper conductor, Dry type, natural air cooled distribution transformer as per item SI No. 10.

(A) Commissioning

1. OIL will prepare the civil foundation as per approved drawing and installed the transformer at site
2. Any other materials not specified in the NIT but required for commissioning, item shall be supplied by party.
3. The party shall start the commissioning jobs after one month of installation of transformer at site

(B) PRE-COMMISSIONING CHECKS:

After completion of installation of the transformer at the specified site, prior to energizing of the transformer, the following checks and tests shall be carried out on transformer. These shall be carried out in accordance with relevant standards, codes of practices published by the Bureau of Indian Standards and manufacturers recommendations.

The following checks/tests shall constitute the:

- i) Assembly, check as per manufacturer's drawings and instructions.
- ii) Physical inspection for damages, external defects and remedial actions, if any.
- iii) Check for proper fixing on foundation, levelling and tightness of foundation bolts.
- iv) Check for proper tightness of transformer & its control devices, accessories, cables and earth connections.
- v) Check and calibrate meters, if any.
- vi) Cleanliness at works area shall be maintained at the time of commissioning.

(C) TESTING:

- 1) Services of a specialist engineer from the manufacturer of the transformer shall be made available at site for testing.

The specialist engineer shall also explain the operating / maintenance procedure of the transformer to OIL's operating / maintenance personnel.

- 2) All tests shall be carried out in presence of OIL's engineer and the test results shall be approved by OIL.

- 3) Following tests should be carried out at the site during pre-commissioning:

- i) Measurement of winding resistance,
 - ii) Insulation resistance including PI measurement,
 - iii) Measurement of voltage ratio and check voltage vector relationship,
 - iv) Measurement of Magnetizing current
 - v) Magnetic balance test,
 - vi) Load balance test,
 - vii) Functional test of the Temperature meter/accessories,
 - viii) Any other test recommended by the manufacturer.
- 4) All test results shall be recorded in a proper manner. 3 sets of test results shall be submitted to OIL. The results shall be typed and properly documented.

- D) The following documents shall be submitted by the party after commissioning of transformer at site

<ol style="list-style-type: none"> 1. signed and sealed commissioning report 2. Guaranteed or warranty certificate 3. Transformer operation manual manual 4. All the test reports 	
<p>INSPECTION.</p> <p>(i) All the NIT specified routine tests and special tests as per IS: 11171 are to be carried out in presence of OIL's Engineer at manufacturer's works. The supplier will give intimation to OIL 15 days advance prior to commencement of tests so that OIL can depute representative for witnessing tests in time.</p> <p>(ii) The dispatch will be cleared only if the test results comply with the specifications and testing results are within the tolerance limits.</p> <p>(iii) Materials / equipment failed to conform to the specifications/during testing, OIL's representative shall have the right to reject the materials and in that case, the supplier will either replace the rejected materials or make alterations necessary to meet specifications requirements free of costs.</p>	
<p>GENERAL TERMS AND CONDITIONS:</p> <p>i. Party should furnish all relevant technical particulars as per IS:2026 (1977), Part-I along with the offer.</p> <p>ii. Bidder shall mention in their offer the minimum ventilation requirement of transformer room.</p> <p>iii. Bidder must indicate the storage procedure for the transformer in case the transformer is left un-energized.</p> <p>iv. List of commissioning checks required for the transformer must be enclosed with the offer.</p> <p>v. Transformer winding shall be specially braced to withstand to thermal and mechanical stresses of harmonic current and voltage.</p> <p>VI. Offer shall be complete in all respect to meet the technical specifications and general notes of the NIT.</p> <p>VII. Bidder, offering as an authorised dealer/offering on behalf of OEM, shall submit copy of valid dealership certificate/authorisation letter from the OEM along with the offer.</p> <p>VIII. The bidder should have successfully completed supply, installation and commissioning of minimum 1 nos, 11 KV, 500KVA or higher rated transformer in any central Govt. /Govt. PSU/Public Limited Companies during the last 5 years. Performance certificates from user in this effect and the details of the job carried out shall be enclosed with the offer.</p> <p>IX. OEM of the Transformer shall have the testing facilities to carry out the type test and routine tests of the transformer as per BIS in their manufacturing works and shall confirm the availability of the testing facility in the offer. Documentary evidence to this effect also shall be enclosed with the offer.</p> <p>X. The copy of the type test certificates carried out on a 11 KV, 500KVA dry type transformer should be furnished along with the offer</p> <p>XI. Bidder should mention the no load losses, load losses & efficiency at 50% & 75% load (0.8 pf) on transformer with the offer</p> <p>XII. Temperature rise test shall be carried out on transformer for full load current and up to 90 degree centigrade temperature. It takes nearly 8-12 hrs to complete test. Party should confirm in the offer about test to be carried out at their premises.</p> <p>XIII. Partial discharge type test is to be carried out on transformer. Party should also confirm about the test in their offer</p>	

<p>TEST</p> <p>I. TYPE TEST</p> <p>The transformer shall be type tested and following CPRI or any government approved laboratory type test certificates on similar transformer of specified rating should be furnished along with the offer. These type test certificates should not be more than 5 (five) years old on the date of bid opening. Offers without these type certificates may not be considered for evaluation.</p> <p>Type test shall constitute the followings:</p> <ul style="list-style-type: none"> (a) Measurement of winding resistance, (b) Measurement of voltage ratio and check of voltage vector relationship, (c) Measurement of impedance voltage, short circuit impedance and load loss, (d) Measurement of no load loss and current, (e) Separate-source voltage withstand test, (f) Induced overvoltage withstand test, (g) Lightning impulse test, (h) Temperature-rise test and (i) Short-circuit test. <p>II. SPECIAL TESTS:</p> <ul style="list-style-type: none"> (i) Partial discharge test as per IS : 6209-1982 and with Appendix A of IS : 2026 (Part 3)-1981. (ii) Measurement of acoustic sound 	
<p>DOCUMENTS TO BE SUBMITTED BY THE BIDDER:</p> <ul style="list-style-type: none"> i. Manufacture's test certificates for all the components & assemblies as required by IS-11171 with latest amendments should be submitted to us along with dispatch of the materials. ii. Party should get the detail transformer drawings approved from OIL prior to manufacturing of the transformer. iii. The bidder should submit with their offer the list of customers to whom the bidder has supplied transformers of similar rating & type (as per NIT) during last five years. iv. Bidder's shall submit the list of manufacturer's authorized dealers of eastern region along with the offer. v. Bidder's shall fill up the technical data sheet as per format attached. 	
<p>TECHNICAL PARTICULARS</p> <p>The following Technical Particulars to be furnished by the party along with their offer:</p> <ul style="list-style-type: none"> i. Type of transformer: ii. Rating of transformer: iii. Primary Winding Details: iv. Secondary Winding Details: v. Reference standards: vi. No of Phases: vii. Rated Frequency: viii. Vector Group ix. Type of Cooling: x. Impedance Voltages: xi. Tapping on HV: xii. Enclosure type (IP): xiii. No Load losses at rated voltage: xiv. No load current at rated voltage: xv. Total losses (Cu+ Iron) at rated load: xvi. Insulation class: 	

- xvii. Insulation level:
- xviii. Average temp rise of windings over ambient temp (50 Degree):
- xix. Dimension (L X B X H):
- xx. Winding material:
- xxi. Efficiency at unity PF at full load:
- xxii. Efficiency at unity PF at half load:
- xxiii. Percentage Regulation at unity PF:
- xxiv. Percentage Regulations at 0.8 PF (Lag) 25: 25. Sound level:

NOTE:

- i. The bidder shall test and commission the transformer within 30 days after getting the Commissioning call from OIL.
- ii. Testing & Commissioning of 500kVA, 11kV/415V transformer Shall be carried out by specialist /engineer from manufacturer
- iii. All pre commissioning testing of transformer like magnetic balance test, vector group test, IR test etc. are required to be carried out by party at site before energisation of the transformer.

NOTE:

- 1. Material shall be guaranteed for minimum one year period from the date of commissioning or 18 months from date of supply of the material. Duly stamped Guarantee certificate should be supplied along with the material.
- 2. The bidder shall be manufacturer or authorized dealer of manufacturer of Dry Type Transformer. In case of authorized dealer, valid dealership/authorization certificate must be submit along with bid
- 3. The bidder must quote for both (a) supply, commissioning of new 500kVA dry type transformer
- 4. All items will be procured from same source and bidder should quote accordingly.
- 5. Bidder should quote freight charges separately.\

Bidders should submit their bids (preferably in tabular form) explicitly mentioning compliance / non compliance to all the NIT terms and conditions of NIT.

Annexure- DDD

INTEGRITY PACT

Between

Oil India Limited (OIL) hereinafter referred to as "The Principal"

And

(**Name of the bidder**).....hereinafter referred to as "The Bidder/Contractor"]

Preamble :

The Principal intends to award, under laid down organizational procedures, contract/s for Tender No. _____. The Principal values full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder/s and Contractor/s.

In order to achieve these goals, the Principal cooperates with the renowned international Non-Governmental Organisation "Transparency International" (TI). Following TI's national and international experience, the Principal will appoint an external independent Monitor who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 - Commitments of the Principal

- (1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-
 1. No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for him/herself or third person, any material or immaterial benefit which he/she is not legally entitled to.
 2. The Principal will, during the tender process treat all Bidders with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidders the same information and will not provide to any Bidder confidential/additional information through which the Bidder could obtain an advantage in relation to the tender process or the contract execution.
 3. The Principal will exclude from the process all known prejudiced persons.
- (2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the relevant Anti-Corruption Laws of India, or if there be a Page 2 of 6 substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section 2 - Commitments of the Bidder/Contractor

- (1) The Bidder/Contractor commits itself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
 1. The Bidder/Contractor will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or immaterial benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
 2. The Bidder/Contractor will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, Subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelisation in the bidding process.
 3. The Bidder/Contractor will not commit any offence under the relevant Anticorruption Laws of India; further the Bidder/Contractor will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 4. The Bidder/Contractor will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- (2) The Bidder/Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 - Disqualification from tender process and exclusion from future Contracts

If the Bidder, before contract award has committed a transgression through a violation of Section 2 or in any other form such as to put his reliability or credibility as Bidder into question, the Principal is entitled to disqualify the Bidder from the tender process or to terminate the contract, if already signed, for such reason.

1. If the Bidder/Contractor has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Principal is entitled also to exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressions within the company hierarchy of the Bidder and the

amount of the damage. The exclusion will be imposed for a minimum of 6 months and maximum of 3 years.

2. The Bidder accepts and undertakes to respect and uphold the Principal's Absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.
3. If the Bidder/Contractor can prove that he has restored/recouped the Damage caused by him and has installed a suitable corruption prevention system, the Principal may revoke the exclusion prematurely.
1. A transgression is considered to have occurred if in light of available evidence no reasonable doubt is possible.

Section 4 - Compensation for Damages

1. If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover from the Bidder liquidated damages equivalent to 3 % of the value of the offer or the amount equivalent to Earnest Money Deposit/Bid Security, whichever is higher.
2. If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/Performance Bank Guarantee, whichever is higher.
3. The bidder agrees and undertakes to pay the said amounts without protest or demur subject only to condition that if the Bidder/Contractor can prove and establish that the exclusion of the Bidder from the tender process or the termination of the contract after the contract award has caused no damage or less damage than the amount or the liquidated damages, the Bidder/Contractor shall compensate the Principal only to the extent of the damage in the amount proved.

Section 5 - Previous transgression

1. The Bidder declares that no previous transgression occurred in the last 3 years with any other Company in any country conforming to the TI approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
2. If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section 6 - Equal treatment of all Bidders/Contractor/Subcontractors

1. The Bidder/Contractor undertakes to demand from all subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.

2. The Principal will enter into agreements with identical conditions as this one with all Bidders, Contractors and Subcontractors.
3. The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7 - Criminal charges against violating Bidders/Contractors/ Subcontractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor, which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

Section 8 - External Independent Monitor/Monitors (three in number depending on the size of the contract) (to be decided by the Chairperson of the Principal)

1. The Principal appoints competent and credible external independent Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
2. The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairperson of the Board of the Principal.
3. The Contractor accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder/Contractor/Subcontractor with confidentiality.
4. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
5. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or heal the violation, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
6. The Monitor will submit a written report to the Chairperson of the Board of the Principal within 8 to 10 weeks from the date of reference or intimation to him by the 'Principal' and, should the occasion arise, submit proposals for correcting problematic situations.

7. If the Monitor has reported to the Chairperson of the Board a substantiated suspicion of an offence under relevant Anti-Corruption Laws of India, and the Chairperson has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
8. The word 'Monitor' would include both singular and plural.

Section 9 - Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the respective contract, and for all other Bidders 6 months after the contract has been awarded.

If any claim is made/ lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by Chairperson of the Principal.

Section 10 - Other provisions

1. This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal, i.e. New Delhi.
2. Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
3. If the Contractor is a partnership or a consortium, this agreement must be, signed by all partners or consortium members.
4. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

[

R.BARMAN
SR. MANAGER MATERIALS (IP)

For the Principal

For the Bidder/Contractor

Place. Duliajan.

Witness 1 :

Date 12.02.2014 .

Witness 2 :]

Technical Bid Checklist**Annexure-EEE**

Tender No.			
Bidder's Name :			
		Compliance by Bidder	
SL. NO.	BEC / TENDER REQUIREMENTS	Indicate 'Confirmed' / 'Not Confirmed' / Not applicable	Indicate Corresponding page ref. of unpriced bid or Comments
1	Bidder to confirm that he has not taken any exception/deviations to the bid document .		
2	Confirm that the product offered strictly conform to the technical specifications.		
3	Confirm that the Offer has been made with Bid Bond / Bank Guarantee / Earnest Money along with the offer (Wherever Applicable) ?		
4	Confirm unconditional validity of the bid for 120 days from the date of opening of techno-commercial bid.		
5	Confirm that the prices offered are firm and / or without any qualifications?		
6	Confirm that all relevant fields in the on-line bidding format been filled in by the bidders for the items quoted by them.		
7	Confirm that the the price bid is in conformity with OIL's online bidding format ?		
8	Confirm that the Bid comply with all the terms & conditions ?		
9	Confirm that the offers and all attached documents are digitally signed using digital signatures issued by an acceptable Certifying Authority (CA) as per Indian IT Act 2000.		
10	CONFIRM THAT YOU HAVE SUBMITTED THE DULY SIGNED INTEGRITY PACT DOCUMENT (Wherever Applicable)		
11	CONFIRM THAT YOU HAVE SHALL SUBMIT PERFORMANCE BANK GUARANTEE AS PER NIT IN THE EVENT OF PLACEMENT OF ORDER ON YOU (Wherever Applicable)		
12	CONFIRM THAT YOU HAVE SUBMITTED DOCUMENTS AS PER GENERAL QUALIFICATION CRITERIA		
13	Confirm that you have submitted Name and Full Address of Issuing Bank including Telephone, Fax Nos and Email id of branch manager where Bid security has been submitted as Bank Guarantee.		

NOTE: Please fill up the greyed cells only.

Response Sheet**Annexure-FFF**

Tender No.	
Bidders Name	

Bidders Response Sheet

Sl No.	Description	Remarks
1	Name of Bidder	
2	Whether tender document purchased from OIL's offices.	
3	Place of Despatch	
4	Whether Freight charges have been included in your quoted prices	
5	Whether Insurance charges have been included in your quoted prices	
6	Make of quoted Product	
7	Offered Validity of Bid as per NIT	
8	Delivery Period in weeks from placement of order	
9	Complied to Standard Payment Terms of OIL or not.	
10	Bid Security Submitted (if applicable)	
11	Details of Bid Security Submitted to OIL (if applicable)	
	a) Bid Security Amount (In Rs):	
	b) Bid Security Valid upto:	
12	If Bid security submitted as Bank Guarantee, Name and Full Address of Issuing Bank including Telephone, Fax Nos and Email id of branch manager	
13	Bid Security if Not submitted reasons thereof	
14	Whether you shall submit Performance Security in the event of placement of order on you (if applicable)	
15	Integrity Pact Submitted (if applicable)	
16	Whether submitted documents in support of General Qualification criteria of NIT	
17	If bidder is Small scale unit whether you have quoted your own product	
18	If bidder is Small scale unit whether you are eligible for purchase preference (as per Govt guidelines)	
19	Whether filled up the bank details for online payment as per Annexure GGG	

NOTE: Please fill up the greyed cells only.

ANNEXURE - GGG

**(TO BE FILLED UP BY ALL THE VENDOR IN THEIR OWN LETTER HEAD)
(ALL FIELDS ARE MANDATORY)**

Tender No. :.....
Name of Beneficiary :M/s.....
Vendor Code :.....
Address :.....
.....
Phone No. (Land Line) :.....
Mobile No. :.....
E-mail address :.....
Bank Account No. (Minimum
Eleven Digit No.) :.....
Bank Name :.....
Branch :.....
Complete Address of your
Bank :.....

IFSC Code of your Bank
a) RTGS :.....
b) NEFT :.....
PAN :.....
VAT Registration No. :.....
CST Registration No. :.....
Service Tax Registration No. :.....
Provident Fund Registration :.....

I/We confirm and agree that all payments due to me/us from Oil India Limited can be remitted to our above mentioned account directly and we shall not hold Oil India Limited responsible if the amount due from Oil India Limited is remitted to wrong account due to incorrect details furnished by us.

Office Seal

.....
Signature of Vendor

Counter Signed by Banker:
Seal of Bank:

Enclosure: Self attested photocopies of the following documents-

- 1) PAN Card
- 2) VAT Registration Certificate
- 3) Service Tax Registration
- 4) CST Registration
- 5) Provident Registration Certificate
- 6) Cancelled cheque of the bank account mentioned above (in original).
- 7) Bank Statement not older than 15 days on the date of submission.