OIL INDIA LIMITED

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

INVITATION FOR 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:

E-Tender No	Bid Closing/Opening Date	Item Description
SDI9376P16 Dtd. 28.11.2015 Single Stage Composite Bid	28.01.2016	Multimedia Wireless Projector (Qty. – 19 Nos.)
SDI9034P16 Dtd. 17.10.2015 Single Stage Composite Bid	28.01.2016	Mini Effluent Treatment Plant (Qty. – 1 No.)
SDI9405P16 Dtd. 02.12.2015 Single Stage Composite Bid	28.01.2016	Primary Injection Testing Kit (Qty. – 1 Nos.)
SDI9407P16 Dtd. 02.12.2015 Single Stage Composite Bid	28.01.2016	Panel (Qty. – 2 Nos.)
SDI8858P16 Dtd. 12.10.2015 Single Stage Composite Bid	28.01.2016	Security Gadgets (Qty. – 960 Nos.)
SDI8999P16 Dtd. 17.10.2015 Single Stage Two Bid	28.01.2016	Transformer (Qty. – 5 Nos.)
SDi9406P16 Dtd. 02.12.2015 Single Stage Two Bid	28.01.2016	Acoustic Enclosure (Qty. – 1 Nos.)
SSI9521P16 Dtd. 09.12.2015 Single Stage Composite Bid	28.01.2016	FSC Paper (Qty. – 7200 Pac)
SSI9478P16 Dtd. 05.12.2015 Single Stage Composite Bid	28.01.2016	Electrical Items

Tender fee (Non-refundable): Rs 1,000.00; Bid Closing/Opening Time: (11 Hrs.) IST/(14 Hrs.) IST; Period of sale of documents: Till 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.

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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. : SDI8999P16 Dtd. 17.10.2015

Tender Fee : Rs 1,000.00

Bid Security Amount : Rs. 98,000.00

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, Installation & Commissioning of TRANSFORMER 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) For technical support on various matters viz. Online registration of vendors, Resetting of Passwords, submission of online bids etc, vendors should contact OIL's ERP MM Deptt at following: Tel Nos = 0374-2807171, 0374-2807192. Email id = erp_mm@oilindia.in.

b) OIL's office timings are as below:

	Time (in IST)
Monday – Friday	07.00 AM to 11.00 AM; 12.30 PM to 03.30
	PM
Saturday	07.00 AM to 11.00 AM
Sunday and Holidays	Closed

Vendors should contact OIL officials at above timings only.

c) "General Terms & Conditions" for e-Procurement as per Booklet No. MM/LOCAL/E-01/2005 for E-Procurement LCB Tenders.

- d) Technical specifications and Quantity as per Annexure 1A.
- e) The prescribed Bid Forms for submission of bids are available in the Technical RFx -> External Area > Tender Documents.
- f) 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.
- g) 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.
- h) 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).
- i) 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 29.32 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 97.75 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 Receipted 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.

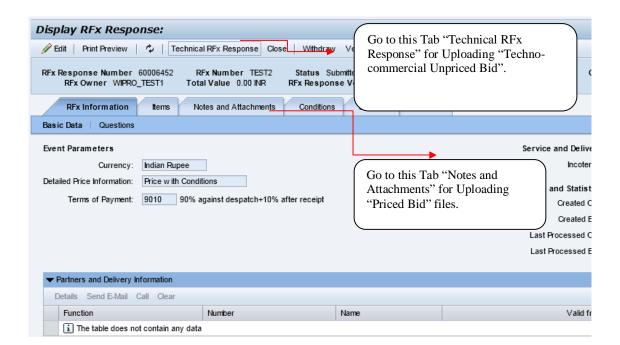
Vendors who do not have OIL's User ID & password shall obtain User ID & password through online vendor registration system in e-portal and can subsequently purchase bid documents through OIL's electronic Payment Gateway.

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 one week prior to B.C. Date (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.

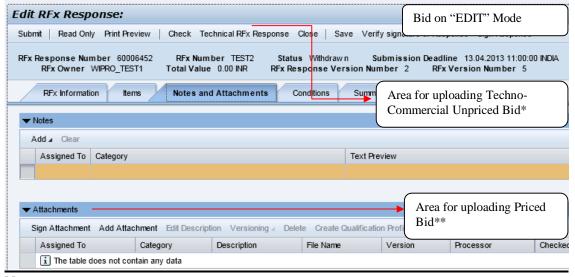
NOTE:

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.



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 Atachment, a browser window will open, select the .SSIG signed file from the PC and name the file under Description, Assigned to General Data and clock 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.
- 8.0Bid 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 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.
- 14.0 If Bank Guarantee is submitted towards 'Bid Security', then bidders have to ensure that the Bank Guarantee issuing bank indicate the name and detailed address (including e-mail) of their higher office from where confirmation towards genuineness of the Bank Guarantee can be obtained.

NOTE:

<u>Bidders should submit their bids (preferably in tabular form) explicitly mentioning</u> 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: SDI8999P16 Dtd. 17.10.2015

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 any)	/ if
1.0 BID REJECTION CRITERIA (BRC):	•	
A) TECHNICAL:		
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.		
B) COMMERCIAL:		
i) Validity of the bid shall be minimum 120 days from the Bid Closing Date.		
ii) Bid security: The bid must be accompanied by Bid Security of Rs 98,000.00 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 28.11.2016).		

Bid Security may also be paid online on or before the Bid Closing Date and Time mentioned in the Tender.

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 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.

iv) 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.

- v) The Bank Guarantee should be allowed to be encashed at all branches within India.
- vi) 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.
- vii) 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.

- viii) 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.
- ix) 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.
- x) 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.

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:

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

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TECHNICAL SPECIFICATIONS WITH QUANTITY

Tender No & Date: SDI8999P16 Dtd. 17.10.2015

Complied /
Not
Complied.
Complied. (Remarks if
any)

ITEM NO. 10 500 KVA TRANSFORMER (QTY. – 1 NO)

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 vears.

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

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 Page 1 of 19

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 with HV and LV terminations as specified both on HV and LV side. The LV side shall be suitable to receive LV cable interconnection 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
- (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
- 4.11. Transformer HV winding shall be suitable for vaccum circuit breaker switching.
- 5. SPECIFICATIONS

Transformer 500kVA, 11kV/415 Volts, 3 Phases, 50 Hz, Double winding, copper conductor, Dry type, natural air cooled/force cooled distribution transformer for indoor installation & as per following specifications:

5.1. GENERAL:

- 1. Applicable Indian Standard: IS: 11171 and IS: 2026 with latest amendments.
- 2. Service duty: Continuous.
- 3. Installation: Indoor.
- 4. Auxiliary power supply: 230V AC
- 5. Control Voltage: 230V AC
- 5.2. 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.)

5.3.RATING AND GENERAL DATA:

- a). Rating: 500kVAb). No. of phases: 3.c). Frequency: 50 ± 3 %
- d). Type of Insulation: Class-F. Temp. Rise-Designed to withstand 140 degree ° C
- e). Partial discharge: As per IS-11171, IS-6209.
- f). Type of cooling: AN g). Installation: Indoor h). Vector group: Dyn 11
- i). Percentage impedance: 4.87%. Tolerance as per IS-2026.
- j). Nominal system voltage: 11kV/415 Volts
- k). Type of neutral earthing: Solidly grounded Neutral.
- 1). Symmetrical short circuit withstands capacity: As per IS-11171.
- m). Rated short duration power frequency withstands voltage: As per IS 11171.
- n). 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 75KV.
- o). Transformer sound level should not exceed 60 db.
- p). Water absorption (24hrs @25C): less than 0.05% (superior insulation, longer life)
- q). Chemical Resistance: Painting must have excellent performance rating.
- r). Dielectric Strength: Minimum of 3200 volts/mil dry (for superior stress, Over voltage tolerance)
- s). Dissipation Factor: Max. 0.02 @25 degree C to reduce aging of insulation.

5.4. 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.

5.5. TERMINAL ARRAGEMENT:

HV winding line end: Cable box LV winding line end: Cable box

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

5.6. BUSHING:

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

5.7. CABLE BOX:

- i) HV cable box should be suitable for termination of 1 no 3 Cx240 sq. mm XLPE armoured, Aluminum conductor cable with heat shrink type cable termination. The bottom plate shall be detachable type and 1 no. heavy duty single compression cable glands suitable for 3Cx240 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 4 nos. of $3\frac{1}{2}$ x 240 sq. mm PVCA/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 bottom 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.

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

5.8. 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.

5.9. 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.

5.10. 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.

5.11. 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.

5.12. 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.

5.13. 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 P.O. no. and date.

5.14. LIFTING HOOK.

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

5.12. LIST OF FITTNGS AND ACCESSORIES:

- i. HV bushings inside HV cable box: 3 nos. rated for 11kV.
- ii. LV bushings in side LV cable box: 4 nos.(3P+1N) rated 415 Volts
- iii. Outside LV cable box: 1 no. for 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: Crompton Greaves, Voltamp, Raychem RPG, PETE-HAMMOND, ABB

7. INSPECTION.

- (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.
- (ii) The dispatch will be cleared only if the test results comply with the specifications and testing results are within the tolerance limits.
- (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.

8. GENERAL TERMS AND CONDITIONS:

- i. Party should furnish all relevant technical particulars as per IS:2026 (1977), Part-I along with the offer.
- ii. Bidder shall mention in their offer the minimum ventilation requirement of transformer room.
- iii. Bidder must indicate the storage procedure for the transformer in case the transformer is left un-energized.
- iv. List of commissioning checks required for the transformer must be enclosed with the offer.
- v. Transformer winding shall be specially braced to withstand to thermal and mechanical stresses of harmonic current and voltage.
- vI. Bidder should mention the no load losses, load losses & efficiency at 50% & 75% load (0.8 pf) on transformer with the offer
- VII.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 OEM premises.
- VIII. Partial discharge type test is to be carried out on transformer. Party should also confirm about the test in their offer
- iX. Party should get the detail transformer drawings approved from OIL prior to manufacturing of the transformer.
- X. Bidder, offering on behalf of OEM, shall submit copy of valid dealership certificate/authorisation letter from the OEM along with the offer.
- XI. The bidder shall offer for both supply & Commissioning of the transformers.
- XII. The bidder or their OEM 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.
- XIII. The copy of the type test and temperature test certificates carried out on a similar dry type transformer should be furnished along with the offer.

9. TEST

I. TYPE TEST

The transformer shall be type tested at CPRI or any government approved laboratory and type test certificates carried out on similar transformer 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.

Type test shall constitute the followings:

- (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.
- II. SPECIAL TESTS:
- (i) Partial discharge test as per IS: 6209-1982 and with Appendix A of IS: 2026 (Part 3)-1981.
- (ii) Measurement of acoustic sound

10. DOCUMENTS TO BE SUBMITTED BY THE BIDDER:

- 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 the materials.
- ii. Bidder's shall fill up the technical data sheet as per format attached.

11. TECHNICAL PARTICULARS

The following Technical Particulars to be furnished by the party along with their offer:

- 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:

ITEM NO. 20 TESTING AND COMMISSIONING 500KVA TRANSFORMER (QTY. – 1 AU)

GENERAL NOTES ON COMMISSIONING:

1. 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.

- 2. The vendor shall obtain permit to work from OIL's Engr.-in-charge before taking up commissioning works.
- 3. All tools & instruments for commissioning shall be arranged / provided by the vendor.

The bidder shall depute their commissioning team and commission the transformer within 30 days after getting the Commissioning call from OIL.

- 4. Testing & Commissioning of transformer Shall be carried out by specialist /engineer from manufacturer .. 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.
- 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:

(A) Commissioning

- 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 commissioning, item shall be supplied by party.

(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. 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 meters, if any.

ITEM NO. 30 750 KVA TRANSFORMER (OTY. – 1 NO.)

1.SCOPE

This specification covers supply,testing and commissioning of 750kVA 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.

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

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 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
- (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

4.11. Transformer HV winding shall be suitable for vaccum circuit breaker switching.

5. SPECIFICATIONS

Transformer 750kVA, 11kV/415 Volts, 3 Phases, 50 Hz, Double winding, copper conductor,

Dry type, natural air cooled/force cooled distribution transformer for indoor installation & as per following specifications:

5.1. GENERAL:

- 1. Applicable Indian Standard: IS: 11171 and IS: 2026 with latest amendments.
- 2. Service duty: Continuous.
- 3. Installation: Indoor.
- 4. Auxiliary power supply: 230V AC
- 5. Control Voltage: 230V AC
- 5.2. 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.)

5.3.RATING AND GENERAL DATA:

- a). Rating: 750kVA
- b). No. of phases: 3.
- c). Frequency: $50 \pm 3 \%$
- d). Type of Insulation: Class-F. Temp. Rise-Designed to withstand 140 degree ° C
- e). Partial discharge: As per IS-11171, IS-6209.
- f). Type of cooling: AN
- g). Installation: Indoor
- h). Vector group: Dvn 11
- i). Percentage impedance: 5.0%. Tolerance as per IS-2026.
- j). Nominal system voltage: 11kV/415 Volts
- k). Type of neutral earthing: Solidly grounded Neutral.
- 1). Symmetrical short circuit withstands capacity: As per IS-11171.
- m). Rated short duration power frequency withstands voltage: As per IS 11171.
- n). 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 75KV.
- o). Transformer sound level should not exceed 60 db.
- p). Water absorption (24hrs @25C): less than 0.05% (superior insulation, longer life)
- q). Chemical Resistance: Painting must have excellent performance rating.
- r). Dielectric Strength: Minimum of 3200 volts/mil dry (for superior stress, Over voltage tolerance)
- s). Dissipation Factor: Max. 0.02 @25 degree C to reduce aging of insulation.

5.4. 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.

5.5. TERMINAL ARRAGEMENT:

HV winding line end: Cable box LV winding line end: Cable box

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

5.6. BUSHING:

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

5.7. CABLE BOX:

- i) HV cable box should be suitable for termination of 1 no 3 Cx240 sq. mm XLPE armoured, Aluminum conductor cable with heat shrink type cable termination. The bottom plate shall be detachable type and 1 no. heavy duty single compression cable glands suitable for 3Cx240 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 4 nos. of $3\frac{1}{2}$ x 240 sq. mm PVCA/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 bottom 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.
- iv) Terminals should be marked as per IS: 2026 -1977.

5.8. 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.

5.9. 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.

5.10. 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.

5.11. 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.

5.12. 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.

5.13. 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 P.O. no. and date.

5.14. LIFTING HOOK.

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

5.12. LIST OF FITTNGS AND ACCESSORIES:

- i. HV bushings inside HV cable box: 3 nos. rated for 11kV.
- ii. LV bushings in side LV cable box : 4 nos.(3P+1N) rated 415 Volts
- iii. Outside LV cable box: 1 no. for 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: Crompton Greaves, Voltamp, Raychem RPG, PETE-HAMMOND, ABB
- 7. INSPECTION.
- (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.
- (ii) The dispatch will be cleared only if the test results comply with the specifications and testing results are within the tolerance limits.
- (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.

8. GENERAL TERMS AND CONDITIONS:

- i. Party should furnish all relevant technical particulars as per IS:2026 (1977), Part-I along with the offer.
- ii. Bidder shall mention in their offer the minimum ventilation requirement of transformer room.
- iii. Bidder must indicate the storage procedure for the transformer in case the transformer is left unenergized.
- iv. List of commissioning checks required for the transformer must be enclosed with the offer.
- v. Transformer winding shall be specially braced to withstand to thermal and mechanical stresses of harmonic current and voltage.
- vI. Bidder should mention the no load losses, load losses & efficiency at 50% & 75% load (0.8 pf) on transformer with the offer
- VII.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.
- VIII. Partial discharge type test is to be carried out on transformer. Party should also confirm about the test in their offer
- iX. Party should get the detail transformer drawings approved from OIL prior to manufacturing of the transformer.

9. TEST

I. TYPE TEST

The transformer shall be type tested at CPRI or any government approved laboratory and type test certificates carried out on similar transformer 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.

Type test shall constitute the followings:

- (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.
- II. SPECIAL TESTS:
- (i) Partial discharge test as per IS: 6209-1982 and with Appendix A of IS: 2026 (Part 3)-1981.
- (ii) Measurement of acoustic sound

10. DOCUMENTS TO BE SUBMITTED BY THE BIDDER:

- 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 the materials.
- ii. Bidder's shall fill up the technical data sheet as per format attached.

11. TECHNICAL PARTICULARS

The following Technical Particulars to be furnished by the party along with their offer:

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: ITEM NO. 40 TESTING & COMMISSIONING OF ITEM-30 (QTY. – 1 AU) Same As Item-20 ITEM NO. 50 750 KVA TRANSFORMER (QTY. – 1 NO.) Same As Item-30 ITEM NO. 60 TESTING & COMMISSIONING OF ITEM-50 (QTY. – 1 AU) Same As Item-20 ITEM NO. 70 TRANSFORMER (QTY. – 2 NOS.) ANNEXURE-I Item No 1 500kVA, 11kV/433V, 3 Phase, 50 Hz, double winding, copper conductor, Oil filled, natural cooled distribution transformer for indoor use & conforming to IS: 2026 -1977 with latest amendments, as per following specifications: A. GENERAL: 1. Applicable Indian Standard: IS: 2026 –1977 and 6600 –1977 with latest amendments. 2. Service : Continuous. 3. Quantity required: 2 4. Installation : Indoor. 5. Auxiliary power supply 230V AC \pm 10 % 6. Control Voltage : 230V AC \pm 10 %

B. SITE CONDITION:

- 1. a) Maximum Ambient air temperature: 40 ° C
- b) Minimum Ambient air temperature : 6.0 ° C
- 2. Maximum humidity at site (at 40 ° C): 98 %
- 3. Surrounding atmospheric condition : Humid
- 4. Site altitude: 120
- 5. Seismic design co-efficient As per IS: 1983
- 6. Rainfall: High

C. RATING AND GENERAL DATA:

- 1. Rating: 500kVA
- 2. No. of phases : 3.
- 3. Frequency: $50 \pm 3 \%$
- 4. Type: Mineral oil filled.
- 5. Type of cooling: ONAN
- 6. Installation: Indoor
- 7. Vector group: Dyn 11
- 8. Percentage impedance As per IS:2026
- 9. Nominal system voltage: 11KV/433 kV
- 10. Type of neutral earthing: solidly grounded neutral.
- 11. Symmetric short circuit withstands capacity: As per IS-2026.
- 12. Rated short duration power frequency withstand voltage: As per IS 2026.
- 13. Rated lightning impulse withstand voltage: As per IS 2026.
- 14. a) Temperature rise in windings : 55 ° C
 - b) Temperature rise in top oil : 50 ° C
- c) Temperature rise of cores, metallic parts, and adjacent materials: The temperature shall in no case reach a value that will damage the core itself, other parts or adjacent materials.

15. TAP CHANGER:

Type : OFF Circuit. Total tapping range : $\pm 7.5 \%$

Tapping steps : In steps of 2.5 %.

16. TERMINAL ARRAGEMENT:

HV winding line end : Cable box LV winding line end : Cable box LV winding neutral end : Bushing

One neutral bushing inside and the one outside the cable box.

17. BUSHING:

Voltage Class: As per IS: 2099 - 1973.

18. CABLE BOX:

- a) HV cable box should be suitable for termination of 1 no. 3C,120 sq. mm PILC/ XLPE armored aluminum conductor cable with heat shrink type cable termination. Bottom plate should be detachable. Cable Box as per IP-54.
- b) LV cable box should have brought out electro-tinned copper busbars of suitable rating & size for termination of 4. nos. of 3 ½ C x 240 sq. mm PVCA Aluminum cable. 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 Sheet Moulding compound (SMC) / fibre glass as mentioned above. Cable Box as per IP-54. Terminals should be marked as per IS: 2026 –1977.

19. TRANSFORMER CORE:

- a) Material: High grade cold rolled grain oriented silicon steel.
- b) Structure: Secondary grounded and sharp corners avoided.
- c) Lamination: Treated and coated with suitable insulations.

21. TRANSFORMER WINDING:

- a) Permanent joints : Welded/ brazed.
- b) Threaded connection: Provided with locking devices.
- c) Drying :Circulating air oven and vacuum impregnated.

22. TANK AND FITTINGS:

- a) Tank roof: Slopping type to prevent accumulation of water.
- b) Tank construction: Quality grade low speed carbon steel.
- c) Inspection hole should be provided.
- d) Cooling tubes: detachable type with ON/OFF regulating valve.
- e) Grounding terminals: 2 nos. for connecting earthing bar.

23. INSULATING OIL:

Mineral insulating oil as per IS: 335/1963. First filling should be done by the supplier.

24. LIST OF FITTNGS AND ACCESSORIES:

- i) HV bushings Inside the cable box: 3 nos.
- ii) LV bushings Inside the cable box : 4 nos.; outside the cable box : 1 no.
- iii) Conservator with oil filling hole cap and drain plug. Oil level indicator with minimum and maximum marking should be fitted in the conservator.
- iv) Thermometer pocket -1 no.
- v) 6" dial type thermometer with max. temperature indicating pointer and alarm contact. 1 no. Contacts should be wired up on a TB inside the external marshalling box.
- vi) Air release plug 1no.
- vii) Lifting lugs.
- viii) Top filter valve: 1 no.
- ix) Drain valve: 1 no.
- x) Bottom filter valve -1 no.
- xi) Breather with silica gel 1 no.
- xii) OFF circuit, 7- position tap changing switch with internal lever and locking device -1 no.
- xiii) Earthing terminals 2 nos.
- xiv) Explosion vent -1 no.
- xv) Jacking lugs.
- xvi) Double float Buchholz relay with alarm and trip contact -1 no. Relay contacts should be wired up on a TB inside the external marshalling box.
- xvii) Winding temperature indication with maximum temperature indicating pointer and alarm contacts wired to a TB in local marshalling box.
- xviii) Inspection cover.
- xix) Base channels with bi-directional rollers. -2 nos.

Item No. A

3 nos. 11KV bushing as spare for item No1

Item No. B

3 nos. LT bushing (phase) as spare for item No1

Item No. C

2 nos. LT bushing (Neutral) as spare for item No1

ITEM NO. 80 INSTALLATION & COMMISSIONING OF ITEM NO. 70 , (QTY. - 1 AU)

Installation, Testing and Commissioning of 2 nos. of 500KVA Transformers for Duliajan Power Station

GENERAL NOTES ON COMMISSIONING:

- 1. 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.
- 2. The vendor shall obtain permit to work from OIL's Engr.-in-charge before taking up commissioning works.
- 3. All tools & instruments for commissioning shall be arranged / provided by the vendor. The bidder shall depute their commissioning team and commission the transformer within 30 days after getting the Commissioning call from OIL.
- 4. Testing & Commissioning of transformer shall be carried out by specialist /engineer from manufacturer. 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.
- 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:

(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.

(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.

- 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, leveling and tightness of foundation bolts.
- iv) Check for proper tightness of transformer & its control devices, accessories, cables and earth connections.
- v) Check meters, if any.

NOTE:

For item no. 10 - 60

- 1. Quotation along with test certificates, technical catalogues / literatures shall be forwarded technical evaluation.
- 2. 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.
- 3. The bidder shall be manufacturer or authorized dealer of manufacturer of Dry Type Transformer. In case of authorized dealer, valid dealership/authorisation certificate must be submit along with bid
- 4. The bidder must quote for both (a) supply and commissioning of new 500kVA and also 750Kva dry type transformer
- 5. This transformer is to operated in parallel with the existing 11 kv, 500 kva transformer whose name plate details will be furnished along with the purchase order. The party shall supply the new transformer with matching impedance and other electrical parameters

For item no. 70 – 80

- 1. The Transformers will be used as replacement, so the dimension of the offered Transformers should match with the existing one whose dimensions are 1.85 m(L) X 1.85 m(B) X 1.85 m(H) with allowable range of \pm 10 %.
- 2. Party should submit the filled ANNEXURE-I (DATASHEET)along with the quotation.
- 3. Type test certificate for the transformer should be furnished along with the quotation.
- 4. Dimensional / wiring drawing of complete transformer including cable box (both HV and LV), Marshalling box, etc. should be furnished along with the quotation.
- 5. Offer must be complete with catalogue/ literature and drawings; otherwise the offer will be liable for rejection.
- 6. Manufacture's test certificates for all the components should be submitted to us on placement of order and before despatch of the materials.
- 7. The transformer should be offered for pre-despatch inspection and all routine tests as per IS: 2026 -1977 should be carried out in presence of OIL engineer.
- 8. 3 sets of instruction manuals for commissioning, operation and maintenance are to be provided along with the materials.
- 9. The transformer should be guaranteed for a period of 12 months after commissioning at site and the guarantee certificate duly signed by the party should be submitted along with the transformer.
- 10. Party should get the drawings approved from OIL before the start of manufacturing the transformer.
- 11. Transformer should be dispatched filled with transformer oil to the required level so that the windings does not absorb the moisture as per note No.23 of ANNEXURE-I.
- 12. Packing should be adequate to avoid transit damage and ingress of water.
- 13. In case of offer made by dealer, valid authorized dealership certificate should be enclosed with the offer otherwise the offer will be liable for rejection.
- 14. Party should offer along with the spares, (Item No. A, B & C) otherwise the offer will be liable for rejection

- 15. The bidder shall offer for both supply & Commissioning of the transformers.
- 16. The bidder or their OEM 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. Relevant documents (Purchase order/ performance certificate) shall be submitted along with the offer.
- 17. The copy of the type test and temperature test certificates carried out on a similar oil type transformer should be furnished along with the offer.
- 18. The two transformers are to be operated in parallel, so they should be with matching impedance and other electrical parameters.
- 19. Bidder to note that all items will be procured from the same source and evaluation will be done accordingly.

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

DATA SHEET(To be filled in by the Bidder)

1.	Name	of manufacturer	:	
2.	Servic	e:	:	
3.	kVA r	rating		
	a)	HV winding	kVA:	
	b)	IV winding	kVA:	
	c)	LV winding	kVA:	
4.	Rated	Voltage		
	a)	HV winding	kV:	
	b)	IV winding	kV:	
	c)	LV winding	kV:	
5.	Rated	frequency	C/S:	
6.	Nos. o	f phases	:	
7.	Conne	ections:		
	a)	HV winding	:	
	b)	IV winding	:	
	c)	LV winding	:	
8.	Conne	ection symbol		
	a)	HV - IV	:	
	b)	HV - LV	:	
9.	Tappi	ngs:		
	a)	Range	:	
	b)	Number of steps	:	
	c)	For high voltage variation / for intermed	liate :	
		voltage variation / for low voltage varia	tion.	
10.	Refere	ence ambient temperature		
	a)	Max. ambient air tempr.	°C:	
	b)	Max. daily average ambient air tempr.	°C:	
	c)	Max. yearly weighted average ambient	temp.°C:	
	d)	Min. ambient air tempr.	°C:	
	e)	Max. cooling water tempr.	°C:	
11.	Type	of cooling		:
				Contd P/2

12.	Temp	erature rise	
	a)	Top oil	°C :
	b)	Windings	°C:
13.	Total 1	loss at rated voltage at principal tapping	s
	and ra	nted frequency.	kW:
14.	Comp	onent losses (IS Tolerance)	
	a)	No load losses at rated voltage at principal	1
		tappings and rated frequency	kW:
	b)	Load loss at rated current at principal	
		tappings at 75 ° C	kW:
15.	Imped	lance voltage at rated current for princip	oal tapping (IS Tolerance)
	a)	HV - IV	(%):
	b)	HV - LV	(%):
	c)	IV - LV	(%) :
16.	React	ance at rated current and rated frequen	cy.
	a)	HV - IV	(%):
	b)	HV - LV	(%):
	c)	IV - LV	(%) :
17.	No lo	ad current at rated voltage	(%):
	and r	ated frequency.	
18.	Input	to cooling plant	:
19.	Insula	tion level	:
	a)	Separate source power frequency voltage	
		Withstand	
		i) HV winding	kV rms:
		ii) IV winding	kV rms:
		iii) LV winding	kV rms:
	b)	Induced over voltage withstand	
		i) HV winding	kV rms:
		ii) IV winding	kV rms:
		iii) LV winding	kV rms:
	c)	Full wave lighting impulse withstand volta	
		i) HV winding	kV peak:
		ii) IV winding	kV peak:
		iii) LV winding	kV peak:

d) Switching impulse withstand voltage	
i) HV winding	kV peak:
ii) IV winding	kV peak:
iii) LV winding	kV peak:
20. Stabilizing/ Tertiary winding	
a) Rated voltage	kV:
b) Normal voltage	kVA:
c) Normal rating (expressed in % of main wind	ding rating
in the case of stabilizing winding)	(%):
d) Delta closed inside /outside	
(in the case of stabilizing winding)	
21. Efficiencies at 75 ° C at unity power factor:	
a) At full load	(%):
b) At ¾ full load	(%):
c) At ½ full load	(%):
22. Regulation at full load at 75 ° C	
a) At unity power factor	(%):
b) At 0.8 power factor. lagging	(%):
23. Equipment for ONAN or ONAF/ONAN cooling	
a) State:	
i) Radiators on main bank	:
ii) Separate cooler bank	:
b) State ONAN rating in case of mixed cooling	:

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. **SDI8999P16** 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 risibility 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.
- 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

 The Bidder/Contractor undertakes to demand form 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)

- 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

Γ

- 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 intensions.

l	
R. BARMAN SR. MANAGER MATERIALS (IP)	
For the Principal	For the Bidder/Contractor
Place. Duliajan.	Witness 1:
Date 18 10 2015	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 have been filled in by the bidder 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 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

SI 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 Payment terms of NIT (if applicable) otherwise 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 guideliness)	
19	Whether filled up the bank details for online payment as per Annexure GGG	

NOTE: Please fill up the greyed cells only.

(TO BE FILLED UP BY ALL THE VENDOR IN THEIR OWN LETER 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	:	
our above mentioned accoun	nt directly and we shall not hold	Oil India Limited can be remitted to Oil India Limited responsible if the ount due to incorrect details furnished
	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.