ANNEXURE-I

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

INVITATION FOR BID
NATIONAL COMPETITIVE BID

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

E-TENDER NO.	BID CLOSING / OPENING DATE	ITEM & QTY.
SDI3281P17/P3	**02.02.2017**	**MANIFOLD – 02 Nos.**
SDI3346P17/P2	**02.02.2017**	**ANESTHESIA WORKSTATION – 01 No**
SDI3348P17/P2	**02.02.2017**	**PNEUMATIC PRESSURE CONTROLLER – 15 Nos.**
SDI3352P17/P4	**02.02.2017**	**CREW CABIN-05 Nos.**
SDI3356P17/P3	**02.02.2017**	**NEURA LOG SCANNER – 1 No.**
SDI3301P17/P3	**02.02.2017**	**PIPE BENDING MACHINE – 1 No.**
SDI3400P17/P3	**02.02.2017**	**PMCC PANEL – 04 NOS**
SDI3393P17/P3	**02.02.2017**	**PORTABLE ULTRASONIC FLOWMETER – 08 Nos**
SDI3392P17/P3	**02.02.2017**	**SKID MOUNTED LIGHTING FEEDER HUT – QTY = 02 Nos**

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.

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. : **SDI3351P17 DT: 16.12.2016**

Tender Fee : **Rs 1,000.00**

Bid Security : **Applicable**

Bidding Type : **SINGLE STAGE TWO BID SYSTEM**

Tender Type : **Open Tender**

Bid Closing / Opening on : **As mentioned in the e-portal**

Performance Security : **Applicable**

Integrity Pact : **Applicable**

OIL invites Bids for **Supply, Installation and Commissioning of 02 Nos Panel & 02 Nos 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 of Indigenous 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 = 0374-2807178, 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.

OIL Bank Details :

	Bank Details of Beneficiary	
a	Bank Name	STAE BANK OF INDIA
b	Branch Name	Duliajan
c	Branch Address	Duliajan, Dist-Dibrugarh
d	Banker Account No.	10494832599
e	Type of Account	Current Account
f	IFSC Code	SBIN0002053
g	MICR Code	786002302
h	SWIFT Code	SBININBB479
i	Contact No.	9435554859
j	Contact Person Name	Mr. K.L.K.Banik, AGM
k	Fax No.	0374-2802729
l	Email Id	sbi.02053@sbi.co.in

c) "General Terms & Conditions" for e-Procurement as per Booklet No. MM/LOCAL/E-01/2005 for E-Procurement of Indigenous 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) Amendments to the NIT after its issue will be published on OIL's website only. Revision, clarification, addendum, corrigendum, time extension etc. to the tender will be hosted on OIL website only. No separate notification shall be issued in the press. Prospective bidders are requested to visit website regularly to keep themselves updated.

g) 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).

h) 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.

1.0 Vendors having OIL's User ID & password may pay Tender Fee on-line through OIL's electronic Payment Gateway upto one week prior to the Bid closing date (or as amended in e-portal).

Vendors who do not have OIL's User ID & password, may generate User ID & password online by the Vendor by using the link for supplier enlistment given in OIL's e-tender

portal and then pay Tender Fee on-line through OIL's electronic Payment Gateway upto one week prior to the Bid closing date (or as amended in e-portal).

Alternatively application showing full address/email address with Tender Fee (Non-refundable) of Rs. 1,000.00 in the form of crossed "Payee Account only "Bank Draft/Bankers' Cheque drawn by Bank and valid for 90 days from the date of issue of the same or in the form of Indian Postal Orders payable to the OIL is to be sent to DGM-Materials, Oil India Limited, P.O. Duliajan, Assam-786602. Application shall be accepted only upto one week prior to the Bid closing 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.

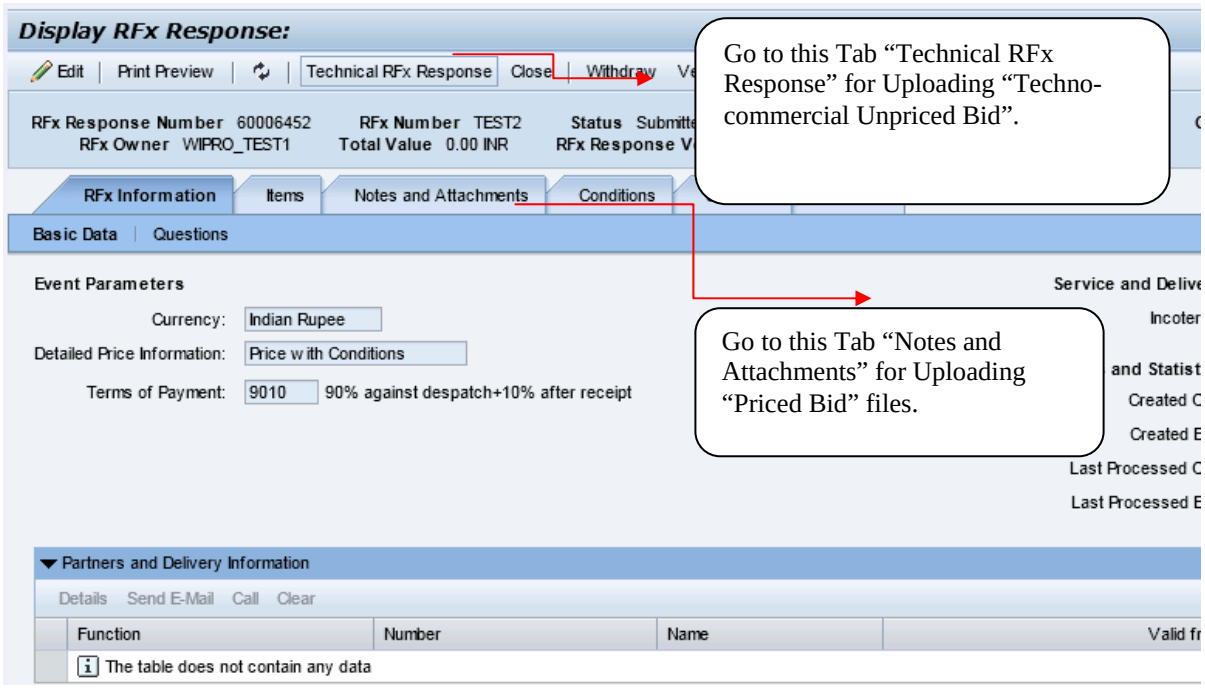
NOTE:
In case of MSE/PSUs/ Govt. Bodies / eligible institutions etc., they shall apply to DGM-Materials, Oil India Limited, P.O. Duliajan, Assam-786602 for waiver of Tender Fee upto one week prior to the Bid closing date (or as amended in e-portal).

2.0 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.

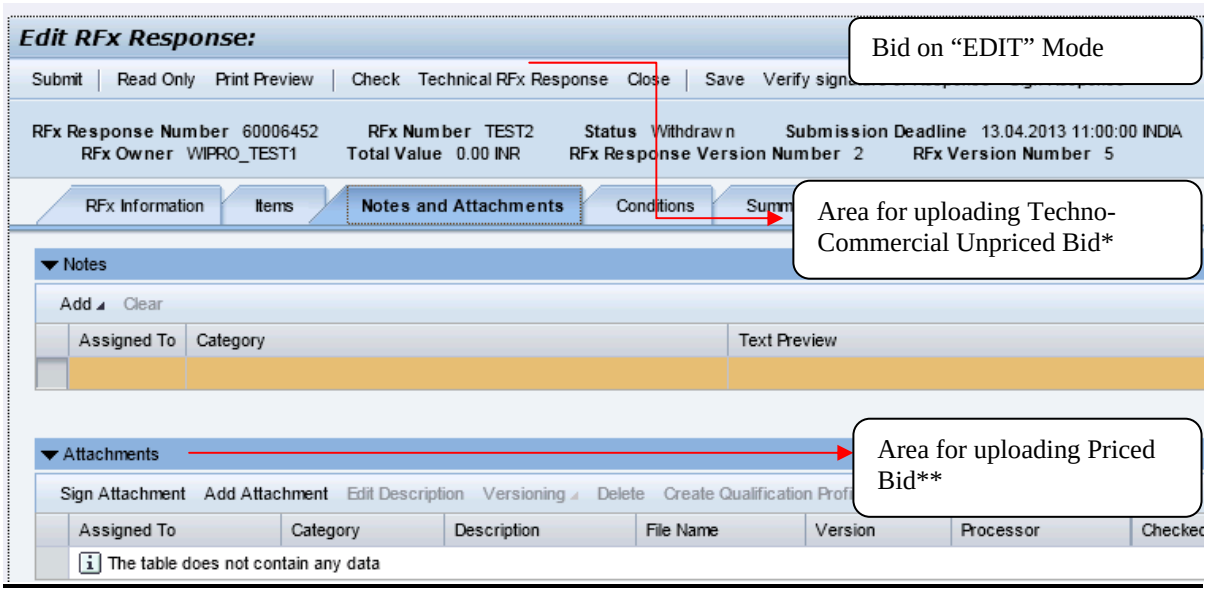
2.1 Please ensure that Technical Bid / all technical related documents related to the tender are uploaded in the Technical RFx Response-> User - > Technical Bid only**.** The "**TECHNO-COMMERCIAL UNPRICED BID**" shall contain all techno-commercial details **except the prices**. **Please note that no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

2.2 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".**

2.3 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.



<u>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:</u>



<u>Note :</u>

* 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.

3.0 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 **DGM-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 Duplicate.

4.0 Benefits to Micro & Small Enterprises (MSEs) as per OIL's Public Procurement Policy for Micro and Small Enterprises (MSEs) shall be given. Bidders are requested to go though ANNEXURE – I of MM/LOCAL/E-01/2005 for E-Procurement of Indigenous Tenders for more details. MSE bidders are exempted from submission of Tender Fees and Bid Security/Earnest Money provided they are registered for the items they intend to quote.

5.0 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.

6.0 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.

7.0 Bid must be submitted electronically only through OIL's e-procurement portal. Bid submitted in any other form will be rejected.

8.0 **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.

9.0 **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

10.0 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 of Indigenous Tenders elsewhere, those in the BEC / BRC shall prevail.

11.0 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.

12.0 Please do refer the User Manual provided on the portal on the procedure How to create Response for submitting offer.

13.0 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:

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

Yours Faithfully

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

Annexure - CCC

Tender No & Date: SDI3351P17 DT: 16.12.2016

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.

Criteria	**Complied / Not Complied. (Remarks if any)**
1.0 BID REJECTION CRITERIA (BRC): The bid shall conform generally to the specifications, 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. **A) TECHNICAL:** 1.Bidder shall be an OEM or their channel partner/authorized dealer of 11KV VCB Panel, Transformer and LT Panel. In case of bidder offering on behalf of OEM, they shall submit copy of valid dealership certificate/authorization letter from their OEM along with the offer. 2. The bidder or their OEM shall have experience in design, manufacturing, testing, supply, installation and commissioning of minimum 1 sets of 11KV, HT Panel with VCB (Vacuam Circuit Breaker), 1 Nos 11KV/415V, 500KVA or higher rated transformer and 1 sets of 415V PCC/PMCC panels with ACB/MCCB (Air Circuit Breaker/ moulded case circuit breaker) in any Central Govt./Govt. PSU/Public Limited Companies during last 5 years as on bid closing date of this tender. 3 1. The bidder) shall have type test certificate for their designed, manufactured and supplied 11KV, HT Panel with VCB as per IS: 13118, 11KV/415V transformer as per IS-11171/2026 and 415V PCC/PMCC panels with ACB/MCCB as per IS-8623 from reputed test house accredited by National Accreditation Board for testing and calibration Laboratories (NABL), India. Bidder shall submit copies of all type test certificate for the following tests for above HT,LT panel and Transformer. Authorized dealers shall submit their OEM's credentials in this regard.	

i) Short time current withstand test (31.5 kA for 1 sec. for HT Panel and 50kA for 1 sec. for LT Panel) ii) Temperature rise test iii) Ingress Protection test 4.Documentary evidence such as valid dealership/authorization certificate, copy of purchase order with invoice copy/ performance certificate/ commissioning report etc. and other necessary details towards test certificates etc. for items (2), (3) & (4)of the bidder or their OEM shall be furnished with the offer. **B) FINANCIAL:** a) Annual Financial Turnover of the bidder during any of preceding 03 (three) financial / accounting years from the original bid closing date should be at least **Rs. 92.04 Lakhs.** b) Net Worth of the firm should be Positive for preceding financial / Accounting year. <u>Note -For (a) & (b):</u> Considering the time required for preparation of Financial Statements, if the last date of preceding financial / accounting year falls within the preceding six months reckoned from the original bid closing date and the Financial Statements of the preceding financial / accounting year are not available with the bidder, then the financial turnover of the previous three financial / accounting years excluding the preceding financial / accounting year will be considered. In such cases, the Net worth of the previous financial / accounting year excluding the preceding financial / accounting year will be considered. However, the bidder has to submit an affidavit/undertaking certifying that 'the balance sheet/Financial Statements for the financial year …..…… (As the case may be) has actually not been audited so far'. Note: For proof of Annual Turnover & Net worth any one of the following document must be submitted along with the bid:- i) A certificate issued by a practicing Chartered Cost Accountant (with Membership Number and Firm Registration Number), certifying the Annual turnover & Net worth as per format prescribed in ANNEXURE-II. OR ii) Audited Balance Sheet along with Profit & Loss account." **C) 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. 3,68,200.00** in OIL's prescribed format as Bank Guarantee or a Cashier's cheque or Demand Draft 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 7 months from Bid closing date. (i.e. upto 02.09.2017). Cashier's cheque or Demand Draft shall be valid for minimum 90 days or as per RBI's guidelines, drawn on "Oil India Limited" and payable at Duliajan, Assam**

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.

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:

Successful bidder will be required to furnish a Performance Security @10% of the order value. The Performance Security must be valid for 12 months from the date of commissioning or 18 months from the date of despatch whichever concludes earlier. Bidder must confirm the same in their bid. Offers not complying with this clause will be rejected.

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.
(**f) Delivery: Maximum acceptable delivery of the material is 10 months from the placement of order.**
INSTALLATION & COMMISSIONING: Within 01 months after receipt of clearance of site.

2.0 BID EVALUATION CRITERIA (BEC)
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. **A) TECHNICAL:** 1. The manufactured product should be strictly as per OIL's tender specification. 2. All the items will be procured from the same source and evaluation will be done accordingly. **B) COMMERCIAL:** i). To evaluate the inter-se-ranking of the offers, Assam Entry Tax on purchase value will be loaded as per prevailing Govt. of Assam guidelines as applicable on bid closing date. Bidders may check this with the appropriate authority while submitting their offer. ii) Priced bids of only those bidders will be opened whose offers are found technically acceptable. The technically acceptable bidders will be informed before opening of the "priced bid". iii). To ascertain the substantial responsiveness of the bid OIL reserves the right to ask the bidder for clarification in respect of clauses covered under BRC also and such clarifications fulfilling the BRC clauses in toto must be received on or before the deadline given by the company, failing which the offer will be summarily rejected.	

NOTE:

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

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ANNEXURE-IA

TECHNICAL SPECIFICATIONS WITH QUANTITY

Tender No & Date: SDI3351P17 DT: 16.12.2016

	Complied / Not Complied. (Remarks if any)
ITEM NO. 10 **Supply of 11 KV VCB Panels for proposed MTDC Substation – QTY = 01 NO** Technical specifications of 11KV VCB Panel: Supply, installation and commissioning of 11 KV VCB Panels comprises of the following specifications: The 11 KV Switchgear Panel comprising of indoor type VCB panel suitable for solidly grounded system, fully factory built and assembled for direct installation. Designed, manufactured and tested in accordance with IEC 62271-100/200. Circuit breaker and cubicle must have type test certificate from CPRI/NABL accredited laboratory for design and performance as per above standards. The VCB (cubicle and circuit breaker) panel should be made of steel clad, free standing, floor mounting, dust and vermin proof and horizontal isolation horizontal draw out, compartmentalized type, indoor switch board in standard execution with VCB. The panel shall be provided with 11KV,3 phase 50 HZ air insulated copper bus bar and suitable for short circuit capacity 31.5 KA for 3 second. CUBICLE AND CIRCUIT BREAKER DETAILS: 1.0 CUBICLE. 1.1 The draw out type circuit breaker cubicles should be fabricated using high quality CRCA sheet steel of minimum thickness 2.5 mm for load bearing members and 2.0 mm for other sheet work. The sheet metal should be given seven/ nine tanks anti corrosion treatment & then powder coated colour- SIEMENS GREY. The panel shall comprise of the followings: 3 nos. 1250 A VCB incomer feeder. 1 no. 1250 A VCB bus coupler 3 nos. 800 A VCB outgoings 1.2 The totally metal enclosed panel shall be compartmentalized with internal positioning by insulated material of epoxy reinforced fibre glass to constitute the followings: a) Bus bar compartment b) Circuit Breaker Compartment. c) CT and Cable compartment. d) Relay & metering compartment (LT compartment). The Circuit Breaker & LT compartment shall be of front open type.	

2.0 Bus-Bar Compartment:

Bus bar shall be rectangular in cross section and made from electrolytic grade electro tinned copper having 99.99% high conductivity. Bus-bar current rating shall be1250Amp. Fault current rating- 50 kA. Heat shrinkable sleeve insulation of 11KV voltage grade should be provided on bus-bar, its risers & connections and shall be marked in different colour codes for identification of three different phases(R, Y, B). Thickness of bus-bar sleeve shall be 3 mm and shall be made of Raychem RPG 11 kV grade or similar type. Bus-bar arrangement should be such that in future similar cubicles can be connected with this cubicle. Cast epoxy insulators supports for bus-bar & cable termination links designed to withstand full short circuit current at specified fault level for 3 seconds shall be provided.

3.0 Circuit Breaker Compartment:

The circuit breakers shall be mounted on horizontal draw out truck. The circuit breaker truck should have horizontal isolating and horizontal draw-out type system. The front door shall have view glass to facilitate observation of mechanical ON/OFF indication and operation counter.
The draw out truck shall have the following positions:
a) Isolated (b) Test (c) Service

4.0 CT and Cable compartment:

The CT and the incoming and outgoing feeder cable compartment shall be in the rear. The LT control cable terminal arrangement shall be provided in the rear side in a separate box so as to have isolation from high voltage terminals. All the cable entry plates shall have removable gland plates. The CT required for metering and protection shall be as per IS-2705 & IS 4201 and shall be of adequate size and its insulation will be epoxy cast resin type.
Make of the CT shall be as per acceptable make list of Annexure-I

For Incomer Feeder:

Metering CT 15VA, Class-1, ratio: 400-200/5-5. Protection CT 15VA, Class-5P10, Accuracy class: 0.5 Ratio: 400-200/5-5 suitable directional Relay is required for over current, short-circuit & earth fault protection.

For Transformer Feeder:

Metering CT- 15VA, Class-0.5, ratio: 100-50/5-5. Protection CT- 15VA, Class-5P10, Ratio-100-50/5. Suitable non directional relay is required for over current, short circuit & earth fault protection

For outgoing Feeder:

Metering CT- 15VA, Class-1, ratio: 100-50/5-5.Protection CT 15VA, Class-5P10, accuracy class: 0.5. Suitable non directional relay is required for over current, short circuit & earth fault protection.

5.0 Relay & metering compartment(LT compartment):

The L.T. chamber of suitable height shall be positioned on the top of the panel & at the front.

Protective relay, measuring equipments and auxiliary controls along with the switches and indications are to be accommodated in the L.T. Chamber. Three nos. of bright steel hinges shall be used on front door with door opening limited to 135Degree (approx). All devices in the LT box are to be marked with permanent labels. Panel rating plate shall be provided on the door.
Control wiring and CT wiring shall be done using single core, PVC insulated, stranded copper cable of 1100V grade and 2.5sqmm size. All cables and wires shall be numbered with suitable ferrules. Suitable lugs shall be used for control wiring and ring type lugs shall be used for CT wiring. All wires shall terminate on suitable Terminal Blocks. All TBs shall have 10% spare terminals. TBs shall be marked. Reinforced flexible conduit shall be used for wiring and PVC spiral shall be provided on exposed wires near the door hinge in LT box. Colour coding of control cables shall be followed as required by ISI. Control cables shall be approved by IS-694.

6.0 PANEL METERING AND INDICATION EQUIPMENT:

Microprocessor based digital multifunction energy meter with accuracy class 0.5 and with RS485 port with MODBUS protocol for data logging/downloading shall be provided for all panels. The meter shall be of size 96mmx96mm and shall measure the following electrical parameters: Frequency, Voltage, current, power factor, KVA, KVAr, PF, KWH and harmonic components of current, voltage. The multifunction meter shall have inbuilt selector switch and memory to store data for minimum 75 days. The maker of multifunction meter shall be as per acceptable make list of Annexure -I.

(a) Breaker ON and OFF/TNC switch (b) Trip circuit healthy push button(c) LED type Indication lamp for each panel for: (i) CB Close, (ii) CB open, (iii) Trip on fault, (iv) Trip circuit healthy v)Spring charged LEDs shall be LVGP & industrial type.
Make of LED shall be as per acceptable make list of Annexure -I

7.0 Closing and tripping:

i) Manually: Spring charging, closing and tripping.
ii) Electrically: Motorised Spring charging, closing and shunt tripping.

8.0 Dry type cast resin V.T: One in each incomer panel shall have cast resin, draw out type Voltage Transformer(One Additional winding of open delta for directional E/F relay) V.T Ratio = (11kV / 110V), Burden - 100VA, Accuracy class - 0.5 as per IS 3156(Part I,II,III) and protected with HRC fuse on HT & MCB on LT side. VT shall be horizontally draw out type and mounted on the top of the panel. Cable entry shall be from bottom side.
Make of the VT shall be as per acceptable make list of Annexure-I

9.0 CONTROL SUPPLY:

Control power supply shall be taken from 1 no battery bank for 24 V AC with battery charger. It consists of the following:
(i) Each cell voltage: 2.0 V, 200 AH, sealed maintenance free (SMF)
(ii)12 Nos. batteries shall be connected to give 24 V DC
(iii)12 Nos. cells shall be kept in insulated type rack and connected with silicon insulated Cable with terminal
(iv)Incomer to battery charger shall have three phase supply with 32Amps 3 pole MCCB with overload, short circuit protection.
(v) Charging current: 0-20 A
(vi)Float and boost charging facility shall be available.

(vii)Outgoing shall be double pole 20A MCBs-3 Nos
(viii)Protection for control circuit shall be provided.
Make of battery and charger shall be as per acceptable make list of annexure -I

10.0 EARTHING:

Panel shall have proper protective earthing terminals for connection to external earth cable. Earthing connection between truck and cubicle shall be provided by means of sliding contact. The truck earthingshould be arranged in such a way that the truck is earthed in isolated position when inserted. While the truck is being withdrawn, the earthing connection shall not be interrupted until the truck has moved past the isolated position.

10.1 The panel shall be provided with 2nos, 80 W space heaters in each panel and adjustable thermostats of suitable rating for heater temperature monitoring along with protective HRC fuses and ON/OFF switch.

10.2 The front door shall have glass window to facilitate observation of mechanical ON/OFF indication and operation counter.
10.3 Two nos. cubicle lamps (15 W CFL) in each cubicle shall be provided along with switch.

11.0 Safety Interlock:

The following minimum safety devices shall be provided to ensure the safety of operating personnel:
a) Individual explosion vents for Bus bars/Breaker/Cable and CT chambers on the top of the panel to let out the gases under pressure generated during unlikely event of a fault inside the panel.
b) Cubicle with front door/panel pressure tested for arc faults.
c) CB and metal enclosure earthed in accordance with latest IS published by BIS (IS-2516, part-1, section -1)
d) Self operating shutters, shielding live fixed contacts, shall be provided which closes automatically when truck is withdrawn to test position. Locking arrangement should be provided for the shutters.
e) Breaker shall not be moved in ON condition from service to test position & vice versa.
f) The CB cannot be switched ÓN' when the truck is in any position between test and service.
g) All nut & bolts used inside the panel should be of high tensile, bright zinc plated, hexagonal headed, metric size, manufacture to DIN 931 from 8.8 grade of steel, tensile strength minimum 80kgf/SQ.MM, coarse threaded with two nos. bright zinc plated flat and spring washers.
h) Lifting hooks shall be provided for the panels.

I) Panel Markings:

The switchgear panel shall have the following identification markings in a permanent manner:
a) Panel name both in front and rear side.
b) Caution boards conforming to IS-2551 both in front and rear sides.
c) CT specification name plate on CT and at panel cover at rear.
d) Incoming & outgoing cable box.
The markings and identifications of conductors, apparatus terminals shall be as per IS:5578 & IS:11353.

12.0 Cable Terminal box:

HT cable boxes with termination links for termination of incoming and outgoing HT cables should be provided in the rear and side of the unit. Rear incoming cable box should be of suitable size for safe entry of two nos. of incoming cables and should have suitable terminal links for safe termination of both the incoming cables for loop in/ loop out connection as is done in case of ring main unit. The termination arrangement should be such that it should be possible to disconnect one cable in the event of fault in that cable and power-up the unit with the other incoming cable. Link rating shall be 600amp (min). One no. outgoing cable will be terminated in the cable box mounted on side. Size for incoming and outgoing cables shall be 3 x 240sq. mm, 11kV grade, XLPE insulated, PVC sheathed, Aluminium Conductor, Armoured cable. Suitable nos. of detachable gland plates with suitable size of heavy duty cable glands shall be provided in the bottom entry plates of both the cable boxes. Separate gland plates shall be provided for both the incoming cables in the incoming cable box.
Rear entry LT cable termination box with suitable single compression cable glands for heater supply cable and control cable from transformer marshalling box should be provided.

13.0 Site Condition:

a) Maximum Ambient air temperature: 40 º C
b) Minimum ambient air temperature: 2.5 º C
c) Maximum humidity at site (at 40 º C): 98 %
d) Surrounding atmospheric condition: Humid
e) Site altitude: 150 mtr.

14.0 CIRCUIT BREAKER DETAILS:

The VCB shall have the following features:

a. Horizontal draw out type with Horizontal Isolation mounted on truck with rollers.
b. Truck cover with two handles and fixed to truck frame with four screws.
c. Truck earthing with welded boss.
d. Insulation bushings shall be epoxy cast resin type and suitable for ambient conditions mentioned above.
e. Manual & motor operated spring charging system. Motor working voltage 230 V AC, 50 Hz
f. 11kV, Three pole, vacuum type 1250 A continuous rating for incomer and 1250 A/800A continuous rating for outgoings, 31.5 kA fault level.
g. Auxiliary contacts (6 NO + 6NC).
h. Operation counters of 5 digits.
i. High mechanical endurance of 50,000 (minimum) operations.
j. Mechanical ON/OFF indication.
k. Spring FREE/ CHARGED indication.
l. Position indicator # SERVICE/ TEST/ ISOLATE.
m. Low maintenance.
n. Manual ON and TRIP button.
o. Operating sequence: O #0.3 sec # CO # 3 min # CO.
p. Shunt trip coil, closing coil: 110v DC rated.
q. Insulation level:
Rated insulation level at power frequency: 28KV
Peak withstand voltage: 75 kV
r. Short time withstands current (3 s):31.5 kA
s Rated breaking capacity:31.5 kA (rms)
Rated making capacity: 78.75 kA (peak)

15.0 PROTECTION SCHEMES:

1.0 Each incomer feeder panel shall have numeric relay with following protections/features:
i. Directionl over current(67,67N)
ii. non directional -overcurrent protection (50, 50N,51,51N)
iii. Sensitive dir/non directional ground fault protection
iv. Overload protection (49)
v. Under/Overvoltage protection (27/59)
vi. Under/Over frequency protection(81O/U)
vii. Breaker failure protection (50BF)
viii. Phase unbalance or negative sequence protection (46)
ix. Auto reclosure (79)
x. Trip circuit supervision (74TC)
xi. Fault recorder
xii. Disturbance recorder and sequential events recorder
xiii. RS-232/485 communication

2.0 Outgoing feeder panel: Each panel shall have Numeric relay with following protection/feature:

i. 3phase over current (50/51)
ii. Earth/overcurrent(50/51N)
iii. Negative phase sequence overcurrent (46)
iv. Thermal overload(49)
v. Broken conductor detection(46BC)
vi. Circuit breaker failure detection(50BF)
vii. Fault recorder (25)
viii. Disturbance recorder(5)
ix. Events recorder(250)
x. RS-232/485 communication
xi. Trip circuit supervisory relay- 1 no.

3.0 Protection of Bus-coupler: Same relay with same protection as outgoing feeder having Synchro-check facility for paralleling of feeders. Make of numerical relay shall be as per acceptable make list of Annexure -I

16.0 GENERAL NOTES:

1. Vacuum interrupter and circuit breaker should be of the same make.
2 .VCB manufacturer of panel must have powder coating facilities for painting of panel.
3. Height of the panel shall not exceed 2.4 m.
4. Manufacturer of 11KV, VCB panel shall have the testing facilities to carry out the routine tests of the VCBs panel as per BIS-13118 in their manufacturing works.
5. Type test certificate for dry type Voltage transformer & cast resin type current transformer shall be submitted.
6 The H.T switchgear and the components should confirm the relevant Indian Standard (with latest amendments) and type tested by CPRI/NABL accredited laboratory for desired performance. Type test certificates should be submitted with the quotation.
7 Bidder has to filled up the DATA SHEET enclosed (Annexure-II) otherwise the offer will not be considered.

8. The following documents are required to be submitted with the offer. a. Detail as per specification mentioned above. Specific comment against each point is required. b. Copy of report of type tests done on similar panel & VCB at CPRI/NABL accredited laboratory. c. General arrangement drawing of the panel. d. Guarantee confirmation as per point no. 5 of general notes for HT panel. e. An undertaking from the panel manufacturer stating that in the event of an order on the party the panel manufacturer will supply the panel through the party as per specifications of the tender and order. f. Detail foundation drawing, drawing of panel with detail of HT and LT cable boxes showing termination details, wiring diagram and complete bill of material must be submitted to OIL for approval within 60 days after placement of the order. The manufacture of panel should start after approval of the drawings by OIL. 9 Following drawings and literatures are to be supplied with the supply: a. Four sets of installation, commissioning & operation manual of the Panel and Vacuum Circuit Breaker (VCB). b. Four sets of literature of main components like protection & auxiliary relays c. Four copies of general arrangement, schematic diagram and wiring diagrams. d. Two copies of foundation drawings. e. Four sets of test report containing result of tests done at manufacture's work during inspection. f. Four copies of Guarantee certificate duly signed by the party. g. Recommended list of spares with part no. & price for maintenance of panel. h. VCB, which are switching dry type transformer, the circuit breaker should have the surge suppressor/snubber circuit in- build with the VCB. 5.0 TEST AND INSPECTION: 5.1 The Circuit breaker and cubicle must have type test certificate from CPRI/NABL accredited laboratory for design and performance as per relevant IS. 5.2 Routine tests on switchgear, relay including primary & secondary injection tests in accordance with IS shall be carried out at the manufacturers works which shall be witnessed by OIL engineer. 5.3 Equipment shall be inspected by OIL engineer at manufacturer's premises prior to dispatch. 5.4 The supplier will give 30 day advance intimation to enable depute OIL representative for witnessing the acceptance and routine tests. 6.0 Warranty: The goods/ equipment shall be of best quality and workmanship. The equipment shall be guaranteed for 12 (Twelve) months from the date of commissioning against defects arising due to material, workmanship or design. Relay will also be included in this guarantee.	
ITEM NO. 20 **Installation & Commissioning of 11 KV VCB Panels for proposed MTDC Substation – 01 AU** Installation, testing and commissioning includes fixing of two numbers earth electrodes, making necessary earth connection from Panel to earth electrode, Termination of incoming	

cable at Panel with proper size of gland and lugs with testing of all ougoings. a) Earthing: Supply and burying heavy duty, sealed CPRI approved chemical electrode with suitable backfilling chemical for soil treatment of size 80mm dia 4 mm thick 3000mm length and providing masonry enclosure size 600mmx 600mm x600mm with RCC cover plate having 2nos. metallic hooks for lifting cover and funnel type arrangement for watering pipe etc. complete as required - Minimum 2 Nos. Value of earth resistance shall be maintained to be equal to or less than 1.0 Ohms when connected all the earth electrodes together.	
ITEM NO. 30 **Supply of 1 no 415V,50Hz, 3 phase 4 wire LT PCC Panel for proposed MTDC Substation. – QTY = 01 NO** Scope : This Section covers the detailed requirements of, PCC Panel for 415V, 3 phase 50Hz 4 wire system. These shall be branded and/or assembled/ fabricated from a factory of repute. All switchgears shall be fully rated at an ambient of 400 C. Type of Panel : (i) The medium voltage switch board panel shall comprise of any one of the following types of switchgears or combination thereof as specified. (ii) Air Circuit breakers draw out type (iii) MCCBs of suitable Ics ratings and MCCBs shall invariably be Current Limiting type. Features like Double Break, Positive Isolation functions shall be preferred. (iv) The Panel shall be indoor type having incoming sectionalisation and outgoing switchgears as specified. The design shall be cubical type. The degree of enclosure protection shall be IP 52 as per IS: 8623. General Construction : The PCC shall be floor mounted free standing totally enclosed and extensible type. The PCC shall be dust & vermin proof and shall be suitable for the climate conditions as specified. The design shall include all provisions for safety of operation and maintenance personnel. The general construction shall conform to IS: 8623/1993 for factory assembled switch board. Cubical Type Panels : (i) Cubical type panels shall be fabricated out of sheet steel not less than 2.0 mm thick. Wherever necessary, such sheet steel members shall be stiffened by angle iron frame work. General construction shall employ the principle of compartmentalization and segregation for each circuit. (ii) Unless otherwise approved, incomer and bus section panels or sections shall be separate and independent and shall not be mixed with sections required each feeders. (iii)Each section of the rear accessible type panel shall have hinged access doors at the rear. Overall height of the panel shall not exceed 2.4 meters. (iv) Operating levers, handle etc. of highest unit shall not be higher than 1.7 meters. Multi-tier mounting of feeder is permissible. (v) The general arrangement for multi tier construction shall be such that the horizontal tiers	

formed present a pleasing and aesthetic look. The general arrangement shall be approved before fabrication. Cable entries for various feeders shall be either from top or bottom.
(vi) Through cable alleys located in between two circuit sections ,either in the rear or in the front of the panel. All cable terminations shall be through detachable gland plates.
(vii)There shall be separate detachable gland plate for each cable entry so that there will not be dislocation of already wired circuits when new feeders are added. Cable entry plates shall therefore be sectionalized. The construction shall include necessary cable supports for clamping the cable in the cable alley or rear cable chamber.
(viii)Cubicle panels with more than 1000 Amps bus shall be made of tested structural modular sections.

The PCC Panel shall have the following features:

(i) Panel shall be indoor, cubicle type with provision of extension of panels in future and Panel shall be built on Self supporting, floor mounting, rigid framework.
(ii) The frame of the panel shall be sufficiently strong and made of minimum 50 x 50 x 6mm MS angle iron with intermediate members of suitable section & size. The frame shall be mounted on a bottom structure made from 75 x 40mm MS channel.
(iii) The maximum size of the panel board shall not be more than 6000mm (L) x 600mm (B) x 1800mm (H).
(iv) Panel shall be sheet steel clad, cubicle type made of 2.0mm thick MS CR sheet and panel shall be Dust / vermin proof and weatherproof with IP52 degree of protection.
(v) Bottom detachable gland plates made from 3.0mm thick MSCR sheet shall be provided for all cable entries. Height of bottom detachable gland plate shall be 450 mm from floor level.
(vi) The entire metal work shall be treated with nine tank antirust treatment as per IS and then powder coated in DA Grey colour. Documentary evidence confirming the same shall be provided with the offer.
(vii)Non-deteriorating Neoprene rubber gaskets shall be provided between all joints and Panel shall be designed for Ambient of 45°C (Max)/ 5°C (Min) and Humidity-95%.
(viii) All feeders shall be suitable for operation from front side and shall have provision of inspection from backside and all panel doors shall be provided with single turn latches for opening / closing.
(ix) Internal barriers shall be provided between cubicles to provide Form-2 separation as per IEC to prevent transmission of flashover from one panel to other panels.
(x)Danger plates shall be fitted on front and back of the panel and Legend plates of the feeders shall be provided in the front as well as at back of each feeder.
(xi) Adequate nos. of lifting lugs shall be provided on top and Ventilation louvers shall be guarded with wire mesh.
(xii) Internal earthing shall be provided for all equipment having earthing terminal and panel doors with suitably rated, PVC insulated, flexible copper earth wires or copper braids of suitable rating as per IS.
(xiii)Earthing bus shall be provided at bottom of the panel. Earthing Bus shall be made of 50x5 mm GI straps with 80 micron galvanisation thickness. Brought out studs shall be provided on two sides complete with suitably sized zinc passivated double nuts and spring washers. Earth bus shall have holes drilled for connection with main earth electrodes and earth cable/ strap of outgoing feeders. All feeders shall be adequately connected to the earth bus.
(xiv)BIS ref.: Confirming to IS-8623, IS 13947 and Legend LT POWER CONTROL CENTRE shall be provided at the top centre.

2.0 PANEL COMPARTMENTS / SECTIONS:

The panel shall broadly have the following compartments / sections.
A) Incomer section
B) Bus chamber
C) Outgoing section
D) Cable chamber / cable alley

A) INCOMER SECTION:

2 nos. 2000 Amps EDO Four Pole Air Circuit Breakers housed in a sheet steel enclosure and as specified in sec 3.0, and 1 nos 2000A bus coupler

Legend: 1. INCOMER 1
2. INCOMER 2

The incomer units shall be complete with brought out terminals of suitable rating and single compression cable gland suitable for 3 nos. x 3½ C x 240 mm², PVCA, Al cable provided on the bottom detachable gland plate. Suitably rated tinned copper lugs for all incoming cable connections shall be supplied with the brought out terminals.

Incoming Feeder Instruments

Each incoming feeder shall comprise the following instruments in an instruments panel complete with all necessary interconnections, fine wiring and duly tested:

1. Three phase digital Multifunction Energymeter with maximum,minimum and average value for voltage,current,power values,KWH,frequency,power factor and THD.
Voltage range: 0-500V, current range :0-2000 A,SIF-96,class of accuracy 0.5,CT operated with 2000/5 CTs(15VA, 0.6kV, Class1)
Qty: 1 no.

2. HRC Instrument Fuse Holders fused 4 Amps,SM type
Qty: As per ckt

3. LED type Indication Lamps for 'Phase Healthy' indication in Red, Yellow and Blue in colour,
Qty: 3 nos.

Auxiliary power supply of digital multifunction energymeter shall be 230V and shall be connected with separate HRC fuse and link system.
B) BUS CHAMBER

The bus chamber shall be sheet steel clad having front and rear bolted covers and shall consist of 1 set TP & N electrolytic grade, high conductivity Copper Bus Bars, conforming to BIS. Current rating of bus bar sections shall be 2200 amps suitable for 415 V AC, 50 Hz system. Neutral bar shall be of same size as phase bus. The bus-bar shall be insulated with heat shrinkable PVC sleeves and shall be supported at required intervals with non- hygroscopic, non-deteriorating, and non inflammable SMC / FRP supports having adequate mechanical strength and a high tracking resistance, to withstand short circuit fault levels up to 50 kA for 1 sec. All risers and connections from bus bar shall be done with same material as the main bus bars of current rating as per rating of individual cubicle switch. To suit the stringent site conditions, the bus bar system shall be designed with generous clearance between phases than specified in the

standards. Adequate non-hygroscopic insulating sheet barriers between the bus chambers and feeders shall be provided.

The manufacturer of the panel must have test certificate and temperature rise certificate for busbar fault level of 50kA. A copy of the test certificate shall be enclosed with the offer.

C) OUT GOING SECTION

a) Feeders:

1. 3 nos. 1000 Amps EDO Four Pole Air Circuit Breakers housed in a sheet steel enclosure and as specified in sec 3.0

2 . 7 Nos of FP, 630 Amps MCCB of breaking capacity min 36kA with adjustable OL protection (Ir=0.4 x In to 1XIn, Tr=5-10s), Short Circuit protection (Im= 4x In to 10x In, Tm=0.01-0.3s) & EF protection (Ig=0.2xIn to 1xIn,Tg=0.1-1s) through inbuilt electronic trip unit in MCCB.

3 . 2 Nos of FP, 400 Amps MCCB of breaking capacity min 36 kA with adjustable OL protection (Ir=0.4 x In to 1XIn, Tr=5-10s), Short Circuit protection (Im= 4x In to 10x In, Tm=0.01-0.3s) & EF protection (Ig=0.2xIn to 1xIn,Tg=0.1-1s) through inbuilt electronic trip unit in MCCB

Instruments in feeder panels:

Each outgoing feeder shall comprise the following instruments in an instruments panel complete with all necessary interconnections, fine wiring and duly tested:
(i) Three phase digital ammeter (with inbuilt selector switch) of required range, SIF-96, class of accuracy 1.0, CT operated with CT ratio600/5,400/5 and 200/5 respectively (of burden 10VA) and Qty: As per circuit requirement.
(ii) HRC Instrument Fuse Holders fused 4 Amps and Qty: As per circuit requirement.
(iii) LED type Indication Lamps for #Feeder ON' indication in Red and #Feeder OFF' indication in Green colour and Qty: 3 nos.
(iv) Auxiliary power supply of digital ammeter shall be 230V and shall be connected with separate HRC fuse and link system.
(v) Distribution Board: 1 No. MLDB [Main Lighting Distribution Board] for general lighting, comprising of 125A, FP MCCB with breaking capacity min 25 kA & adjustable OL protection from 0.4xIn as Incomer; one no. 4P-63A-230V coil Contactor; an auto/manual switch; one no. 24 hrs time switch; ON/OFF push buttons and 6 nos. DP-10A, RCBOs (sensitivity 300mA) distributed evenly in three phases & neutral. The contactor shall be operated either in the auto mode through the timer or by the ON/OFF push buttons in the manual mode. Terminals shall be provided for a remote PBS.
(vi) Legend: MLDB and c) Outlets: 2 Nos. Industrial Type outlets rated 20 A
vii) Core balance current transformer with earth leakage relay. Earth leakage protection (CBCT & ELR): Current Settings : 30mA to 30A; Time Settings: 0.15Sec to 5 Sec : 1set

D) CABLE CHAMBER / CABLE ALLEY :

Suitable cable chamber/cable alleys shall be provided in between sections of the panel with

brought out terminals to drive the cables. Supports as required shall be provided along the cable alleys for supporting the cables / wires.

3.0 GENERAL SPECIFICATIONS OF AIR CIRCUIT BREAKERS:

3.0.1 Technical Specifications:

The air circuit breaker shall comply with the following specifications:
(i) Type: Indoor, horizontal isolation, horizontal draw out type.
(ii) Mounting: In cassette type enclosure
(iii) Insulation Medium: Air.
(iv) Rated operational voltage of circuit Breaker: 415 V
(v) Rated insulation voltage: 1000 V.
(vi) Systemearthing: Effectively earthed.
(vii) No of poles: Four.
(viii) Rated frequency: 50 Hz
(ix) Rated current: 2000 A for incomers/1000A outgoing feeder
(x) Rated making current: 125 kA
(xi) Rated short time withstand capacity:50 kA for 1 sec at 415V
(xii) Ultimate rated breaking capacity: 50 kA at 415 V
(xiii) Spring Charging: Motorized as well as manual.
(xiv) Method of closing: Through closing coil as well as Manual.
(xv) Closing coil voltage: 230 V AC
(xvi) Method of tripping:
(xvii) Shunt trip coil voltage:230 V AC
(xviii) Manual with mechanical open button.
(xix) Auxiliary Switch: 4NO+4NC.
(xx) Mechanical indication:
(xxi) a) Breaker ON/OFF b) Position SERVICE/TEST/ISOLATED

3.0.2 Technical Specifications:

The air circuit breaker shall be equipped with Microprocessor based protection release with minimum following features:

i. Standard Protection-Overload protection(Ir=0.4xIn to 1xIn,Tr=5-10s),Short circuit protection(Im=2XIn to10xIn with time delay)& Earth fault(Ig=0.2xIn to 1 xIn,Tg=0.1 -1s)

3.0.3. General Requirements:

(i) The circuit breaker shall conform to latest edition of IS 13947 except where specified otherwise in the specification.
(ii) The circuit breakers shall be with air as insulating medium and shall comprise of four independent poles. Each pole of a breaker shall constitute a separate breaking chamber. These four breaking chambers shall be mounted to a common chassis and connected together for operating by a common operating mechanism.
(iii) Main contact material shall be of copper alloy with silver facing and shall have ample contact area and contact pressure for carrying rated normal / short time currents and shall be adequate to keep temperature rise within limits.
(iv) Working parts of operating mechanism shall be of corrosion resisting materials .Bearings, which require grease, shall be equipped with pressure type grease fittings. Bearings, pins, bolts,

nuts etc shall be adequately pinned or locked to prevent loosening or changing adjustments with repeated operation of the breaker. The outside parts of the breakers and ferrous parts such as hangers, supports, bolts and nuts shall preferably be hot dip galvanized or zinc plated.
(v) The ACBs shall be supplied complete with enclosures as may be necessary. Short circuit performance test shall be conducted on the ACBs along with the enclosures.
(vi) The enclosure shall not be liable to distortion and misalignment.
(vii) The formed and welded steel construction shall be given corrosion resistant treatment following fabrication work. The enclosure / cubicle and doors shall be finished with stove enamel paint.
(viii)The breakers shall have three distinct positions-SERVICE/TEST/ISOLATED, within the cubicle and this shall be achieved by suitable racking cam and slide rails system operated from the front of the equipment. Visual indicators shall be provided to show these three positions.
(ix) A STOP shall be provided on the guide rails to prevent accidental falling of the breaker while withdrawing the moving portion.
(x) SAFETY SHUTTER ASSEMBLY shall be provided for shrouding of the main contacts when the breaker is withdrawn. This must operate automatically during insertion and withdrawal of the circuit breakers.

3.0.4. Operating Mechanism:

(i)There shall be provision for manual as well as motorized spring charging. Closing shall be through 230 V AC closing coil. Provision for manually closing the breaker shall also be there. It shall be ensured for each breaker that it closes at the correct speed.
(ii) A direct mechanical coupling shall give indication of ACB ON or OFF.
(iii) A shunt release shall be provided for electrical tripping of the breaker. Power packs to be provided if necessary.
(iv) Vendor shall ensure correct wiring to facilitate tripping of the breaker.

3.0.5. Control Circuit:

(i) Control wiring shall be done with 1.5 sq. mm PVC insulated and PVC sheathed FRLS Cables with copper conductor wires of 1100V grade.CT wiring shall be done with 2.5 Sqmm, PVC insulated and PVC sheathed FRLS Cables with copper conductor wires of 1100V grade.
(ii) Suitable lugs shall be used for termination and all wires shall be numbered with ferrules, as per drawings.

3.0.6. Interlocks:

The following minimum safety interlocks shall be provided.
(i) The breaker cannot be closed in any intermediate position other than three distinct positions SERVICE /TEST/ISOLATED.
(ii) The front door / cover cannot be opened when the circuit breaker is in closed condition.
(iii) The moving portion of the breaker shall be earthed before the main circuit breaker controls are plugged in the stationary contacts i.e. .before the control circuit is completed. Positive earthing of the circuit breaker shall be maintained in the connected position.
(iv) Anti pumping feature shall be provided for each breaker.
(v) The goods/equipment shall be of best quality and workmanship.

4.0 DOCUMENTS:

1. The following documents shall be submitted with the offer:

(i)Type test certificate from reputed test house accredited by National Accreditation Board for testing and calibration Laboratories (NABL), India for Short time current withstand test (50 kA for 1 sec)and temperature rise test of the panel.
(ii) Deviation of offer from tender specifications with justification and backup documents from principal wherever required. All deviations subject to acceptance by OIL in writing

2. The successful bidder shall obtain approval for the following drawings, documents. All electrical details shall be submitted within 45 days of placement of order. OIL shall require minimum 60 days time for approval of drawings. The approval time may increase depending upon clarifications required from the bidders.

3. List of recommended spares with part nos. for two years

5.0 GENERAL NOTES ON PCC:

1. All main riser connections shall be done by suitably sized and rated copper links or copper cables as recommended by the switch manufacturer. In case of cables, terminations at both ends shall be done through suitably rated tinned copper lugs.

2. Brought out terminals of suitable rating (as per rating of the feeder) shall be provided for all cable terminations of incoming / outgoing feeder units.

3. Suitably rated tinned copper crimping lugs for each conductor of all outgoing cable connections shall be supplied with the brought out terminals including terminals for remote push buttons.

4. All cable entries shall be from bottom. Suitable cable entry arrangement with detachable gland plates shall be provided. Adequate nos. of single compression heavy duty nickel plated brass cable glands suitable for correspondingly rated PVCA, 4C, Al cable shall be provided on the bottom detachable gland plate. Adequate nos of glands shall also be provided for circuits to be fed from DBs.

5. Sufficient space shall be provided for cable termination, dressing and connecting cable leads to the brought out terminals.

6. Control wiring shall be done with 1.5 sq. mm PVC insulated and PVC sheathed FRLS Cables with copper conductor wires of 1100V grade. CT wiring shall be done with 2.5 Sqmm PVC insulated and PVC sheathed FRLS Cables with copper conductor wires of 1100V grade. All power and Control wires shall have ferrule numbers. All joints in control & CT wiring shall be done with suitable TBs. All cables / wires shall have ferrule numbers for proper identification as per drawing. All terminations shall be done through lugs.

7. All feeders shall have Moulded fuse holders, suitably fused, for control & instrument circuits.

8. Legend plates for the indication lamps, meters, control switches / buttons and labels for the terminals shall be provided.

9. The board should be properly packed to avoid ingress of rain water/moisture and damage during the transit.

10. The panel shall be guaranteed for 1 (one) year from the date of supply or 18 months from the date of delivery whichever is earlier. Guarantee cards shall be duly signed and stamped by the supplier and shall be provided along with the supply. 11. In their offer the party must mention their detailed comments point-wise against each point of tender specifications and general notes. Any deviation from the tender specification shall be specifically mentioned. In case of no deviation, it shall be clearly mentioned in the offer as #NO DEVIATION#. 12. Specific type and make of all equipment shall be clearly mentioned. All the information required as per tender specifications must be submitted. 13. In case of an order the complete tender specification shall be mentioned in the order. However, deviations from tender specifications, as mentioned by party in their offer and subject to acceptance by OIL shall be mentioned in the order. 14. The manufacture of the equipment is to be started only after written approval of the drawings/ documents by OIL. 6.0 TEST AND INSPECTION: 1. All routine tests shall be carried out as per relevant IS and IEC. 2. The equipment shall be inspected by engineer(s) of OIL prior to dispatch. Routine tests in accordance with relevant IS shall be carried out at manufacture's works which shall be witnessed by OIL#s engineer(s). The inspection shall include accuracy of dimensions & circuitry as per approved drawings, insulation tests, mechanical & electrical operation tests, primary current injection tests and any other test of the relays as recommended by the manufacturer. All necessary arrangements for the tests shall be made by the vendor at their works during the inspection. 3. Any alteration requirements pointed during the inspection shall be carried out by the manufacturer and confirmed before dispatch, without which dispatch clearance shall not be given. 4. Copies of the test certificates along with bound copies of complete test results shall be submitted for approval of OIL prior to dispatch of the PCC. This shall include complete reports and results of the routine tests as also certified copies of the type tests. 7.0 WARRANTY/GUARANTEE: The supplier shall guarantee the equipment for a period of 18 months from the date of supply or 12 (twelve) months from the date of commissioning against defects arising from faulty design, material and workmanship. Note: All Make as per Annexure-I	
ITEM NO. 40 **Installation & Commissioning of 1 no 415V,50Hz, 3 phase 4 wire LT PCC Panel for proposed MTDC Substation – QTY = 01 AU** Installation, testing and commissioning includes fixing of two numbers earth electrodes, making necessary earth connection from Panel to earth electrode, Termination of incoming cable at Panel with proper size of gland and lugs with testing of all ougoings. b) Earthing: Supply and burying heavy duty, sealed CPRI approved chemical electrode with suitable	

backfilling chemical for soil treatment of size 80mm dia 4 mm thick 3000mm length and providing masonry enclosure size 600mmx 600mm x600mm with RCC cover plate having 2nos. metallic hooks for lifting cover and funnel type arrangement for watering pipe etc. complete as required - Minimum 2 Nos. Value of earth resistance shall be maintained to be equal to or less than 1.0 Ohms when connected all the earth electrodes together.	
ITEM NO. 50 **Supply of 2 nos 11KV/415V, 1000KVA Dry type Transformer for Proposed MTDC Substation – QTY =02 NOS** Supply of Transformer 1.SCOPE This specification covers supply,testing and commissioning of 2 nos 1000kVA 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 1000kVA, 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 : 40ºC
ii) Minimum Ambient air temperature : 6.0ºC
b). Maximum humidity at site (at 40 º 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: 1000kVA
b). No. of phases: 3.
c). Frequency: 50 ± 3 %
d). Type of Insulation: Class-F. Temp. Rise-Designed to withstand 140 degree º 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: 5%. Tolerance as per IS-2026.
j). Nominal system voltage: 11kV/ 415 Volts
k). Type of neutral earthing: Solidly grounded Neutral.
l). 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 3½ 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: As per Annexure-I

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 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. 60 **Installation & Commissioning of 2 nos 11KV/415V, 1000KVA Dry type Transformer for Proposed MTDC Substation – QTY = 02 NOS** Testing and Commissioning 1000KVA Transformer 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.	

NOTE:

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

2. All the items will be procured from the same source and evaluation will be done accordingly.

3. Materials to be delivered in Duliajan, Assam. Bidders are requested to quote the freight charges mentioning gross weight & volume of the consignment.

<u>11 KV VACUUM CIRCUIT BREAKER SPARES (FOR EMERGENCY REPLACEMENT)</u> for all the substations

SL.No.	SPARE PARTS DESCRIPTION	QNTY.	UNIT	REMARKS
1	Spring Charging Motor Assembly of 11 KV VCB Type : Make :	1	No.	
2	Complete Mechanism Box Assembly of VCB Type : Make :	1	No.	
3	Closing Coil Voltage : Type : Make :	2	No.	
4	Shunt Trip Coil Voltage : Type : Make :	2	No.	
5	Closing Coil Assembly of VCB Make & Type :	1	No.	
6	Tripping Coil Assembly of VCB Make & Type :	1	No.	
7	Spring Charging Motor for VCB (Only Motor) Make & Type :	1	No.	
8	Spout Bushing (For 11 KV Panel) Make :	3	No.	
9	Trip Catch Assembly of VCB Make & Type :	1	No.	
10	Vacuum Interuptor of VCB Make & Type :	1	No.	

ANNEXURE- II

DATA SHEET of Vacuum Circuit Breaker :
(To be filled by the bidder)

A. 11KV VCB:

1. Name of manufacturer :
2. Manufacturer's
   Type No. :
   Model No. :
3. Panel type :
4. Degree of protection :
5. Fully Type tested : Yes/No.
6. Type tested at :
   (Specify lab/Institution where test was carried out)
7. Conforms to (Standards):
   a) IEC :
   b) BIS :
   c) Others :
8. Rated Insulation:
   a) Min. withstands voltage :
   b) Impulse voltage withstand (dry) :
9. General details of Panels
   a) Extensible : Yes/No.
   b) Compartmentalized : Yes/No
   c) No. of compartments :
   d) Names of the compartments (To be indicated)
      i)
      ii)
      iii)
      iv)
10. Material of internal partitions :
11. Thickness of Panel Sheet metal :
12. Busbars
   a) Busbar material:
   b) Busbar shape :
   c) Busbar size :
   d) Busbarinsulation :
   e) Busbar rating (Amps) :
   f) Busbar Spouts insulation material :
13. Busbar support insulation :
   Type & materials
14. Guaranteed maintenance free life of
   a) Panels :
   b) Circuit breaker:
15. Operational safety interlocks provided (To be indicated)
   a)
   b)
   c)
16. Earthing facilities provided for
   a) Bus-bars : Yes/No
   b) Circuit/Cable : Yes/No.

17. Circuit breaker cubicle with front plate/door pressure tested for internal arc faults. : Yes/No

18. Panel Wiring:

a) Voltage rating :
b) Insulation type &material :
c) Wire size :

19. ENVIRONMENTAL CONDITIONS

a) Maximum Ambient air temperature :
b) Minimum Ambient air temperature :
c) Maximum humidity at site (at 40 ° C) :
d) Surrounding atmospheric condition :

20. Confirmed insulation provided is suitable for above environmental conditions: Yes/No

B. VACUUM CIRCUIT BREAKER

(Information to be given IS: 13118: 1991 Clause 9.012)

1) Rated Values and Characteristics

a) Number of Poles :
b) Class : Indoor/Outdoor
Temperature :
Ice coating :
c) Rated voltage :
d) Rated insulation level :
e) Rated frequency :
f) Rated normal current :
g) Rated line charging :
breaking current
h) Rated cable charging :
breaking current
i) Rated small inductive :
breaking current
j) Rated Short Circuit :
breaking current
k) First pole to clear factor :
l) Rated Transient Recovery voltage :
for terminal faults
m) Rated characteristics for short :
line faults
n) Rated Short Circuit making current:
o) Rated Operating sequence :
p) Rated duration of short circuit :
q) Rated out of phase breaking current :
r) Rated opening time :
s) Rated break time. :
t) Rated closing time :
u) Frequency of operation :

2. Characteristics of the operating mechanism of CB and associated equipment in particular:

a) Method of operation :
b) Number and type of spares :
auxiliary switches.
c) Rated supply voltage power and rated supply frequency :
d) Panel, Light space heater :
e) Closing devices - Normal voltage :

Min. voltage :
Max. voltage :
f) Shunt trip coil - Normal voltage :
Min. voltage :
Max. voltage :
g) Series trip coil- Normal voltage :
Min. voltage :
Max. voltage :
h) Indication supply :

3. Bushings - Material :

C. CURRENT TRANSFORMERS OF SWITCHGEAR PANEL:

1. Feeder panel DC/EF (Protection) CT's
i) Make :
ii) Type :
iii) Class :
iv) Ratio :
v) Burden (VA) :

2. Panel Metering CT's
i) Make :
ii) Type
iii) Class :
iv) Ratio :
v) Burden (VA) :

3: Panel Protection CT's
i) Make :
ii) Type :
iii) Class :
iv) Ratio :
v) No. of cores (Secondary):
vi) Burden (VA) :

D. VOLTAGE TRANSFORMERS OF SWITCHGEAR PANEL:

1. Incoming Panel VT :

i) Make :
ii) Type :
iii) No. of phases :
iv) Ratio :
v) Class :
vi) Burden (VA) :
vii) Location/Mounted on :
viii) Fixed/Withdrawal:
ix) Primary side protection:
x) Secondary side protection:

E. CONTROL CABLES:

a) Make :
b) Voltage Grade :
c) Insulation :
d) Conductor Material :
e) Size (Sq. mm. per core):

F. Multifunction meter:

a) Make :
b) Class :
c) Ratio :

H. SELECTOR SWITCHES:

a) Make :
b) Type :

I. CONTROL SWITCHES:

a) Make :
b) Type :

J. PROTECTIVE RELAY

a) Type of Relay :
b) Make of Relay :
c) Model :

ANNEXURE-IV

TECHNICAL DATA SHEET FOR TRANSFORMER

(To be filled in by the Bidder)

Sr. No.	T ECHNICAL PARTICULARS	SPECIFICATIONS
1	Type of Transformer	Cast Resin Dry Type
2	Service	
3	KVA Rating (continuously rated)	
4	Duty	
5	Rated Voltage	
	(a) HV (Volts)	
	(b) LV(VOLTS)	
6	Rated Frequency	
7	No. of Phases	
8	Type of Cooling	
9	Winding Connection	
10	Tappings	
	(a) Range	
	(b) No. of steps	
	(c) In steps of	
	(d) Tapping provided on HV side	
11	Tap changer type	
12	Vector Group	
13	Reference ambient temperature	
14	Temperature rise winding	
15	Class of Insulation	
16	% Impedance	
1 7	Physical Dimensions	
	(a) Length (in mm)	
	(b) Width (in mm)	
	(c) Height (in mm)	
18	Approximate weight	
	(a) Core and Windings (Kgs)	
	(b) Total Weight (Kgs)	
19	Iron losses at normal voltage ratio	
20	Copper losses at normal voltage ratio at full load	
21	Efficiency at unity power factor	
	(a) Full load	
	(b) 75% load	
	(c) 50% load	
22	Regulation	
	(a)at unity power	
	(b) at 0.8 power factor	
23	Reference standards	
24	Method of Earthing	
25	Fittings and Accessories	
	(a) Off circuit tap links	

	(b) Earthing terminals	
	(c) Rating and Diagram Plate	
	(d) Lifting Lugs for Complete Transformer	
	(e) Cover Lifting Lugs	
	(f) Bidirectional Rollers	
	(g) Digital Temperature Scanner	
26	Transformer Type Tested	

Annexure-I

Acceptable Make with Specification:

A. For 415V,AC equipment:

Digital Multifunction meter, Current Transformer, LED, HRC fuses, Trip- neutral-close selector switch, Air Circuit Breaker, MCCB and MCCB with RCCB with CBCT are as follows:

1. Digital Multifunction Meter:

Make:
i. Schneider Power logic PM200 series, HPL -Socomec (Diris A41), Siemens PAC3200.

2. Digital Ammeter with inbuilt selector switch:

Make:
i. Schneider electric, HPL, LT, Siemens, Indoasian

3. Current Transformer:

Make:
i. Kappa, Precise Electrical, Pragati Electrical, Siemens, L&T, Schneider electric, Indoasian

4. LED:

Make:
i. Binay, Tecnic, L&T, Siemens

5. HRC Fuses:

Make:
i. GE, Siemens, L&T, Schneider, Cooper Bussman, Indoasian

6. Trip-Neutal-Close Selector Switch:

Make:
i. Kaycee, Salzar, Schneider, L&T, Siemens, Indoasian

7. Air Circuit Breaker: ACB with minimum LSIg Protection EDO type, fault level 50 kA or above at 500 VAC. Electrically and manually operated with O/c, S/c, instantaneous and earth fault protection. Spring charging shall be motorized with 230 Vac as well as manual.

Make:
i. Schneider Electric (Merlin Gerin) of NW series with micro logic P/6.0H or above.
ii. Siemens India-WL Series with electronic trip unit ETU 76B release.
iii. GE India- Entelli guard SL. ACB with electronic trip unit (GT-H)

iv. ABB india- Emax series with electronic trip unit having PR 121P
v. Legrand- model DMX3-N with electronic relase- micro processor based protection unit MP4 LSIg.
vi. L&T Air Ciruit Breaker, Type U- Power omega with matrix protection and control unit MTX4.5

8. MCCB: 415 volt, fault level 36kA and above with O/C, S/C and Earth fault protection (for distribution application with 4 sets of spreaders for cable connection)/ 25 kA for 100/160 Amps MCCB with LSIg protection

Make:

i. Schneider Electric (Merlin Gerin): model compact NSX with electronic trip unit with micro logic- 6.0A or above.
ii. ABB – Tmax T6 with PR 222.
iii. Siemens India Ltd: Sentron VL MCCB, model VL standard with electronic release and microprocessor based ETU.
iv. Legrand: Model- DPX/DPX3 with LSIg release-Sg type.
v. GE India: Record Plus, FG with electronic trip unit SMR2.
Vi. Indoasian X-Tec Series with X5 LSIg release

9. Earth leakage relay with CBCT,

Make:
i. Legrand
a. Adjustable sensitivity: 0.03 to 30 A.
b. Adjustable trip: 0, 0.15 to 5 seconds.
c. Auxiliary power supply voltage 230V, AC, 50 Hz

ii. Schneider Electric (Merlin Gerin): Vigirex Earth Leakage Relay:
a. RH 99, sensitivity 0.03 to 30A,
b.time delay 0 to 4.5 Second, supply voltage, 230V AC,

iii. GE: .Type, RD6:
a. sensitivity 0.2 to 5A,
b.time delay 0.5 to 5 Second, and auxiliary power supply 110 to 400 V AC.

iv. Prokdv's: Digital earth leakage relay:

a. Model No. MPEL-01: sensitivity 300mA to 12 A, time delay 0 to 5 Sec, auxiliary power supply 85 to 275V AC/DC.
v. General Industrial and Control, Model-17G715GF2- marketing by L&T

10. Stainless steel single compression cable gland:

Dowell/gland make/Jainson/Baliga

11: sweating socket:

Make

i. Dowell
ii. 3M

12. Modular switches/ socket:

Make:
i. Legrand/ Crab tree/L&T/Indoasian

14. 1.1 KV grade XLPE/PVC cable :

Make:
i. Polycab/ Nicco/ Crystal/ RPG/NECAB/Prestige

15. Auxiliary contactor:

Make:
i. Siemens/ ABB/ Schneider electric/Indoasian

B. 11KV, AC HT equipment:

1. HT Current transformer-

Make:
i. Kappa/Precise Electricals/ Intrans Electro Components Pvt Ltd/Pragati Electricals/Same as the maker of the VCB.

2. Voltage transformer -

Make:
i. Kappa/Precise Electricals/Intrans Electro Components Pvt Ltd/Pragati Electricals/Same as the make of the VCB.

3. Directional type Numerical protection relay:

Make:
Siemens(Type Siprotec 7SJ80 & 7SD80)/SEL(Type SEL-751&SEL-311)/Areva T&D India Ltd(Schneider Group,type Micom-P14D & P-542)/Merlin-GErin (Schneider Group,typeSepam Series S-84)/EASUN-Argus-2

4. Non directional type Numerical protection relay

Make:
Siemens(Type Siprotec 7SD80)/SEL(Type SEL-751)/Areva T&D India Ltd(Schneider Group,type Micom-p14N)/Merlin-GErin(Schneider Group, type Sepam Series S-84)/ EASUN-Argus-1

5. 11KV,Vaccuam circuit breaker make:

Make:
Siemens/ ABB/ Schneider/ Crompton greaves

6. 11KV Interrupter :

Make:
Siemens/ ABB/ Schneider/ Crompton greaves

Dry type Transformer :

Make:
Voltamp/ ABB/Raychem RPG/PETE

****

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. **SDI3351P17** 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 h e/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.

3. The bidder agrees and undertakes to pay the said amounts without protest or demur subject only to condition that if the Bidder/Contractor can prove and establish that the exclusion of the Bidder from the tender process or the termination of the contract after the contract award has caused no damage or less damage than the amount or the liquidated damages, the Bidder/Contractor shall compensate the Principal only to the extent of the damage in the amount proved.

Section 5 - Previous transgression

1. The Bidder declares that no previous transgression occurred in the last 3 years with any other Company in any country conforming to the TI approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.

2. If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

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

1. The Bidder/Contractor undertakes to demand 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)

1. The Principal appoints competent and credible external independent Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

2. The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairperson of the Board of the Principal.

3. The Contractor accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder/Contractor/Subcontractor with confidentiality.

4. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

5. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or heal the violation, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

6. The Monitor will submit a written report to the Chairperson of the Board of the Principal within 8 to 10 weeks from the date of reference or intimation to him by the 'Principal' and, should the occasion arise, submit proposals for correcting problematic situations.

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

8. The word 'Monitor' would include both singular and plural.

Section 9 - Pact Duration

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

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

Section 10 - Other provisions

1. This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal, i.e. New Delhi.

2. Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

3. If the Contractor is a partnership or a consortium, this agreement must be, signed by all partners or consortium members.

4. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intensions.

R BARMAN
SR MANAGER MATERIALS (IP) ----------

For the Principal For the Bidder/Contractor

Place. Duliajan. Witness 1 : .....

Date 17.12.2016 . Witness 2 : .....

Technical Bid Checklist **Annexure-EEE**

Tender No.	
Bidder's Name :	

SL. NO.	BEC / TENDER REQUIREMENTS	Compliance by Bidder	
		Indicate 'Confirmed' / 'Not Confirmed' / Not applicable	Indicate Corresponding page ref. of unpriced bid or Comments
1	Confirm that validity has been offered as per NIT.		
2	Confirm that Bid Security / Earnest Money has been submitted as per NIT (Wherever Applicable) ?		
3	Confirm that you shall submit Performance security (in the event of placement of order) (Wherever Applicable) ?		
4	Confirm that duly signed Integrity Pact has been submitted as per NIT (Wherever Applicable) ?		
5	Confirm that you have submitted documentary evidence of successfully executing one Purchase order as stipulated in NIT in any of the preceding 5 financial years (*)		
6	Confirm that you have submitted Balance Sheet and Profit and Loss Account of any of the preceding 3 financial years certified by a chartered accountant.		
7	Confirm that the bid has been signed using Class 3 digital certificate with Organisation's Name as per NIT.		
8	Confirm that you have not taken any exception/deviations to the NIT .		

NOTE: Please fill up the greyed cells only.

(*) Purchase Orders along with copies of any of the documents in respect of satisfactory execution of the Purchase Orders should be submitted – (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 the purchase order cited above.

Response Sheet **Annexure-FFF**

Tender No.	
Bidders Name	

Bidders Response Sheet

Sl No.	Description	Remarks
1	Place of Despatch	
2	Whether Freight charges have been included in your quoted prices	
3	Whether Insurance charges have been included in your quoted prices	
4	Make of quoted Product	
5	Offered Validity of Bid as per NIT	
6	Bid Security Submitted (if applicable)	
6	Details of Bid Security Submitted to OIL (if applicable)	
	a) Bid Security Amount (In Rs):	
	b) Bid Security Valid upto:	
7	Whether you shall submit Performance Security in the event of placement of order on you (if applicable)	
8	Integrity Pact Submitted (if applicable)	
9	Whether you have submitted documentary evidence of successfully executing one Purchase order as stipulated in NIT in any of the preceding 5 financial years (*)	
10	Whether you have submitted Balance Sheet and Profit and Loss Account of any of the preceding 3 financial years certified by a chartered accountant.	
11	Delivery Period in weeks from placement of order	
12	Complied to Payment terms of NIT (if applicable) otherwise to Standard Payment Terms of OIL or not.	
13	If bidder is MSE whether you have quoted your own product	
14	If Bid security submitted as Bank Guarantee, Name and Full Address of Issuing Bank including Telephone, Fax Nos and Email id of branch manager	

NOTE: Please fill up the greyed cells only.

(*) Purchase Orders along with copies of any of the documents in respect of satisfactory execution of the Purchase Orders should be submitted – (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

ANNEXURE - GGG

(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	**:……...**

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

……
Office Seal **Signature of Vendor**

Counter Signed by Banker:
Seal of Bank:

Enclosure: Self attested photocopies of the following documents-

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