OIL INDIA LIMITED

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

INVITATION FOR BID LOCAL COMPETITIVE BID

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

Tender No	Bid Closing/ Opening Date	Item & Qty
SDI0045P16 DT: 27.01.2016 (SINGLE STAGE TWO BID SYSTEM)	24.03.2016	EMERGENCY LIGHTING SYSTEM
SDI0164P16 DT: 04.02.2016 (SINGLE STAGE TWO BID SYSTEM)	24.03.2016	DESKTOP COMPUTERS – 253 NOS
SDI0170P16 DT: 06.02.2016 (SINGLE STAGE TWO BID SYSTEM)	24.03.2016	FEEDER PILLAR - 06 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 Etenders 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.

9

OIL INDIA LIMITED

(A Government of India Enterprises)

PO: Duliajan – 786602 Assam (India)

TELEPHONE NO. (91-374) 2808719

FAX NO: (91-374) 2800533

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

FORWARDING LETTER

Tender No. : SDI0170P16 DT: 06.01.2016

Tender Fee : Rs 1,000.00

Bid Security Amount : Applicable

Bidding Type : SINGLE STAGE TWO BID SYSTEM

Bid Closing on : As mentioned in the e-portal

Bid Opening on : -do-

Performance Security : Applicable

Integrity Pact : Applicable

OIL invites Bids for **SUPPLY**, **INSTALLATION AND COMMISIONNG OF FEEDER PILLAR –QTY= 06 NOS** through its e-Procurement site under **SINGLE STAGE TWO BID SYSTEM**. The bidding documents and other terms and conditions are available at Booklet No. MM/LOCAL/E-01/2005 for E-Procurement LCB Tenders. The prescribed Bid Forms for submission of bids are available in the Technical RFx -> External Area - > Tender Documents

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

The tender will be governed by:

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

b) OIL's office timings are as below:

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

Vendors should contact OIL officials at above timings only.

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

- d) Technical specifications and Quantity as per **Annexure 1A**.
- e) The prescribed Bid Forms for submission of bids are available in the Technical RFx -> External Area > Tender Documents.
- f) In the event of receipt of only a single offer against the tender within B.C. date, OIL reserves the right to extend the B.C. date as deemed fit by the Company. During the extended period, the bidders who have already submitted the bids on or before the original B.C. date, shall not be permitted to revise their quotation.
- g) All corrigenda, addenda, amendments, time extension, clarifications etc. To the tender will be hoisted on OIL's website (www.oil-india.com) and in the e-portal (https://etenders.srm.oilindia.in/irj/portal) only and no separate notification shall be issued in the press. Prospective bidders are requested to regularly visit the website and e-portal to keep themselves updated.
- h) Any sum of money due and payable to the contractor (including Security Deposit refundable to them) under this or any other contract may be appropriated by Oil India Limited and set-off against any claim of Oil India Limited (or such other person or persons contracting through Oil India Limited) for payment of sum of money arising out of this contract or under any other contract made by the contractor with Oil India Limited (or such other person or persons contracting through Oil India Limited).
- i) Bidder are advised to fill up the Technical bid check list (**Annexure EEE**) and Response sheet (**Annexure FFF**) given in MS excel format in Technical RFx -> External Area -> Tender Documents. The above filled up document to be uploaded in the Technical RFX Response.

Special Note:

1.0 General Qualification Criteria:

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

Criteria	Complied /
	Not Complied.
	Documentary
	evidence submitted /
	not submitted
a) Annual financial turnover of the firm in any of the last 3 financial	
years or current financial year should not be less than Rs 101.58	
Lakhs.	

Note: For Annual financial turnover enclose the audited Annual Reports or balance sheet certified by a chartered accountant.

2.0 Vendors having OIL's User ID & password shall purchase bid documents on-line through OIL's electronic Payment Gateway 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 shall obtain User ID & password through online vendor registration system in e-portal and can subsequently purchase bid

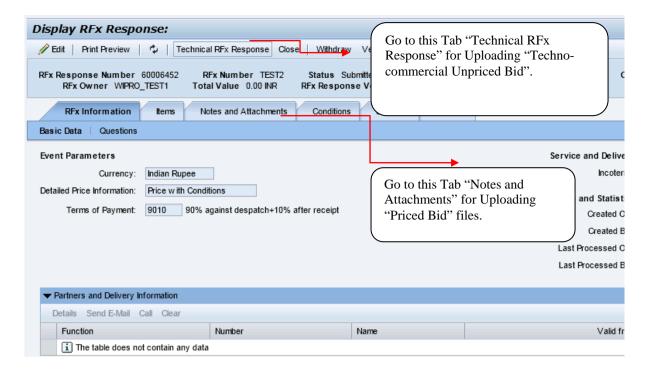
documents through OIL's electronic Payment Gateway upto one week prior to the Bid closing date (or as amended in e-portal).

Alternatively application showing full address/email address with Tender Fee (Non-refundable) of Rs. 1,000.00 in favour of M/s Oil India Limited and payable at Duliajan is to be sent to Head-Materials, Oil India Limited, P.O. Duliajan, Assam-786602. Application shall be accepted only upto one week prior to the Bid closing date <a href="Government-or-net-or

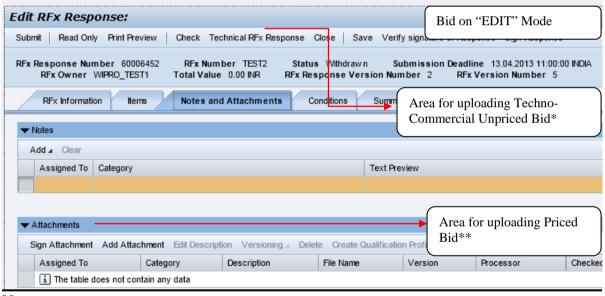
NOTE:

PSUs and MSE units are provided tender documents Free of Cost (as per govt guidelines), however they have to apply to OIL's designated office to issue the tender documents one week prior to the Bid closing date (or as amended in e-portal).

- 3.0 The tender is invited under SINGLE STAGE-TWO BID SYSTEM. The bidders are required to submit both the "TECHNO-COMMERCIAL UNPRICED BID" and "PRICED BID" through electronic format in the OIL's e-Tender portal within the Bid Closing Date and Time stipulated in the e-Tender.
- 3.1 Please ensure that Technical Bid / all technical related documents related to the tender are uploaded in the Technical RFx Response-> User > Technical Bid only. The "TECHNO-COMMERCIAL UNPRICED BID" shall contain all techno-commercial details except the prices. Please note that no price details should be uploaded in Technical RFx Response.
- 3.2 The "PRICE BID" must contain the price schedule and the bidder's commercial terms and conditions. The prices of the items should be quoted in "Conditions Tab". Details of prices as per Bid format / Commercial bid can be uploaded as Attachment under the attachment option under "Notes & Attachments".
- 3.3 A screen shot in this regard is given below. Offer not complying with above submission procedure will be rejected as per Bid Rejection Criteria mentioned in Annexure-CCC.



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



Note:

- * The "Techno-Commercial Unpriced Bid" shall contain all techno-commercial details **except** the prices.
- ** The "Price bid" must contain the price schedule and the bidder's commercial terms and conditions. For uploading Price Bid, first click on Sign Attachment, a browser window will open, select the file from the PC and click on Sign to sign the Sign. On Signing a new file with extension .SSIG will be created. Close that window. Next click on Add Atachment, a browser window will open, select the .SSIG signed file from the PC and name the file under Description, Assigned to General Data and clock on OK to save the File.
- 4.0 Please note that all tender forms and supporting documents are to be submitted through OIL's e-Procurement site only except following documents which are to be submitted manually in sealed envelope super scribed with **Tender no.** and **Due date** to **Head**

Materials, Materials Department, Oil India Limited, Duliajan - 786602, Assam on or before the Bid Closing Date and Time mentioned in the Tender.

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

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

- 5.0 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 General Terms and Conditions for E- PROCUREMENT LCB TENDERS (MM/LOCAL/E-01/2005) 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.
- 6.0 Bidders are requested to examine all instructions, forms, terms and specifications in the bid. Failure to furnish all information required as per the NIT or submission of offers not substantially responsive to the bid in every respect will be at the bidders risk and may result in rejection of its offer without seeking any clarifications.
- 7.0 Bidders must ensure that their bid is uploaded in the system before the tender closing date and time. Also, they must ensure that above documents which are to be submitted in a sealed envelope are also submitted at the above mentioned address before the bid closing date and time failing which the offer shall be rejected.
- 8.0 Bid must be submitted electronically only through OIL's e-procurement portal. Bid submitted in any other form will be rejected.
- 9.0 **SINGLE STAGE TWO BID SYSTEM** shall be followed for this tender and only the PRICED-BIDS of the bidders whose offers are commercially and technically acceptable shall be opened for further evaluation.
- 10.0 a) The Integrity Pact is applicable against this tender. Therefore, please submit the Integrity Pact document duly signed along with your quotation as per BRC. OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide Annexure DDD of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL's competent signatory. The proforma has to be submitted by the bidder (along with the technical bid) duly signed (digitally) by the same signatory who signed the bid, i.e., who is duly authorized to sign the bid. Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact has been signed by the bidder's authorized signatory who sign the Bid. If any bidder refuses to sign Integrity Pact or declines to submit Integrity Pact with the offer, their bid shall be rejected straightway.
 - b) The name of the OIL's Independent External Monitors at present are as under:

SHRI RAJIV MATHUR, IPS (Retd.) Former Director, IB, Govt. of India, e-Mail ID: rajivmathur23@gmail.com

11.0 The tender shall be governed by the Bid Rejection & Bid Evaluation Criteria given in enclosed **Annexure-CCC**. However, if any of the Clauses of the Bid Rejection Criteria / Page 5 of 6

Bid Evaluation Criteria (as per **Annexure-CCC**) contradict the Clauses of the tender and / or "General Terms & Conditions" as per Booklet No. MM/LOCAL/E-01/2005 for E-procurement (LCB Tenders) elsewhere, those in the BEC / BRC shall prevail.

- 12.0 To ascertain the substantial responsiveness of the bid OIL reserves the right to ask the bidder for clarification in respect of clauses covered under BRC also and such clarifications fulfilling the BRC clauses in toto must be received on or before the deadline given by the company, failing which the offer will be summarily rejected.
- 13.0 Please do refer the User Manual provided on the portal on the procedure How to create Response for submitting offer.
- 14.0 If Bank Guarantee is submitted towards 'Bid Security', then bidders have to ensure that the Bank Guarantee issuing bank indicate the name and detailed address (including e-mail) of their higher office from where confirmation towards genuineness of the Bank Guarantee can be obtained.

NOTE:

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

Yours Faithfully

Sd-(R BARMAN) SR. MANAGER MATERIALS (IP) FOR: HEAD-MATERIALS Tender No & Date: SDI0170P16 dated 06.01.2016

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.

<u>Criteria</u>	Complied Not	/
	Complied. (Remarks any)	if
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:		
(i) Bidder shall be a manufacturer of 415V, PCC panel / PMCC panel/outdoor type feeder pillar and / or also authorized dealer/ channel partner of switchgear manufacturer. Bidder quoting on behalf of their OEM shall submmit their authorisation certificate.		
(ii) The bidder must quote for both (a) supply and (b) installation and commissioning of feeder pillars.		
(iii) The Bidder shall have designed, manufactured and supplied at least 2 sets of 415V PCC Panel / PMCC Panel / outdoor type feeder pillar with MCCB, rated minimum 415V, 630A, 50 kA for 1 sec in any Central Govt. / State Govt. / PSUs /Public Limited Companies in the last five years (from the initial B.C Date) and the supplied panel must have proven track record of operating satisfactorily for at least a period of one year as on bid closing date.(Initial)		
(iv) Bidder shall submit documentary evidences such as purchase orders, completion certificate, authorisation certificates from OEM and other necessary details & documents along with offer for (i) and (iii) above.		

B) COMMERCIAL:

i) Validity of the bid shall be minimum 120 days from the Bid Closing Date.

ii) Bid security:

The bid must be accompanied by Bid Security of **Rs 1,02,000.00** in OIL's prescribed format as Bank Guarantee or a Bank Draft/Cashier cheque in favour of OIL. The Bid Security may be submitted manually in sealed envelope superscribed with Tender no. and Bid Closing date to Head Materials, Materials Department, Oil India Limited, Duliajan- 786602, Assam on or before the Bid Closing Date and Time mentioned in the Tender. **The Bank Guarantee towards Bid Security shall be valid for 10 months from Bid closing date. (i.e. upto 24.01.2017).**

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:

The successful Bidder will have to provide Performance Security @ 10% of total cost of Equipment + Installation & Commissioning. The Performance Security must be valid for one year from the date of successful commissioning of the equipment or 18 months from the date of despatch whichever is earlier.

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

- v) The Bank Guarantee should be allowed to be encashed at all branches within India.
- vi) The prices offered will have to be firm through delivery and not subject to variation on any account. A bid submitted with an adjustable price will be treated as non-responsive and rejected.
- vii) Bids received after the bid closing date and time will be rejected. Similarly, modifications to bids received after the bid closing date & time will not be considered.
- viii) All the Bids must be Digitally Signed using "Class 3" digital certificate with Organisation's name (*e-commerce application*) as per Indian IT Act obtained from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India. The bid signed using other than "Class 3 with Organisation's Name" digital certificate, will be rejected.
- ix) Technical RFx Response folder is meant for Technical bid only. Therefore, No price should be given in Technical RFx Response folder, otherwise the offer will be rejected.
- x) Price should be maintained in the "online price schedule" only. The price submitted other than the "online price schedule" shall not be considered.

xi). Integrity Pact:

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

- xii). A bid shall be rejected straightway if it does not conform to any one of the following clauses:
- (a) Validity of bid shorter than the validity indicated in the Tender.
- (b) Original Bid Security not received within the stipulated date & time mentioned in the Tender.
- (c) Bid Security with (i) Validity shorter than the validity indicated in Tender and/or (ii) Bid Security amount lesser than the amount indicated in

the Tender.

- (d) In case the Party refuses to sign Integrity Pact.
- (e) Average Annual Turnover of a bidder lower than the average Annual turnover mentioned in the Tender.

2.0 BID EVALUATION CRITERIA (BEC)

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.

B) COMMERCIAL:

- i). To evaluate the inter-se-ranking of the offers, Assam Entry Tax on purchase value will be loaded as per prevailing Govt. of Assam guidelines as applicable on bid closing date. Bidders may check this with the appropriate authority while submitting their offer.
- ii) Priced bids of only those bidders will be opened whose offers are found technically acceptable. The technically acceptable bidders will be informed before opening of the "priced bid".
- iii). To ascertain the substantial responsiveness of the bid OIL reserves the right to ask the bidder for clarification in respect of clauses covered under BRC also and such clarifications fulfilling the BRC clauses in toto must be received on or before the deadline given by the company, failing which the offer will be summarily rejected.

NOTE:

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

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TECHNICAL SPECIFICATIONS WITH QUANTITY

Tender No & Date: SDI0170P16 DT: 06.01.2016

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

ITEM NO. 10

SUPPLY OF 03 NOS., 415 V AC, 50HZ OUTDOOR TYPE MAIN FEEDER PILLAR FOR MTDC (2 NOS) & SURAKSHA NAGAR(1NOS)

1.0 Scope of work:

This specification covers Design, fabrication, supply, installation, testing and commissioning of 03 nos., 415 V AC, 50HZ Outdoor Type Main Feeder Pillar with MCCBs as incomer and MCCBs as outgoing feeders in a single transportable unit ready for operation on being installed in a fixed position. The feeder pillars shall be installed on a suitable RCC foundation to take the load of feeder pillars. The design, materials and components of feeder pillar shall, therefore, be of the highest order to ensure continuous and trouble-free service over the years. All the feeder pillar shall be installed and commissioned in housing area and industrial/civic areas of OIL

2.0 Standards:

All components used in the manufacture of the Feeder Pillars shall confirm to the relevant IEC/BIS standard specification and especially to the followings:

- (i) IS:13947-1993/IEC:60947 General arrangement for switchgear and control gear for voltage not exceeding 1000 V
- (ii) IS: 12063-1987/IEC:60529 Degrees of Protection provided by enclosures of electrical Equipments
- (iii) IS: 5/2004 Colour for ready mixed paints and enamel
- (iv) IS: 732/1989 Code of Practice for Electrical Wiring Installations
- (v) IS: 5039/1983 Distribution pillars for voltage not exceeding 1000 V
- (vi) IS/IEC: 127-1994 Miniature Fuses- Fuse Holders for Miniature Cartridge Fuse Links Specification
- (vii) IS:2551-1982 Danger Notice Plates
- (viii) IEC:60664 Insulation co-ordination within low voltage system including clearance creepage distances for equipment
- 3.0 Technical Requirements:
- 3.1 Details of components:

Type of Feeder Pillar: 3 nos Outdoor Type

A.Incoming Feeder & Instrument:

I.630A, MCCB: 2 Nos

The Microprocessor based MCCB shall have following specification

a) Rating: 4 pole, 630 A, minimum 50 kA, 50Hz, 415VAC

- b) Settings:
- i. Over Current: Ir=0.4 to $1\times$ In; Tr= 5 to 30 Seconds
- ii. Short Circuit: Im= 1.5 to $10\times Ir$; Tm= 0.01 to 0.3 Seconds
- iii. Instantaneous protection against short Circuit with fixed threshold If=5kA
- iv. Earth-fault: Ig=0.2 to $1\times In$; Tg=0.1 to 1 Seconds
- c) Each Outgoing feeder of 400A shall be equipped with following:
- i. Core balance current transformer(CBCT) with earth leakage relay (ELR) for providing Earth leakage protection; Current Settings: 30mA to 30A; Time Settings: 0.15Sec to 5 Sec: 1set
- ii. Digital Multifunction Meter, V+A+Hz+KW+PF+KWh+Max.Demand with RS-485 port : 1 No
- iii. Current Transformer, 600/5, 15VA, Class 1 to IS: 2705, Cast resin type: 3 Nos
- iv. MCCBs shall be actuated by a handle that clearly indicates the three position ON/ OFF/ TRIP.
- v. 3 Nos LED for R, Y, B phases shall be provided showing availability of power: 3 Nos
- vi. Moulded HRC Fuse Holders with HRC Fuses for control circuit protection : 3 Nos

B.Outgoing Feeders:

I. 400A, MCCB - 4 nos

The Microprocessor based MCCB shall have following specification

- d) Rating: 4 pole, 400 A, minimum 36kA, 50Hz, 415VAC
- e) Settings:
- i. Over Current: Ir=0.4 to $1\times$ In; Tr= 3 to 15 Seconds
- ii. Short Circuit: Im= 1.5 to $10\times Ir$; Tm= 0.01 to 0.5 Seconds
- iii. Instantaneous protection against short Circuit with fixed threshold If=5kA
- iv. Earth-fault: Ig=0.2 to $1\times In$; Tg=0.1 to 1 Seconds
- f) Each Outgoing feeder of 400A shall be equipped with following:
- i. Core balance current transformer(CBCT) with earth leakage relay (ELR) for providing Earth leakage protection; Current Settings: 30mA to 30A; Time Settings: 0.15Sec to 5 Sec: 1set
- ii. Digital Ammeter, 3 Phase with inbuilt selector switch with size 96×96 mm. : 1 Set

II. 250 A.MCCB:4Nos

The Microprocessor based MCCB shall have following setting

- a) 4 pole, 250 A, minimum 36kA, 50Hz, 415VAC
- b) Settings:
- i) Over-Current: Ir=0.4 to $1\times$ In; Tr= 3 to 15 Seconds
- ii) Short Circuit: Im= 1.5 to $10\times Ir$; Tm= 0.01 to 0.5 Seconds
- iii) Instantaneous protection against short circuit with fixed threshold If=5kA
- iv) Earth Fault Ig=0.2 to $1\times$ In; Tg= 0.1 to 1 Seconds
- c) Each Outgoing feeder of 250 A shall be equipped with following:
- i)Core balance current transformer (CBCT) with earth leakage relay(ELR) for providing Earth leakage protection (CBCT & ELR): Current Settings: 30mA to 30A; Time Settings: 0.15Sec to 5 Sec: 1set
- ii) Digital Ammeter, 3 Phase with inbuilt selector switch with size 96×96 mm. : 1 Set

III. 125 A, MCCB: 2 Nos

The Microprocessor based MCCB shall have following setting

- a) 4 Pole, 125 A minimum 36 KA,50Hz, 415 V AC
- b) Settings:
- i) Over-Current: Ir=0.4 to $1\times$ In; Tr= 3 to 15 Seconds

- ii) Short Circuit: Im= 1.5 to 10×Ir; Tm= 0.01 to 0.5 Seconds
- iii) Instantaneous protection against short circuit with fixed threshold If=5kA
- iv) Earth Fault Ig=0.2 to $1\times$ In; Tg=0.1 to 1 Seconds
- c) Each Outgoing feeder of 125A shall be equipped with following:
- i) Core balance current transformer (CBCT) with earth leakage relay (ELR) for providing Earth leakage protection (CBCT & ELR): Current Settings: 30mA to 30A; Time Settings: 0.15Sec to 5 Sec: 1set
- ii) Digital Ammeter, 3 Phase with inbuilt selector switch with size 96×96 mm. : 1 Set
- IV) 63 A,36KA, 4P thermal MCCB 63A and street light control cubicle: 1 set The Cubicle shall have, The MCCB and prewired ready to use streetlight control cubicle shall be as per the following specification
- i. Outgoing from 63 A MCCB shall be terminated to the incomer of street light control panel ii. 1 No. Time Switch, 230V AC. Make: Legrand catalogue no. 04761/Merlin Gerin Ref no. 15336/Indo Asian cat no:TA916422
- iii. Fuse carrier & base of 4 amps of SM type. Necessary control wiring shall be carried out with single core 2.5sqmm stranded copper wire
- iv. 1 No. T.P. Power Contactor, 3 Pole, 40 Amps, 230 V (Make: GE/Siemens /Merlin Gerin).
- v. Incomer power shall be tapped from 63 A MCCB. Digital timer is used for auto on/off street light. Selector switch for selecting Auto mode and Manual mode. When selecting auto mode, Timer will switch on/off the contactor as per the time setting done on Digital timer. When selecting manual mode, push button be shall be fixed on the door of cubicle to switch on/off the Contactor.

C: Bus-bar:

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 Aluminium bus-bars, conforming to BIS. Current rating of bus bar sections 1600 A 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, make Raychem RPG, equivalent reputed make and shall be supported at required intervals with non- hygroscopic, non-deteriorating, and non inflammable SMC / FRP supports-Devi Polymer/Power mate/ Sintex /Electro fibre make 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 carried out 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 manufacturers prototype panel must have type test certificate from CPRI/equivalent testing lab of national reputed for short circuit withstand of 50kA for one second on minimum 2000Amps Bus Bars, Temperature rise test. A copy of the test certificate shall be enclosed with the offer

All necessary interconnection shall be duly tested as per IS: 8623

D: Make & Specification:

The Make and Model No. of the components shall be as follows: a)Digital Multifunction Meter:

Make: Schneider Power logic PM200 series/ HPL-Socomec (Diris A41)/ Siemens

PAC3200/Secure

b)Digital Ammeter with inbuilt selector switch:

Make: Schneider electric/ HPL/ LT/ Siemens

c)Current Transformer:

Make: Kappa/ Precise Electrical/ Pragati Electrical/ Siemens/ L&T/ Schneider electric

d)LED:

Make: Binay/ Tecnic/ L&T/ Siemens

e)HRC Fuses:

Make: GE/ Siemens/ L&T/ Schneider/ Cooper Bussman

F) MCCB:

Make:

i.Schneider Electric (Merlin Gerin): model compact NSX with electronic trip unit with LSIG protection

ii.ABB - Tmax Series, model-T4/TP5 electronic release LSIG

iii.Siemens India Ltd: Sentron VL MCCB, electronic release and microprocessor based ETU with LSIG protection.

iv.Legrand: Model- DPX series with electronic release with LSIG protection.

vi)Indo Asian: X-Tec MCCB with Electronic release protection

g)DigitalEarth leakage relay with CBCT

Make:

i.Legrand:

ii.Schneider Electric (Merlin Gerin): Vigirex Earth Leakage Relay: RH 99

iii.GE: Type, RD6

iv.Prokdv's: Digital earth leakage relay: Model No.MPEL-02

4.0 Constructional Details:

4.1 General Requirements:

i.Feeder pillar shall be self-supporting, Outdoor Type, dust, vermin/rodent and weatherproof, suitable for mounting on a RCC foundation. Any left holes/cable entries shall be blocked by using detachable metallic sheets to prevent entry of rodent/reptiles.

ii. The structure of feeder pillar shall be made with 2mm thick CRCA sheet and (75x40x6) mm base channel as required.

iii. The degree of protection of enclosure shall be IP-55.

iv. Heavy duty Lifting hooks (4 No's heavy duty lifting hooks) shall be provided for lifting of feeder pillar.

v.The door shall be in parts and shall have locking arrangement with special type key, additional facility for padlocking shall be provided at Doors on both back and front sides of FP along with 2 nos 5 lever lock. Danger Plate fitted on both sides.

vi.The feeder pillar shall be double door type and the main components of feeder pillar shall be operated after opening of 1st door. After opening of first door, handle of MCCB and metering etc can be viewed from outside.

vii. Canopy type sloping roof, in addition to the main enclosure roof, shall be provided to prevent ingress and accumulation of rain water and provide additional protection against leakage. The roof extension shall cover the top side of doors to prevent leakage of water.

viii. For cooling of the component louver arrangement shall be made in the feeder pillar

ix.Feeder pillar shall have a heavy duty base framework. The frame design shall be such that the height between bottom cable entry plate and the connection hole of brought out link of incoming, outgoing MCCBs shall be minimum 450mm.

x. The entire sheet-work shall be given minimum ten tank anti-rust treatment as per IS and then

powder coated (min 50 micron thick) in light grey shade no 631 as per IS:631.

xi.The design should be as per IS-8623, 13947, 13703, 4237 and IEC-61439 and suitable for ambient-40°C (Max)/ 5°C (Min), humidity-95% (Max). All components used must be suitable for the environment as mentioned.

xii. All hardwires should be of high tensile steel & Zinc passivated. Size of spring washers & flat washers should be as per relevant IS for individual bolt.

xiii.All the components shall be mounted on separate steel plate with necessary stiffeners or suitable channels so that all the components can be checked and replaced from front side after opening the door.

xiv. Marking of All incoming & outgoing feeders shall be done in front and back,as follows: a)One set of Permanant Feeder marking using riveted engraved metallic or mica labels b)one set of Lable stickers

c)The text for marking shall be provided by OIL along with the drawing approval

xv.All incoming and outgoing cables shall enter the enclosure from bottom side. Bottom plate shall have individual detachable gland plates for all cables. These detachable plates shall be accessible and removable from inside. All cable entry plates shall have knockouts.

4.2 General Technical Requirements:

i.All connection links between bus-bar and MCCBs & brought out links shall be made with rectangular sections of copper confirming to IS 5082. Current rating of links shall be minimum 1.5 times (rating for unassembled sections) the device rating. Spreader bars supplied by MCCB manufacturer shall be used for all incoming and outgoing terminations for all MCCBs.

ii.All control wiring shall be done with single core 2.5sqmm, FRLS PVC insulated, 1100v grade, IS approved stranded copper cable.

iii. All control cable ends shall have crimped copper lugs for proper termination and ferrules for identification of wiring. All the control circuit wiring shall be connected with terminals blocks, ferules for easy identification

iv. All panel doors shall be earthed.

v.No bimetallic joints shall be permitted in the links of connections.

vi. Special non-deteriorating Neoprene rubber gaskets shall be provided at panel doors.

vii. Enclosure protection of feeder pillar shall be minimum IP-55.

viii.Sufficient space should be provided for proper glanding, dressing, connecting up and maintenance of all cables. Sufficient nos. of cable entry holes shall be provided in the bottom plate.

ix. All items shall be duly fixed with zinc passivated high tension hard-wares. DIN channel shall be used for components having facility to mount on DIN channel.

x.All items of the feeder pillar must be approved by ISI or IEC (with latest amendments) for performance and safety.

xi. 3 nos fuse carrier and base of 16 Amp of SM type with 4 Amp HRC fuses and fuse link shall be provided for power supply of multifunction meter. The auxiliary power supply of multifunction meter shall be 230 VAC.

xii. Current transformer shall be cast resin type, with accuracy class 0.5.

xiii. 2 No's passivated heavy duty type nuts and bolts shall be provided for connection of earthing on two opposite side.

xiv. For all incoming and outgoing cable connection, brought out terminals shall be provided.

xv. Suitable size of single compression M.S cable gland of size mentioned in the point no. (xvi) for all incoming and outgoing cables along with feeder pillar. Suitable size of holes shall be made into detachable gland plate for incoming and outgoing feeders. The cable gland is to be supplied and fitted in the feeder pillar by bidder as per requirement of incoming and outgoing feeders.

xvi. The feeder pillar shall have provision for

a.Incoming cable entries: suitable for terminating 2nos 3.5×240 sqmm XLPE cable b.Outgoing cable entries:

- i) for 400 A MCCB: Entry hole matching with 3.5×240 sqmm PVCA/XLPE cable for each 400 A compartment
- ii) for 250 A MCCB: Entry hole matching with 3.5×120 sqmm PVCA cable for each 250 A compartment

iii)for 125 A MCCB: Entry hole for 4 x 50 mmsq cable for each 125 A compartment xvii. The connections from MCCB incoming shall be terminated to brought out terminals using spreader links. Suitable provision with cable support for routing and terminating incoming cables from the foundation shall be provided. All cable entries shall be done from bottom side. Separate detachable type gland plates shall be provided for all cables. One additional cable entry gland plate shall be provided in each feeder

- 5. Name Plate and Marking of FP:
- 5.1 Feeder Pillar shall be provided with Aluminum /Stainless steel / Brass nameplate showing the following information indelibly marked in English:
- ¢ Manufacturer's Name
- ¢ OIL's Purchase Order No. & date
- ¢ Manufacturer's Serial Number
- ¢ Year of Manufacture
- ¢ Rated Voltage Rating
- ¢ No. of circuits (incoming & outgoing)
- ¢ Rated Current of incoming circuit
- ¢ Rated Current of outgoing circuit
- ¢ Degree of protection
- 5.2 Danger Notice Plates:

Danger Notice plate shall be provided at the front of the feeder pillar using M5 hot dipped galvanized /stainless steel / brass fasteners (oval head rounded neck bolts with nuts and external tooth lock washers) not removable / accessible from the front i.e. without opening the door / front cover.

5.3. A printed drawing of complete circuits shall be pasted on the outside and inside of door of each feeder pillar mentioning OIL#s order no, WBS no (Provided by OIL at the time of drawing approval).

6.0 Tests:

The following routine tests shall be carried out in accordance with the relevant IS/IEC standards:

A. Routine Tests:

The following routine tests shall be carried out at manufacturers' works during inspection:

- (i). Overall Dimensions Checking.
- ii). Insulation Resistance Tests.
- (iii). High Voltage Test at 2500 V, 50 Hz AC for one minute.
- (iv). Functional Test and verification of continuity of protective circuits
- (v). Verification of clearances &creepage distances
- B.Acceptance Test:

Temperature rise test on any one feeder pillar shall be carried out in addition to routine test on one random sample out of the lot offered for inspection and type test certificate shall be produced during inspection.

7.0 Test Certificates:

Copy of type test conducted on similar type FPby NABL accredited laboratories for the following shall be submitted with the offer.

a) Short time current withstand test

- b) Temperature rise test
- c) Degree of protection
- 8.0 Inspection

The feeder pillar shall be inspected by Oil's Engineer at manufacturer's works prior to dispatch. Routine test on the individual components and on feeder pillar in accordance with IS shall be carried out at the manufactures works which shall be witnessed by OIL Engineer. The supplier will have to give 30 days advance intimation to enable depute OIL representative for witnessing the acceptance and routine test.

- 9.0 Drawing & Documents:
- 9.1 Drawings/Documents to be submitted along with the offer:

The following drawings & documents shall be prepared based on NIT's specifications and statutory requirements with complete BOM and shall be submitted with the bid:

i.Completely filled-in technical parameters

ii.SLD of Feeder Pillar

iii.Bill of Material (BOM)

iv.Foundation plan

v. GA drawing of the Feeder Pillar showing dimensional details

Vi. Type Test certificates for tests conducted earlier on similar equipment shall be furnished

9.2 : Documents/drawings to be submitted for approval after the award of the order:

The following drawings & documents shall be submitted for approval:

GA drawing, SLD, termination details, wiring diagram and complete bill of material of the Feeder Pillar shall be submitted to OIL for approval within 45 days after placement of the order.

9.3: Documents/drawings to be submitted along with the supply

Four sets of the following documents shall be submitted with the supply

- i. Approved GA drawing showing all details, including constructional detail and component layout for panels
- ii. Approved SLD & Schematic Diagram
- ii. Technical specification of all equipment including Manual/Catalogue/installation instructions etc
- iii. Bill Of Materials with technical details
- iv. Routine, Acceptance & Type test certificates.
- v. Guarantee Certificate
- vi. List of recommended spares with pricing and part no. for two years operation

Note: the drawing shall be approved by OIL within 30 Days of submission of drawing. Delay in drawing approval due to error correction in drawings submitted will to be parties account.

10. Warranty:

The goods/equipments shall be of best quality and workmanship. Feeder pillar and all its components shall be guaranteed for twelve (12) months from the date of commissioning against defects arising due to material, workmanship or design. The party shall agree to replace/repair the defective components at their cost during guarantee period.

ITEM NO. 20

INSTALLATION, TESTING AND COMMISSIONING OF FP - QTY - 01 AU

Installation, Testing and Commissioning of FP: Installation, testing and commissioning includes making of RCC foundation for FP, fixing of two numbers earth electrodes, making necessary earth connection from FP to earth electrode, Termination of incoming cable at FP with proper size of gland and lugs with testing of all ougoings.

a) Foundation of feeder pillar:

RCC Foundation of Feeder Pillar shall be made by bidder on which feeder pillar shall be installed. The foundation plan & loading details, GA & structural drawing of feeder pillar shall be approved by OIL before starting of construction.

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. for each feeder pillar. Value of earth resistance shall be maintained for each feeder pillar to be equal to or less than 1.0 Ohms when connected all the earth electrodes together.

ITEM NO. 30

SUPPLY OF 03 NOS., 415 V AC, 50HZ OUTDOOR TYPE SUB FEEDER PILLAR FOR KV (1 NOS) & SURAKSHA NAGAR(2NOS)

1.0 Scope of work:

This specification covers Design, fabrication, supply, installation, testing and commissioning of 03 nos., 415 V AC, 50HZ Outdoor Type Sub Feeder Pillar with MCCBs as incomer and MCCBs as outgoing feeders in a single transportable unit ready for operation on being installed in a fixed position. The feeder pillars shall be installed on a suitable RCC foundation to take the load of feeder pillars. The design, materials and components of feeder pillar shall, therefore, be of the highest order to ensure continuous and trouble-free service over the years. All the feeder pillar shall be installed and commissioned in housing area and industrial/civic areas of OIL. 2.0 Standards:

All components used in the manufacture of the Feeder Pillars shall confirm to the relevant IEC/BIS standard specification and especially to the followings:

- (i) IS:13947-1993/IEC:60947 General arrangement for switch gear and control gear for voltage not exceeding $1000\ V$
- (ii) IS: 12063-1987/IEC:60529 Degrees of Protection provided by enclosures of electrical Equipments
- (iii) IS: 5/2004 Colour for ready mixed paints and enamel
- (iv) IS: 732/1989 Code of Practice for Electrical Wiring Installations
- (v) IS: 5039/1983 Distribution pillars for voltage not exceeding 1000 V
- (vi) IS/IEC: 127-1994 Miniature Fuses- Fuse Holders for Miniature Cartridge Fuse Links Specification
- (vii) IS:2551-1982 Danger Notice Plates
- (viii) IEC:60664 Insulation co-ordination within low voltage system including clearance creepage distances for equipment
- 3.0 Technical Requirements:

3.1 Details of components:

Type of Feeder Pillar: 3 nos Outdoor Type Sub Feeder Pillar

A.Incoming Feeder & Instrument:

I.400A, MCCB: 2 Nos

The Microprocessor based MCCB shall have following specification

- a) Rating: 4 pole, 400 A, minimum 36 kA, 50Hz, 415VAC
- b) Settings:

- i. Over Current: Ir=0.4 to $1\times$ In; Tr= 5 to 30 Seconds
- ii. Short Circuit: Im= 1.5 to 10×Ir; Tm= 0.01 to 0.3 Seconds
- iii. Instantaneous protection against short Circuit with fixed threshold If=5kA
- iv. Earth-fault: Ig = 0.2 to $1 \times In$; Tg = 0.1 to 1 Seconds
- c) Each Outgoing feeder of 400A shall be equipped with following:
- i. Core balance current transformer(CBCT) with earth leakage relay (ELR) for providing Earth leakage protection; Current Settings: 30mA to 30A; Time Settings: 0.15Sec to 5 Sec: 1set
- ii. Digital Multifunction Meter, V+A+Hz+KW+PF+KWh+Max.Demand with RS-485 port : 1 No
- iii. Current Transformer, 400/5, 15VA, Class 1 to IS: 2705, Cast resin type: 3 Nos
- iv. MCCBs shall be actuated by a handle that clearly indicates the three position ON/ OFF/ TRIP
- v. 3 Nos LED for R, Y, B phases shall be provided showing availability of power: 3 Nos
- vi. Moulded HRC Fuse Holders with HRC Fuses for control circuit protection : 3 Nos

B.Outgoing Feeders:

I. 250 A,MCCB:6Nos

The Microprocessor based MCCB shall have following setting

- a) 4 pole, 250 A, minimum 36kA, 50Hz, 415VAC
- b) Settings:
- i) Over-Current: Ir=0.4 to $1\times$ In; Tr= 3 to 15 Seconds
- ii) Short Circuit: Im= 1.5 to 10×Ir; Tm= 0.01 to 0.5 Seconds
- iii) Instantaneous protection against short circuit with fixed threshold If=5kA
- iv) Earth Fault Ig=0.2 to 1×In; Tg= 0.1 to 1 Seconds
- c) Each Outgoing feeder of 250 A shall be equipped with following:
- i)Core balance current transformer (CBCT) with earth leakage relay(ELR) for providing Earth leakage protection (CBCT & ELR): Current Settings: 30mA to 30A; Time Settings: 0.15Sec to 5 Sec: 1set
- ii) Digital Ammeter, 3 Phase with inbuilt selector switch with size 96×96 mm. : 1 Set

II. 125 A. MCCB: 2 Nos

The Microprocessor based MCCB shall have following setting

- a) 4 Pole, 125 A minimum 36 KA,50Hz, 415 V AC
- b) Settings:
- i) Over-Current: Ir=0.4 to $1\times$ In; Tr= 3 to 15 Seconds
- ii) Short Circuit: Im= 1.5 to 10×Ir; Tm= 0.01 to 0.5 Seconds
- iii) Instantaneous protection against short circuit with fixed threshold If=5kA
- iv) Earth Fault Ig=0.2 to $1\times$ In; Tg= 0.1 to 1 Seconds
- c) Each Outgoing feeder of 125A shall be equipped with following:
- i) Core balance current transformer (CBCT) with earth leakage relay (ELR) for providing Earth leakage protection (CBCT & ELR): Current Settings: 30mA to 30A; Time Settings: 0.15Sec to 5 Sec: 1set
- ii) Digital Ammeter, 3 Phase with inbuilt selector switch with size 96×96 mm. : 1 Set
- IV) 63 A,36KA, 4P thermal MCCB 63A and street light control cubicle: 1 set The Cubicle shall have, The MCCB and prewired ready to use streetlight control cubicle shall be as per the following specification

- i. Outgoing from 63 A MCCB shall be terminated to the incomer of street light control panel
- ii. 1 No. Time Switch, 230V AC. Make: Legrand catalogue no. 04761/Merlin Gerin Ref no. 15336/Indo Asian cat no:TA916422
- iii. Fuse carrier & base of 4 amps of SM type. Necessary control wiring shall be carried out with single core 2.5sqmm stranded copper wire
- iv. 1 No. T.P. Power Contactor, 3 Pole, 40 Amps, 230 V (Make: GE/Siemens /Merlin Gerin).
- v. Incomer power shall be tapped from 63 A MCCB. Digital timer is used for auto on/off street light. Selector switch for selecting Auto mode and Manual mode. When selecting auto mode, Timer will switch on/off the contactor as per the time setting done on Digital timer. When selecting manual mode, push button be shall be fixed on the door of cubicle to switch on/off the Contactor.

C: Bus-bar:

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 Aluminium bus-bars, conforming to BIS. Current rating of bus bar sections 1000 A 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, make Raychem RPG, equivalent reputed make and shall be supported at required intervals with non- hygroscopic, non-deteriorating, and non inflammable SMC / FRP supports-Devi Polymer/Power mate/ Sintex /Electro fibre make 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 carried out 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 manufacturers prototype panel must have type test certificate from CPRI/equivalent testing lab of national reputed for short circuit withstand of 50kA for one second on minimum 2000Amps Bus Bars, Temperature rise test. A copy of the test certificate shall be enclosed with the offer

All necessary interconnection shall be duly tested as per IS: 8623

D: Make & Specification:

The Make and Model No. of the components shall be as follows:

a) Digital Multifunction Meter:

Make: Schneider Power logic PM200 series/ HPL-Socomec (Diris A41)/ Siemens PAC3200/Secure

b)Digital Ammeter with inbuilt selector switch:

Make: Schneider electric/ HPL/ LT/ Siemens

c)Current Transformer:

Make: Kappa/ Precise Electrical/ Pragati Electrical/ Siemens/ L&T/ Schneider electric

d)LED:

Make: Binay/ Tecnic/ L&T/ Siemens

e)HRC Fuses:

Make: GE/ Siemens/ L&T/ Schneider/ Cooper Bussman

F) MCCB:

Make:

i.Schneider Electric (Merlin Gerin): model compact NSX with electronic trip unit with LSIG protection

ii.ABB - Tmax Series, model-T4/TP5 electronic release LSIG

iii.Siemens India Ltd: Sentron VL MCCB, electronic release and microprocessor based ETU with LSIG protection.

iv.Legrand: Model- DPX series with electronic release with LSIG protection.

vi)Indo Asian: X-Tec MCCB with Electronic release protection

g)DigitalEarth leakage relay with CBCT

Make: i.Legrand:

ii.Schneider Electric (Merlin Gerin): Vigirex Earth Leakage Relay: RH 99

iii.GE: Type, RD6

iv.Prokdv's: Digital earth leakage relay: Model No.MPEL-02

4.0 Constructional Details:

4.1 General Requirements:

i.Feeder pillar shall be self-supporting, Outdoor Type, dust, vermin/rodent and weatherproof, suitable for mounting on a RCC foundation. Any left holes/cable entries shall be blocked by using detachable metallic sheets to prevent entry of rodent/reptiles.

- ii. The structure of feeder pillar shall be made with 2mm thick CRCA sheet and (75x40x6) mm base channel as required.
- iii. The degree of protection of enclosure shall be IP-55.
- iv. Heavy duty Lifting hooks (4 No's heavy duty lifting hooks) shall be provided for lifting of feeder pillar.
- v.The door shall be in parts and shall have locking arrangement with special type key, additional facility for padlocking shall be provided at Doors on both back and front sides of FP along with 2 nos 5 lever lock. Danger Plate fitted on both sides.
- vi. The feeder pillar shall be double door type and the main components of feeder pillar shall be operated after opening of 1st door. After opening of first door, handle of MCCB and metering etc can be viewed from outside.
- vii. Canopy type sloping roof, in addition to the main enclosure roof, shall be provided to prevent ingress and accumulation of rain water and provide additional protection against leakage. The roof extension shall cover the top side of doors to prevent leakage of water.
- viii. For cooling of the component louver arrangement shall be made in the feeder pillar
- ix.Feeder pillar shall have a heavy duty base framework. The frame design shall be such that the height between bottom cable entry plate and the connection hole of brought out link of incoming, outgoing MCCBs shall be minimum 450mm.
- x.The entire sheet-work shall be given minimum ten tank anti-rust treatment as per IS and then powder coated (min 50 micron thick) in light grey shade no 631 as per IS:631.
- xi.The design should be as per IS-8623, 13947, 13703, 4237 and IEC-61439 and suitable for ambient- 40° C (Max)/ 5° C (Min), humidity-95% (Max). All components used must be suitable for the environment as mentioned.
- xii. All hardwires should be of high tensile steel & Zinc passivated. Size of spring washers & flat washers should be as per relevant IS for individual bolt.
- xiii.All the components shall be mounted on separate steel plate with necessary stiffeners or suitable channels so that all the components can be checked and replaced from front side after opening the door.
- xiv. Marking of All incoming & outgoing feeders shall be done in front and back,as follows: a)One set of Permanant Feeder marking using riveted engraved metallic or mica labels b)one set of Lable stickers
- c) The text for marking shall be provided by OIL along with the drawing approval
- xv.All incoming and outgoing cables shall enter the enclosure from bottom side. Bottom plate shall have individual detachable gland plates for all cables. These detachable plates shall be accessible and removable from inside. All cable entry plates shall have knockouts.

- 4.2 General Technical Requirements:
- i.All connection links between bus-bar and MCCBs & brought out links shall be made with rectangular sections of copper confirming to IS 5082. Current rating of links shall be minimum 1.5 times (rating for unassembled sections) the device rating. Spreader bars supplied by MCCB
- 1.5 times (rating for unassembled sections) the device rating. Spreader bars supplied by MCCI manufacturer shall be used for all incoming and outgoing terminations for all MCCBs.
- ii.All control wiring shall be done with single core 2.5sqmm, FRLS PVC insulated, 1100v grade, IS approved stranded copper cable.
- iii. All control cable ends shall have crimped copper lugs for proper termination and ferrules for identification of wiring. All the control circuit wiring shall be connected with terminals blocks, ferules for easy identification
- iv. All panel doors shall be earthed.
- v.No bimetallic joints shall be permitted in the links of connections.
- vi. Special non-deteriorating Neoprene rubber gaskets shall be provided at panel doors.
- vii. Enclosure protection of feeder pillar shall be minimum IP-55.
- viii.Sufficient space should be provided for proper glanding, dressing, connecting up and maintenance of all cables. Sufficient nos. of cable entry holes shall be provided in the bottom plate.
- ix. All items shall be duly fixed with zinc passivated high tension hard-wares. DIN channel shall be used for components having facility to mount on DIN channel.
- x.All items of the feeder pillar must be approved by ISI or IEC (with latest amendments) for performance and safety.
- xi. 3 nos fuse carrier and base of 16 Amp of SM type with 4 Amp HRC fuses and fuse link shall be provided for power supply of multifunction meter. The auxiliary power supply of multifunction meter shall be 230 VAC.
- xii. Current transformer shall be cast resin type, with accuracy class 0.5.
- xiii. 2 No's passivated heavy duty type nuts and bolts shall be provided for connection of earthing on two opposite side.
- xiv. For all incoming and outgoing cable connection, brought out terminals shall be provided.
- xv. Suitable size of single compression M.S cable gland of size mentioned in the point no. (xvi) for all incoming and outgoing cables along with feeder pillar. Suitable size of holes shall be made into detachable gland plate for incoming and outgoing feeders. The cable gland is to be supplied and fitted in the feeder pillar by bidder as per requirement of incoming and outgoing feeders.
- xvi. The feeder pillar shall have provision for
- a.Incoming cable entries: suitable for terminating 2nos 3.5×240 sqmm XLPE cable
- b.Outgoing cable entries:
- i) for 250 A MCCB: Entry hole matching with 3.5×120 sqmm PVCA cable for each 250 A compartment
- ii)for 125 A MCCB: Entry hole for 4 x 50 mmsq cable for each 125 A compartment xvii. The connections from MCCB incoming shall be terminated to brought out terminals using spreader links. Suitable provision with cable support for routing and terminating incoming cables from the foundation shall be provided. All cable entries shall be done from bottom side. Separate detachable type gland plates shall be provided for all cables. One additional cable entry gland plate shall be provided in each feeder
- 5. Name Plate and Marking of FP:
- 5.1 Feeder Pillar shall be provided with Aluminum /Stainless steel / Brass nameplate showing the following information indelibly marked in English:
- ¢ Manufacturer's Name
- ¢ OIL's Purchase Order No. & date

- ¢ Manufacturer's Serial Number
- ¢ Year of Manufacture
- ¢ Rated Voltage Rating
- ¢ No. of circuits (incoming & outgoing)
- ¢ Rated Current of incoming circuit
- ¢ Rated Current of outgoing circuit
- ¢ Degree of protection
- 5.2 Danger Notice Plates:

Danger Notice plate shall be provided at the front of the feeder pillar using M5 hot dipped galvanized /stainless steel / brass fasteners (oval head rounded neck bolts with nuts and external tooth lock washers) not removable / accessible from the front i.e. without opening the door / front cover.

5.3. A printed drawing of complete circuits shall be pasted on the outside and inside of door of each feeder pillar mentioning OIL#s order no, WBS no (Provided by OIL at the time of drawing approval).

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The following routine tests shall be carried out in accordance with the relevant IS/IEC standards:

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Temperature rise test on any one feeder pillar shall be carried out in addition to routine test on one random sample out of the lot offered for inspection and type test certificate shall be produced during inspection.

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Copy of type test conducted on similar type FPby NABL accredited laboratories for the following shall be submitted with the offer.

- a) Short time current withstand test
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- 8.0 Inspection

The feeder pillar shall be inspected by Oil's Engineer at manufacturer's works prior to dispatch. Routine test on the individual components and on feeder pillar in accordance with IS shall be carried out at the manufactures works which shall be witnessed by OIL Engineer. The supplier will have to give 30 days advance intimation to enable depute OIL representative for witnessing the acceptance and routine test.

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- 9.1 Drawings/Documents to be submitted along with the offer:

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iii.Bill of Material (BOM)

iv.Foundation plan

v. GA drawing of the Feeder Pillar showing dimensional details

Vi. Type Test certificates for tests conducted earlier on similar equipment shall be furnished

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- vi. List of recommended spares with pricing and part no. for two years operation

Note: the drawing shall be approved by OIL within 30 Days of submission of drawing. Delay in drawing approval due to error correction in drawings submitted will to be parties account

10. Warranty:

The goods/equipments shall be of best quality and workmanship. Feeder pillar and all its components shall be guaranteed for twelve (12) months from the date of commissioning against defects arising due to material, workmanship or design. The party shall agree to replace/repair the defective components at their cost during guarantee period.

ITEM NO. 40

INSTALLATION, TESTING AND COMMISSIONING OF FP: QTY = 01 AU

Installation, Testing and Commissioning of FP: Installation, testing and commissioning includes making of RCC foundation for FP, fixing of two numbers earth electrodes, making necessary earth connection from FP to earth electrode, Termination of incoming cable at FP with proper size of gland and lugs with testing of all ougoings.

a) Foundation of feeder pillar:

RCC Foundation of Feeder Pillar shall be made by bidder on which feeder pillar shall be installed. The foundation plan & loading details, GA & structural drawing of feeder pillar shall be approved by OIL before starting of construction.

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. for each feeder pillar. Value of earth resistance shall be maintained for each feeder pillar to be equal to or less than 1.0 Ohms when connected all the earth electrodes together.

NOTE:

FOR ALL ITEMS: ALL ITEMS WILL BE PROCURED FROM THE SAME SOURCE AND EVALUATION WILL BE DONE ACCORDINGLY.

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

Annexure- DDD

INTEGRITY PACT

Between

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

And

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

Preamble:

The Principal intends to award, under laid down organizational procedures, contract/s for Tender No. **SDI0170P16** The Principal values full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder/s and Contractor/s.

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

Section 1 - Commitments of the Principal

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

Section 2 - Commitments of the Bidder/Contractor

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

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

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

1. If the Bidder/Contractor has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Principal is entitled also to exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressions within the company hierarchy of the Bidder and the amount of the damage. The exclusion will be imposed for a minimum of 6 months and maximum of 3 years.

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

Section 4 - Compensation for Damages

- 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)

- 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 07.02.2016 .	Witness 2 :

Technical Bid Checklist

Annexure-EEE

Tender No.	
Bidder's Name:	

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

NOTE: Please fill up the greyed cells only.

Response Sheet

Annexure-FFF

Tender No.	
Bidders Name	

Bidders Response Sheet

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

NOTE: Please fill up the greyed cells only.

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

Tender No.	:	•••••
Name of Beneficiary	:M/s	
Vendor Code	:	•••••••••••
Address	:	
Phone No. (Land Line)	:	
Mobile No.	:	
E-mail address	:	
Bank Account No. (Minimum		
Eleven Digit No.)	:	
Bank Name	:	
Branch	:	
Complete Address of your	:	
Bank	:	
IFSC Code of your Bank		
a) RTGS	:	
b) NEFT	:	
PAN	:	
VAT Registration No.	:	
CST Registration No.	:	
Service Tax Registration No.	:	
Provident Fund Registration	:	
our above mentioned accoun	nt directly and we shall not hold	Oil India Limited can be remitted to Oil India Limited responsible if the ount due to incorrect details furnished
	Office Seal	Signature of Vendor

Counter Signed by Banker: Seal of Bank:

Enclosure: Self attested photocopies of the following documents-

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