



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

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FORWARDING LETTER

Tender No. : SDI0837P19 DT: 14.03.2019
Tender Fee : NIL
Bid Security : Applicable
Bidding Type : SINGLE STAGE TWO BID SYSTEM
Bid Closing on : 02.05.2019 (11.00 HRS IST)
Bid Opening on : 02.05.2019 (14.00 HRS IST)
Performance Security : Applicable
Integrity Pact : Applicable

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 <https://www.oil-india.com/>

NOTE: All addenda, Corrigenda, time extension etc. to the tenders will be hosted on above website and e-portal only. Bidders should regularly visit above website and e-portal to keep themselves updated.

The items covered by this enquiry shall be used by Oil India Limited in the PEL/ML areas which are issued/renewed after 01/04/99 and hence concessional rate of GST @5% against Essentiality Certificate for invoice value 1 Lakh and above will be applicable as per Notification No. 3/2017- Integrated/ Central Tax (Rate) dated 28th June, 2017.

In the event of order, OIL will issue Essentiality Certificate (EC), where concessional rate of GST @5% will be applicable. Supplier shall affect dispatch only on receipt of this certificate from OIL, failing which all related liabilities shall be to Supplier's account.

OIL invites Bids for **SUPPLY, INSTALLATION & COMMISSIONING OF 125 KVA NATURAL GAS ENGINE DRIVEN GENERATING SET – QTY = 07 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 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 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 <https://www.oil-india.com/>

NOTE: All addenda, Corrigenda, time extension etc. to the tenders will be hosted on above website and e-portal only. Bidders should regularly visit above website and e-portal to keep themselves updated.

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 Attachment. For details please refer "Vendor User Manual" / "NEW INSTRUCTIONS"**

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Special Notes:

1.0

- a) Bidders who do not have E-tender Login ID and Password should complete their online registration **at least seven (7) days prior to the scheduled bid closing date** and time of the tender. For online registration, Bidder may visit the OIL's E-tender site <https://etender.srm.oilindia.in/irj/portal>
- b) Necessary Login ID & Password will be issued by OIL only after submitting the complete online registration by the Bidder. In the event of late registration/incomplete registration by Bidder, OIL INDIA LIMITED shall not be responsible for late allotment of User ID & Password and request for bid closing date extension on that plea shall not be entertained by Company.
- c) **MSE Units** (Manufacturers/Service Providers only and not their dealers/distributors) who are already registered with District Industry Centers or Khadi & Village Industries Commission or Khadi & Village Industries Board or Coir Board or National Small Industries Corporation or Directorate of Handicrafts & Handloom or any other body specified by Ministry of MSME are **exempted from payment of Bid Security (EMD)** irrespective of their monetary limit, product category and capacity mentioned in their registration, **subject to submission of valid MSE registration certificate issued by appropriate authority.**
- d) For availing benefits under Public Procurement Policy (**Purchase preference**), the interested MSE Bidders must ensure that they are the **manufacturers of the tendered item(s) and registered with the appropriate authority for the said item(s)**. Bids without EMD shall be rejected, if the technical offer does not include a valid copy of relevant MSE Certificate issued by appropriate authority specifying the item as per tender. Therefore, it is in the interest of such MSE Vendors to furnish a copy of complete certificate to the concerned tender handling officer of **OIL at least seven (7) days prior to the scheduled Bid Closing Date of the tender**, seeking clarification/confirmation as to whether their MSE certificate is eligible for EMD exemption or not. **Late communication in this regard and request for bid closing date extension on that plea shall not be entertained by Company.**

NOTE:

In case of MSE/PSUs/ Govt. Bodies / eligible institutions etc., they must apply to concerned tender handling officer, Materials Department, Oil India Limited, P.O. Duliajan, Assam-786602 for waiver of EMD 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 RFX Information > Technical Attachment 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. **For price upload area , please refer “NEW INSTRUCTIONS” Please refer Annex-BB for price schedule.**

2.3 Offer not complying with above submission procedure will be rejected as per Bid Rejection Criteria mentioned in **Annexure-CCC**.

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 through 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:**

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

ii) **SHRI SATYANANDA MISHRA, IAS (Retd.)**
Former Chief Information Commissioner &
Ex-Secretary, DOPT, Govt. of India
E-Mail ID : satyanandamishra@hotmail.com

iii) **SHRI JAGMOHAN GARG**
EX-VIGILANCE COMMISSIONER, CVC
E-mail id: jagmohan.garg@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.

14.0 Bidders are requested to refer to the enclosed **Annexure – BBB** for the Taxes and Duties clauses under GST regime.

15.0 Delivery/collection Instructions in cases where transportation is in OIL's scope:

(i) the suppliers shall be required to deliver the Sundry consignments of weight less than 3 (Three) Tons at the godown/office/collection point of OIL's authorized transporter in various cities.

(ii) consignments weighing more than 3(Three) Tons shall be collected from the supplier's premises/loading points by OIL's authorized transporter.

(iii) the names of OIL's current authorized transporters are:

a) M/s Western Carriers (India) Ltd.

b) M/s DARCL Logistics Limited

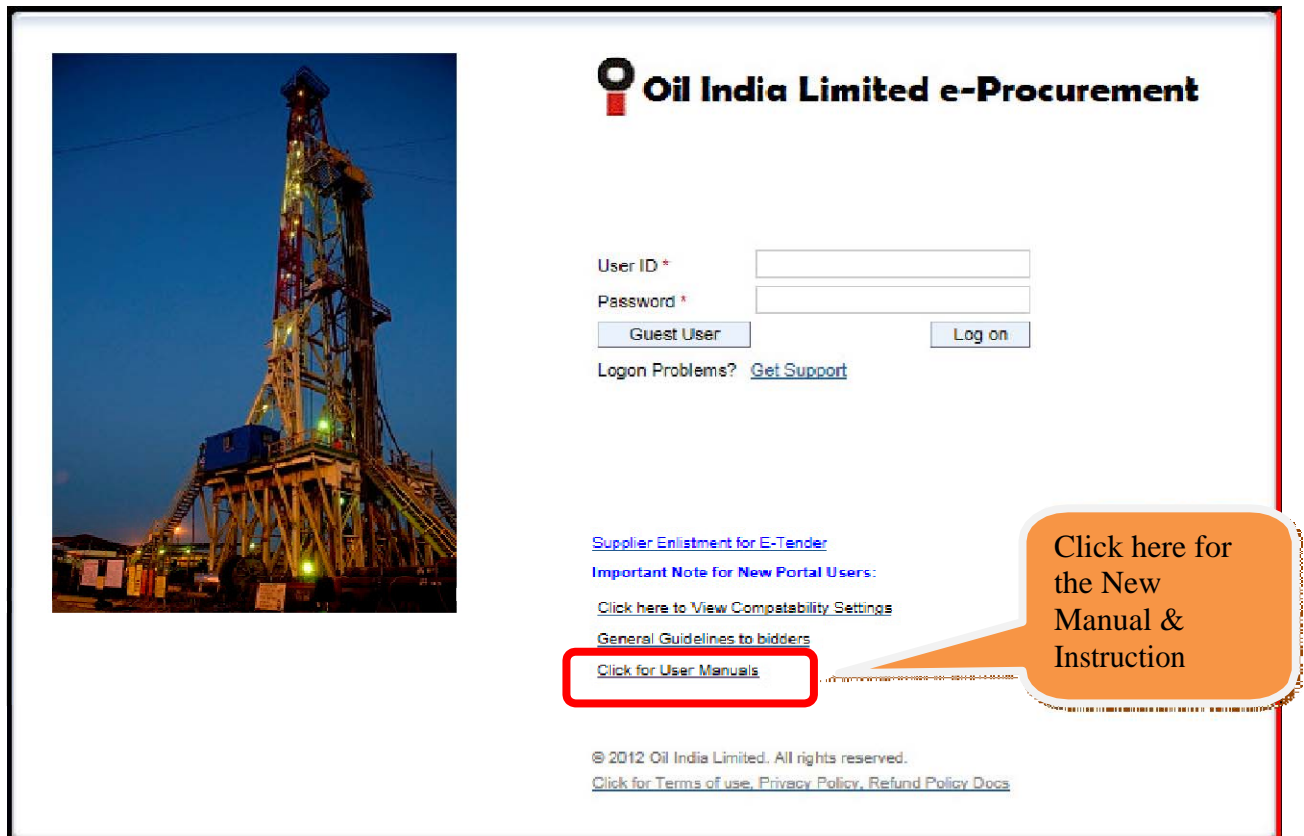
16.0 While submitting the offers bidders are requested to refer to the enclosed **Annexure – BB (Price Bid Format and Evaluation Criteria)**.

17.0 Bidders should fill-up and submit alongwith their bid an **UNDERTAKING towards authenticity of information/documents** furnished by them, as per enclosed **ANNEXURE-K**.

Bidder's are requested to note the above delivery/collection instructions while submitting their offers.

18.0 The applicable GST on the Liquidated Damage if any, shall have to be borne by the Seller. Accordingly, the Liquidated Damage shall be recovered from the seller along with applicable GST.

Please do refer "**NEW INSTRUCTION TO BIDDER FOR SUBMISSION**" for the above two points and also please refer "**New Vendor Manual (effective 12.0.2017)**" available in the login Page of the OIL's E-tender Portal.



Oil India Limited e-Procurement

User ID *

Password *

Logon Problems? [Get Support](#)

[Supplier Enlistment for E-Tender](#)

[Important Note for New Portal Users:](#)

[Click here to View Compatibility Settings](#)

[General Guidelines to bidders](#)

[Click for User Manuals](#)

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Click here for the New Manual & Instruction

19.0 NEW CLAUSE TO BE INCORPORATED IN E-TENDERS: For convenience of the qualified Bidders and to improve transparency, the rates/costs quoted by bidders against OIL's e-tenders shall be available for online viewing by such Bidders whose price bids are opened by Company. A Bidder can view item-wise rates/ costs of all other such peer bidders against the tender immediately after price bid opening, if the e-tender is floated by Company with PRICE CONDITION. In case the Price-Bid is invited by Company through attachment form under "Notes & Attachment" (i.e., NO PRICE Condition), Bidders must upload their detailed Price-Bid as per the prescribed format under "Notes & Attachment", in addition to filling up the "Total Bid Value" Tab taking into account the cost of all individual line items and other applicable charges like freight, tax, duties, levies etc. Under NO PRICE Condition (i.e., Price Bid in attachment form), the "Total Bid

Value" as calculated & quoted by the Bidder shall only be shared amongst the eligible bidders and Company will not assume any responsibility whatsoever towards calculation errors/ omissions therein, if any. Notwithstanding to sharing the "Total Bid Value" or the same is whether filled up by the Bidder or not, Company will evaluate the cost details to ascertain the inter-se-ranking of bidders strictly as per the uploaded attachment and Bid Evaluation Criteria only. Online view of prices as above shall be available to the Bidders only upto seven days from the date of Price-Bid opening of thee-tender.

20.0 DISCLAIMER: Rates/Costs shown above are as calculated/quoted by the respective Bidder. Company does not assume any responsibility and shall not be. liable for any calculation error or omissions. However, for placement of order/award of contract, Company shall evaluate the cost details to determine the inter-se-ranking of Bidders strictly as per their Price-Bids and Bid Evaluation Criteria of the Tender. OIL INDIA LTD accepts no liability of any nature resulting from mismatch of "Total Bid Value" & price submitted under "Notes & Attachment" by any bidder and no claim whatsoever shall be entertained thereof.

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)
CMM (IP)
FOR GM-MATERIALS**

Tender No & Date: SDI0837P19 DT: 14.03.2019

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 of Indigenous 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>
<p>1.0 BID REJECTION CRITERIA (BRC):</p> <p>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.</p> <p>A) TECHNICAL:</p> <p><u>B. Technical</u></p> <p>1.0 Bidder's Eligibility:</p> <p>The bidder should either be an</p> <p>(i) OEM (Original Equipment Manufacturer) of the Engine/ Alternator/ Generator set</p> <p style="text-align: center;">Or</p> <p>(ii) Authorized dealer of OEM of Engine/ Alternator/ Generator set</p> <p>2.0 Bidder's Experience:</p> <p>(i) The bidder must have supplied through a single order at least 04 (four) no. of generator sets of capacity 50 KVA or higher to any Govt. /Semi Govt./ Public Limited Company in India during the last 05 (five) years as on original bid closing date of the tender.</p> <p>(ii) Documentary evidence in respect of manufacturing & supply should be submitted with the technical bid, in the form of copies of relevant signed Purchase Orders along with copies of any of the following documents in respect of satisfactory execution of the Purchase Order failing which the bid will be rejected.</p> <p>(a) Signed & sealed satisfactory supply/ completion/ installation report (in original on user's letter head) (OR)</p>

- (b) Bill of Lading (OR)
 - (c) Consignee delivery receipt/ challan (OR)
 - (d) Central Excise Gate Pass/ Tax Invoice issued under relevant rules of Central Excise/Vat./GST(OR)
 - (e) Commercial Invoice/ Payment Invoice.
- (iii) A copy of the Certificate of Incorporation (if the bidder is OEM) and a copy of valid authorized dealership certificate (if the bidder is Authorized dealer) must be submitted in the technical bid.

Notes to Clause No.2.0 above:

- a. The purchase order date need not be within 05(five) years preceding original bid closing date of this tender. However, the execution of supply should be within 05(five) years preceding original bid closing date of this tender.
- b. A supply order executed by a bidder for its own organisation / subsidiary cannot be considered as experience for the purpose of meeting BEC.

3.0 The engine shall be of four-stroke cycle, spark-ignited, radiator cooled, in-line naturally aspirated /turbocharged/turbocharged after-cooled gas engine with electronic Engine Control Unit integrating governing, monitoring and diagnosing features and functions, capable of operating without any external ventilation system at the given site conditions and should be suitable for generator drive meeting the latest norms of the Environment (protection) Act 1986 (Latest version of CPCB II) for emission and noise level.

The bidder must submit copy of the Type Approval & Conformity of Production Certificate for the engine/generating set in the technical bid.

4.0 The rated output of the engine at 1500RPM should be suitable for driving generator set of capacity 125kVA Prime Duty and Performance Class not less than G2 as per ISO 8528-5 with natural gas fuel and compression ratio not exceeding 12:1.

The bidder must submit the manufacturer's (OEM) product catalogue of the engine/generating set where the rated output should find mention in it in the technical bid.

5.0 Delivery Period:

The offered item must be delivered within 08 (eight) months from the date of receipt of formal order.

The bidder should categorically confirm the above, in the technical bid.

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. 186.50 Lakhs.**

b) Net Worth of the firm should be Positive for preceding financial / Accounting year **(FY: 2017-2018).**

Note -For (a) & (b):

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:

a) 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-J**.

OR

ii) Audited Balance Sheet along with Profit & Loss account.”

b) In case the bidder is a Central Govt. Organization/PSU/State Govt. Organization/Semi-State Govt. Organization or any other Central/State Govt. Undertaking, where the auditor is appointed only after the approval of Comptroller and Auditor General of India and the Central Government, their certificates may be accepted even though FRN is not available. However, bidder to provide documentary evidence for the same.

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. 7,46,000.00** in OIL's prescribed format as Bank Guarantee in favour of OIL. The Bid Security may be submitted manually in sealed envelope superscribed with Tender no. and Bid Closing date to GM-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 31.12.2019).**

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. 8.16 of General Terms and Conditions vide MM/LOCAL/E-01/2005 for E-Procurement of Indigenous 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 of Indigenous Tenders. Any offer not complying with the above shall be rejected straightway.

iv) Performance Security:

The successful bidder shall submit Performance Security @ 10% of PO value within 30 days of receipt of the formal purchase order failing which OIL reserves the right to cancel the order and forfeit the Bid Security.

The Performance Security shall be in the following forms :

A Bank Guarantee in the prescribed OIL's format valid for 3(three) months beyond the Warranty period indicated in the Purchase Order /contract agreement.

Bidders should undertake in their bids to submit Performance Security as stated above.

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 prices offered will have to be firm through delivery and not subject to variation on any account. A bid submitted with an adjustable price will be treated as non-responsive and rejected.

vi) Bids received after the bid closing date and time will be rejected. Similarly, modifications to bids received after the bid closing date & time will not be considered.

vii) All the Bids must be Digitally Signed using "Class 3" digital certificate with Organisation's name (*e-commerce application*) as per Indian IT Act obtained from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India. The bid signed using other than "Class 3 with Organisation's Name" digital certificate, will be rejected.

viii) **Technical RFX Response folder is meant for Technical bid only. Therefore, No price should be given in Technical RFX Response folder, otherwise the offer will be rejected.**

ix) Price should be maintained in the "online price schedule" only. The price submitted other than the "online price schedule" shall not be considered.

x) 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) Annual Turnover of a bidder lower than the Annual turnover mentioned in the Tender.

NOTE: FOR CLAUSE NOS. C(ii) & C(iv) OF BID SECURITY/EMD AND PBG.

The bidders/successful bidders are requested to advise the Bank Guarantee issuing bank to comply with the following and ensure to submit, the receipt of the copy of SFMS message as sent by the issuing bank branch, along with the original bank guarantee in Oil's tender issuing office:

The bank guarantee issued by the bank must be routed through SFMS platform as per following details:

(i) "MT 760 / MT 760 COV for issuance of bank guarantee.

(ii) "MT 760 / MT 767 COV for amendment of bank guarantee

The above message/intimation shall be sent through SFMS by the BG issuing bank branch to Axis Bank, Duliajan Branch, IFS Code - UTIB0001129, Branch Address - AXIS Bank Ltd, Duliajan Branch, Daily Bazar, Jyotinagar, Duliajan, District - Dibrugarh, PIN- 786602

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. The original Bid Closing Date shall be considered by OIL for evaluation of BRC criteria even in case of any extension of the original Bid Closing Date.

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, all Taxes / Levies will be considered as per prevailing Govt. guidelines as applicable on the bid opening date for entire tendered quantity. Bidders may check this with the appropriate authority before 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) A job executed by a bidder for its own organization / subsidiary cannot be considered as experience for the purpose of meeting BEC.

iv) 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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NATURAL GAS ENGINE DRIVEN GENERATING SET OF CAPACITY: 125 KVA (ACOUSTIC GAS GENSET)

Sl.No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
1.0	Scope of Supply	<p>1.1 The scope of work includes Supply, Installation and Commissioning of Natural Gas Engine driven Generator sets (GEGs) at OIL's Site with field testing and reliability run.</p> <p>1.2 The GEG sets of rating and output specified herein shall be all new and be housed inside weather-proof acoustic enclosure. Also, it shall be complete with all accessories including electrical control panel (inside the acoustic enclosure), safety devices and shall be mounted on oil-field skid for safe lifting and transportation.</p> <p>1.3 Rating and output of Generator Set: 125 kVA (100 kWe), 415 Volts 3 phase, 0.8 pf (lag), 50 Hertz, prime duty as per ISO8528 standard with 10% overload capacity.</p>	
2.0	General Requirements	<p>2.1 The generator set shall be sturdy, rugged, proven and extremely reliable and durable. The generator set shall be suitable for operation in oil and gas field installations with field gas from the oil and gas field, in solo island mode operation and outdoor deployment.</p> <p>2.2 Electrical loads shall be utilities, motors and UPS.</p> <p>2.3 The generator set shall be suitable for frequent moves from site to site.</p> <p>2.4 The components of the complete generator set shall be of such design so as to satisfactorily function under all conditions of operation.</p> <p>2.5 The entire work of manufacture/fabrication, assembly and installation shall conform to sound engineering practice. The entire installation shall be such as to cause minimum transmission of noise and vibration to the site.</p> <p>2.6 All equipment and materials to be used in work shall be manufactured in factories of good repute having excellent track record of quality manufacturing, performance and proper after sales service.</p> <p>2.7 Bidder shall provide all related components and auxiliaries of generating set as part of the package</p>	

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Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		2.8 Bidder shall furnish all relevant data of complete package as per Annexure-III (Data Sheet)	
3.0	Codes & Standards	3.1 All equipment in the offer shall conform to the following, but not limited to them, latest edition of relevant codes & standards. 3.2 ISO 3046/1 or equivalent Indian Standard: Specification for reciprocating internal combustion engines 3.3 ISO 8528 or equivalent Indian Standard: Rotating electrical machine 3.4 IS: 10000(Part-iv) (or) (ISO: 3046) (Latest edition): Declaration of power, efficiency, fuel (NG) and lube oil consumption for gas engine. 3.5 IS: 10002: Specification for performance requirement for constant Speed Engines (above 20 kW). 3.6 IS: 12065 Noise limit 3.7 IS: 13364 Specification of Alternator coupled with IC Engines 3.8 IS: 12075 Vibration 3.9 IS: 4691 Enclosure Protection 3.10 IS: 6362 Cooling 3.11 IS: 2253 Mounting 3.12 In case of bidder's inability to use the mentioned codes and standards, the bidder/manufacturer shall indicate his proposed codes and standards defining in detail for using the same. OIL may review the bidder's proposed codes and standards for approval of the same.	
4.0	Site Conditions	The ambient condition of the generator sets shall be: 4.1 Maximum Ambient Temperature : 40°C 4.2 Minimum Ambient Temperature : 05°C 4.3 Maximum Humidity at 21°C : 100 % 4.4 Maximum Humidity at 35°C : 95 % 4.5 Maximum Humidity at 41°C : 70 % 4.6 Maximum Altitude above sea level: 150 Meter	
5.0	Composition of fuel gas at sites	5.1 The composition of Onsite field gas or wellhead gas sourced from nearby oil field is furnished below. Presence of natural gas liquids in the raw gas along with crude and other troublesome impurities is very common. 5.2 The composition of the gas is broadly as under:	

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		<p>CONSTITUTION Range by % VOLUME</p> <p>a) Methane 85.7 - 93.52</p> <p>b) Ethane 2.45 - 6.55</p> <p>c) Propane 1.28 - 3.12</p> <p>d) Nitrogen 0.53 - 1.21</p> <p>e) Carbon-dioxide 0.01 - 0.57</p> <p>f) Iso-Butane 0.31 - 0.75</p> <p>g) N-Butane 0.4 - 1.14</p> <p>h) Iso-Pentane 0.19 - 0.47</p> <p>i) N-Pentane 0.17 - 0.38</p> <p>j) Hexane 0.34 - 1.16</p> <p>k) Gravity 0.6204 -0.6919</p> <p>l) Gross Calorific Value 9636.8- 10590.8 Kcal/SCUM</p> <p>m) Net Calorific Value 8704.3- 9595.4 Kcal/SCUM</p> <p>n) Moisture content:21.0-120.0LB/MMCFT(336.0-1992.0 KG/MMSCM)</p> <p>NOTE: Though the given methane content is in the range of 85.7 - 93.52% by volume, the bidders shall consider while selecting engine and its configuration, methane content of field gas to be as low as 80% by volume and highly aggressive. The engine shall work trouble free without knocking or pre- ignition and without having to de-rate on ground of gas quality. The field gas shall be fed through scrubber and at 20-30PSIG at upstream of gas train</p>	
6.0	Gas Engine and Generator Set Rating/Capacity:	<p>6.1 The generator set shall be rated for a prime power duty of capacity 125 KVA (100 kWe) at 0.8-PF (lag) with an output of 174 amperes (minimum) while generating 415 Volt AC, 3-phase, 50 Hz power (at 1500 RPM), and the rated output shall be available at the generator output terminals with the given gas composition as engine fuel.</p> <p>6.2 Generator set shall be ready to use type and suitable to operate on the given gas composition. It shall be configured to accept aggressive raw natural gas/field gas or well head gas.</p> <p>6.3 The engine shall be standard design of the original manufacturer designed primarily for generator set application in accordance with ISO 3046/BS5514/ ISO8528 standards and with high tolerance for variable quality of gaseous fuels (field gas).</p>	

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		<p>6.4 The engine shall be a four-stroke, spark-ignited, radiator cooled, naturally aspirated or turbocharged in-line engine with Electronic Engine Control Unit (ECU) controller capable of meeting the rated output and duty of the generator set with 1500 RPM as speed, compression ratio not exceeding 12:1 and power of the engine shall be suitable to meet the rated output of the genset. It shall also be capable to operate without any external ventilation system and shall be configured to accept aggressive raw natural gas/field gas or well head gas.</p> <p>6.5 The engine should have user friendly engine control display with metering, monitoring, diagnosing and protecting features all integrated with the controller of the engine.</p> <p>Note: The following documents, but not limited to the following, shall be submitted along with the technical bid in support of the specified rating and output:</p> <ul style="list-style-type: none"> (i) The technical data including engine rating/ output (w.r.t. compression ratio and rpm) and block load capability, provided pertaining to the engine with the offer shall be certified by the engine manufacturer. (ii) Necessary certificate indicating the compliance of the capacity requirements given in clauses - 6.1 thro 6.5 for the engine model so selected shall be furnished from the engine manufacturer. (iii) Engine BHP with natural gas calorific value 970BTU/CFT as engine fuel and at 1500 RPM and Compression Ratio ratio not exceeding 12.1. (iv) Calculation sheet for determining the size of the engine with respect to the genset rating. (v) Engine and alternator shall bear Name Plate revealing in it details of ratings published by the OEM of the engine and alternator. (vi) Standard Engine Shop Manual from OEM: The bidder shall submit, in their technical bids, <u>undertaking</u> for supply of Standard Engine Shop Manual in the event of order placed upon it. 	
7.0	Alternator and Control Panel and	(Refer Section A for Specification of Electrical Items) Note:	

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	other electrical items:	<p>(i) The specification for electrical items in Section A shall have over-riding value and shall be followed for that particular item/work, wherever they differ from specifications given in other annexure.</p> <p>(ii) Engine & Alternator shall be supplied with independent lifting hooks / eye bolts for safe Handling</p>	
8.0	Gas Engine features, components and accessories:	<p>The specifications given hereunder are general in nature and shall be subject to the standard practice of the engine manufacturer. However, the ignition and governor with the engine shall be as per the given specification provided under in the respective subsection here under. Bidder / manufacturer shall be responsible for providing gas engine driven generating set as per standard practice with the specified technical requirements suitable for Prime Rated Power (PRP) Operation.</p> <p>8.1 STARTING SYSTEM - Electrical start complete with batteries (lead acid type). The engine starting system shall include 24 volt DC starting motor(s), starter relay, and automatic reset circuit breaker to protect against butt engagement. Batteries shall be maintenance free, lead acid type mounted near the starting motor. Corrosion resistant or coated steel battery rack shall be provided. Required cables shall be furnished and sized to satisfy circuit requirements.</p> <p>8.2 CHARGING SYSTEM – Suitable independent standard battery charging system as per OEM design for charging of batteries as used in above starting of the engine shall be provided.</p> <p>8.3 AIR INTAKE SYSTEM - shall include dry type paper filters element, silencer and vacuum indicator for servicing air cleaner as per manufacturer standard. Maximum air intake restrictions with clean and choked filters shall be within prescribed limit of the OEM/ manufacturer recommendation for the particular model of the engine. Air cleaners shall be either medium or heavy as per manufacturer standard for gen set application.</p> <p>8.4 LUBRICATION SYSTEM - forced feed pressure lubrication system with lubrication oil filters with replaceable elements as per manufacturer standard. Necessary gear driven oil pump for lubricating oil, oil coolers, priming of engine bearing as per manufacturer recommendations. The sump shall have adequate capacity to continue operation up to 1000 Hrs. without Lub Oil Change.</p> <p>8.5 FUEL SYSTEM - fuel system shall comprise isolation valve, gas filter, gas pressure</p>	

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		<p>reducer, solenoid valves etc. Gas shall be available at around 20-30 psig pressure at gas train inlet. Gas engine shall be suitable to operate at this pressure.</p> <p>8.6 IGNITION SYSTEM- The ignition system shall be a high energy digital, capacitor-discharge system (preferably Altronic CD200) designed for use on small, 1 to 8 cylinder industrial gas engines having the following features:</p> <ul style="list-style-type: none"> • Universal, low-cost, microprocessor-based programmable configuration to select the feature set appropriate to the application: <ul style="list-style-type: none"> ○ Timing curves vs. RPM or analog signal, ○ Selectable spark energy, ○ Individual cylinder timing adjustment, ○ Adjustable overspeed trip, • Comprehensive diagnostics for troubleshooting • Windows™-based terminal program for configuration and monitoring, • Modbus RTU communications and monitoring <p>8.7 GOVERNOR - The governor shall be compatible with the ignition system specified in clause no. 8.6 above and capable of isochronous frequency regulation from no load to full rated load. It shall control engine speed and transient load response to meet ISO 8528 G2/G3 performances and tolerances. It shall be selected, installed, and tested by the engine manufacturer.</p> <p>Note: The engine speed shall be so maintained that frequency variation at constant load including no load shall remain within a band of 1% of rated frequency.</p> <p>8.8 ENGINE EXHAUST SYSTEM-</p> <p>a) Exhaust system with smooth bends to create minimum back pressure, with suitable residential grade silencer (at optimum location) to reduce the noise level upto 75 dB and inbuilt Spark Arrestor. The silencer shall have an end inlet and end outlet with its horizontal tail end with 45 degree downward cut to avoid rain water entry or with rain cap vertical end. The exhaust flexible shall have it's free length when it is installed. The exhaust shall be terminated above the building / enclosure. The termination height shall be calculated with following formula:</p>	

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		<p>H = $h + 0.2 \times \text{square root-over of kVA}$, where, H = Height of termination(in Meter), h = height of Building / Enclosure(in Meter)</p> <p>b) Exhaust piping shall be of MS pipe (Schedule B) conforming to relevant IS. The runs forming part of the factory assembly on the engine flexible connections upto the exhaust silencer shall be exclusive of exhaust piping item. 50mm thick loosely bound resin(LBR) mattress/mineral wool/Rockwool, density not less than 120kg/sq. meter and 0.6mm thick aluminium shall be used for cladding work. Load or stress shall be prevented on the turbocharger.</p> <p>8.9 NOISE and EMISSION COMPLIANCE: Compliance of noise and emission norms as per latest CPCB II guidelines for gas generator set shall be furnished from the manufacturers along with the technical bid.</p> <p>8.10 COOLING SYSTEM - System shall be designed for ambient temperature of 40 Deg C. It shall have closed coupled radiator subject to the engine manufacturer's standard design.</p> <p>8.11 ACCESSORIES: The engine shall be fitted with the following accessories subject to the design of the manufacturer:</p> <ul style="list-style-type: none"> a) Engine over speed protection. b) Vibration dampers. c) Non sparking guard for coupling d) Dynamically balanced Flywheel e) Necessary flexible coupling and guard for alternator and engine f) Rain Cap for vertical Exhaust Emission <p>8.12 INSTRUMENTATION & CONTROLS: Engine shall be provided with the following instruments and controls for the efficient operation and safety. It shall simple and easy to operate and maintain. All controls shall operate in fail- safe mode.</p> <ul style="list-style-type: none"> a) Start/ Stop Switch b) Battery Charging Indication c) Lube oil pressure indication, alarm and shut down 	

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		d) Low lub oil trip indication e) Water temperature indication f) High water temperature indication, alarm and shut down g) RPM indication h) Over-speed indication, alarm and shut down i) Engine hours indication j) Engine Fail System: Engine Stop function shall be possible by two independent devices: (a) Automatic cutting off the gas fuel supply and (b) by grounding the ignition current. Both the system shall be functional when the engine is running.	
9.0	Acoustic Enclosure	(Refer Section B for specification of Acoustic enclosure, Enclosure Illumination and Enclosure Earthing Arrangement.)	
10.0	On Line Gas Monitoring System	Continuous On Line Gas Monitoring System, as specified here under, shall be installed inside the Acoustic Enclosure. 10.1 Detector / Gas Sensor: Actual Nos of Sensors to be decided based on locations where there are possibilities of gas leakage inside the acoustic enclosure. Minimum 02 nos. of sensors shall be provided 10.2 Type : IR (Infrared), suitable for detection of NATURAL GAS (By Volume CH ₄ : 89.538 %, N ₂ : 1.004 %, CO ₂ : 0.543 %, C ₂ H ₆ : 4.132 %, C ₃ H ₈ : 2.491 %, Others : 2.292 %) 10.3 Range: 0 to 100 % LEL 10.4 Operating Temperature: 0 to 50 Deg C 10.5 Display: 4 digits LCD Display 10.6 Alarm Setting: Variable 10.7 Shut down setting: Variable 10.8 Control system: Suitable control system to be provided for alarm and safety shut down of the engine 10.9 Sensor calibration: Adjustment of Zero & Span on-site Non-Intrusive one man calibration shall have facility to calibrate the instrument on spot without disconnecting from power supply by using any portable hand held intrinsically safe calibrator. 10.10 Detectors must be suitable for hazardous environment i.e., Zone 1 & Zone 2 hazardous area Gas Group IIA & IIB. 10.11 Copy of Test Certificates from any NABL accredited test laboratories for the quoted	

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Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		Detector / Sensors, tested and approved as per relevant Indian/International Standard must be submitted along with the supply, as per OMR 2017	
11.0	SKID	<p>Engine and Alternator shall be directly coupled or coupled by means of flexoplate/flexible coupling as per manufacturer standard design and both units shall be mounted on a suitable designed common bed plate together with all auxiliaries to ensure perfect alignment of engine and alternator with minimum vibrations. The bed plate shall be suitable for installation on suitable anti-vibration mounting system.</p> <p>The bidders are advised to note that the generator set has to move frequently from location to location thereby prone to abuse of transportation. The skid/base shall be designed to help protect against damage and misalignment that could result while the unit is being moved. It shall be such that it shall help to isolate the generator set from impact loads that occur during movement and from distortions of the skid/base resulting from rough handling, protecting the generator driveline and its alignment.</p>	
12.0	Painting & Packing	<p>12.1 Painting shall be done as per standard practice of manufacturer.</p> <p>12.2 The packing shall be roadworthy for transportation up to site, sufficiently robust to withstand rough handling.</p> <p>12.3 Boxes/packing cases containing electrical equipment shall be water proof lined.</p> <p>12.4 All the matters on the control panel shall be packed separately for mounting at site or mounted in such a manner to prevent transit damage</p> <p>12.5 All manuals, books, digital items (discs) shall be separately packed and contained in rigid plastic pouches.</p> <p>12.6 All manuals, drawings, documents and digital items of engine shall be packed in one separate container and the container shall be separately handed over to OIL at delivery of the Gen sets.</p>	
13.0	Equipment Data Sheet and Name Plate	<p>13.1 EQUIPMENT DATA SHEET (Refer Annexure-III for details of data sought)</p> <p>13.2 NAME PLATE The following data shall be engraved on the name plate:</p> <p>13.2.1 Gas Engine: Manufacture's Name, Model, Sl. No. & Year of Manufacture, Rated BHP, Rated RPM, Weight In Kg., OIL's Purchase Order No.</p>	

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Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		13.2.2 Alternator: Manufacturer's Name, Sl. No: Type & Frame Ref, Rated Output in kVA & kW, Type of Duty, Rated Power Factor, Frequency, Rated Voltage, No: of Phases & Type of Connection, Rated Speed (RPM), Class of Insulation, Excitation Current & Voltage at Rated Out Put, Year of Manufacture &, Weight in Kg., OIL's Purchase Order No.	
14.0	Parts for two year operation and maintenance:	14.1 The following spare parts required for two year operation and maintenance of the engine shall be supplied along with the Order. <u>Gas Engine:</u> (i) Spark Plug: 2 Set Per Engine (ii) Ignition Transformer: 2 Set Per Engine (iii) Lub Oil Filter Element: 6 Nos Per Engine (iv) Air Filter Element: 6 Nos Per Engine (v) Gas filter element (of gas train): 04 nos. per engine (vi) Set Of Vee Belts: 2 Sets Per Engine 14.2 The bidder has to note that the above mentioned spares are mandatory maintenance spares and are to be supplied along with the order.	
15.0	Submittals	15.1 Documents for submission along with the technical bid - The following document shall be submitted along with the technical bid: (i) GA drawing of Generator Set and Control Panel. (ii) Engine data Sheet (iii) Sizing of the engine generator set. Furnish calculation of Engine BHP for matching with alternator capacity. Calculation shall be approved by the Gen Set manufacturer. (iv) Acoustic Enclosure Dimensions indicating height etc. (v) Exhaust piping arrangement including height of exhaust. (vi) Transient response of frequency and voltage for the generator set. (vii) Auxiliary Equipment - Specification or data sheets, including switchgear, spring type vibration isolators. (viii) Drawings- General dimensions drawings showing overall generator set measurements,	

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		<p>mounting location, and interconnect points for load leads, fuel, exhaust, cooling and drain lines.</p> <p>(ix) Wiring Diagrams – Electrical Wiring diagrams, schematics of Generator & control panel</p> <p>(x) Warranty Statements.</p> <p>(xi) Standard Engine Shop Manual from OEM: The bidder shall submit, in their technical bid, undertaking for supply of the Standard Engine Shop Manual from OEM in the event of order placed upon it.</p> <p>15.2 Drawings for approval on award of the order: The following drawings shall be submitted to OIL within one month of placement of the purchase order (Minimum 2 sets of hard copies). The supplier shall get them approved from OIL before start of the manufacturing works. The approval of drawings however does not absolve the contractor not to supply the equipment/materials as per agreement, if there is any contradiction between the approved drawings and agreement.</p> <p>(i) Layout drawings of the equipment to be installed including control cables, fuel/luboil pipes and supports/structure for exhaust piping, chimney and bus ducts/cable trays.</p> <p>(ii) Drawings including section, showing the details of erection of equipment.</p> <p>(iii) Electrical wiring diagrams from engine-alternator set to electrical control panel, including the sizes and capacities of the various electrical/control cables and equipment.</p> <p>(iv) Dimensioned drawings of Acoustic enclosure/Engine-alternator set and electrical control panel.</p> <p>(v) Drawings showing details of supports for pipes, chimney cable trays, ducts etc.</p> <p>(vi) Any other drawings relevant to the work.</p> <p>15.3 Documents for submission before the pre-dispatch inspection:</p> <p>Two copies of the Integrated Operation & Maintenance Manual for the complete Generator Set including operating instructions with description and illustration of all switch gear</p>	

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Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		<p>controls & indicators, all generator controls and all engine controls</p> <p>15.4 As built Drawings / Documents to be furnished on completion of installation & commissioning: (Quantity of Drawings and Documents to be submitted: 5 set + 1 set X Number of Generating Sets to be supplied):</p> <ol style="list-style-type: none"> a) Generator set installation drawings giving complete details of all the equipment, including their foundations. b) Line diagram and layout of all electrical control panels giving switchgear ratings and their disposition, cable feeder sizes and their layout. c) Control wiring drawings with all control components and sequence of operations to explain the operation of control circuits. d) Manufacturer's technical catalogues of all equipment and accessories e) Integrated Operation & Maintenance Manual for the complete Generator Set including operating instructions with description and illustration of all switch gear controls & indicators, all generator controls and all engine controls. f) Engine Shop Manual (Engine Rebuilding Manual): Only 2(two) Copies for the entire order quantity. g) Parts Books - that illustrates and list all assemblies, subassemblies and components, except standard fastening hardware (nuts, bolts, washers, etc.). h) Routine Test Procedures - for all electronic and electrical circuits and for the main AC generator. i) Troubleshooting Chart - covering the complete generator set showing description of trouble, probable cause and suggested remedy. j) Wiring Diagrams and Schematics - showing function of all electrical components. k) Alternator Operation, Maintenance & Spare Part Manual. l) Generator Set Test Certificate. m) Certificate that the item has been designed, manufactured and tested conforming to the requirements & specifications n) OEMs test certificates for individuals sub-assemblies(if any). 	

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Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		o) Warranty Certificate p) Complete step-by –step Safe Operating Procedure (SOP) for the complete generating set	
16.0	Stage Inspection and Testing	(For inspection and testing of electrical items refer Section A) OIL as purchaser shall have right to carry out stage inspection and shop visit to inspect the manufacturing progress but such inspection shall not relieve the bidder of his responsibility to ensure that the equipment supplied is free from all manufacturing and other defects and conform to correct specifications.	
17.0	Pre-dispatch Inspection	(i) Pre-delivery inspection shall be performed by OIL to insure all generating set components, controls, and switchgear are included as specified herein, free from any defects and carry full load tests on every generating sets prior to delivery and acceptance. The manufacturer or its representative shall give a notice in advance of minimum four weeks for carrying out pre-delivery inspection and shall arrange staff/fuel/POL and any other consumables for test run at his cost. OIL shall witness such inspection & testing at mutually agreed date. (ii) All major items/ equipment i.e. engine, alternator and associated electrical control panels etc. shall be offered for inspection and testing assembled as unit. (iii) Gen Sets shall be tested on load banks for the rated KW rating. Testing shall be for a minimum of 1 hour at 80% load, 1 hr. at 100% load, 1 hr. at 110% load. (iv) During testing all controls/ operations safeties shall be checked and proper record shall be maintained by the manufacturer's representative. Any defect/ abnormality noticed during testing shall be rectified. The testing shall be declared successful only when no abnormality/ failure are noticed during the testing. (v) Any defects which become evident during the test shall be corrected by the bidder at his own expense prior to shipment to the jobsite. (vi) The Gen set shall be cleared for dispatch to site only when the testing is declared successful by OIL. (vii) A copy of the test results shall be submitted to the OIL at the end of the inspection. Test results shall show manufacturer's tolerances as well as actual parameters recorded.	
18.0	Dispatch/ shipment to site:	The items shall be dispatched only after OIL's satisfactory inspection and advice for dispatch.	

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Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
19.0	Installation and Commissioning at Site	<p>(i) For installation and commissioning of electrical items refer to Section A.</p> <p>(ii) The foundation works required for the installation of the generating sets will be done by OIL. Gas fuel and water supply point will be made available nearest to the generating sets from which points onward the supplier shall extend the lines as per requirement.</p> <p>(iii) Installation and Commissioning of the generating set complete with control panel and Changeover Panel shall be carried out by the supplier at any site located in OIL's Operational Area in Assam and Arunachal Pradesh and such installation and commissioning works under the scope of the supplier should be completed within 30 days from the site clearance from OIL's side.</p> <p>(iv) The installation shall be performed in strict accordance with shop drawings, specifications, and the manufacturer's instructions and as per tender specifications.</p> <p>(v) All materials required for installation and commissioning shall be in the scope of the supplier. This includes piping required for extension of engine exhaust.</p> <p>(vi) The supplier shall provide all tools and equipment, all safety gadgets for safe work, labor, appliances, apparatus etc at his cost required to carry-out the installation and commissioning work. However, OIL may on request, provide arc welding and oxyacetylene cutting set with necessary hot/cold work permits for the above jobs.</p> <p>(vii) The supplier shall be responsible for safety of its personnel and equipment during the installation and commissioning work.</p> <p>(viii) During the installation & commissioning job, the bidder shall strictly ensure that all the cut ends of cables, packing materials, leftover items are removed from site after completion of work. No environmental damage shall be done while carrying out the job.</p> <p>(ix) All equipment manufacturers/representative shall furnish the services of factory-trained personnel as required during installation and through the warranty period to inspect the installation, supervise startup of equipment installed, and repair the equipment when required. Service requests shall be answered and acted upon promptly.</p>	

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Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		<p>(x) The responsibility for performance to the specifications shall not be divided among individual component manufacturers, but must be assumed solely by the bidder (supplier). This includes generating system design, manufacture, test, and having a local supplier responsible for service, parts and warranty for the total system.</p> <p>(xi) Bidders should confirm that installation & commissioning is included in the Technical Bid.</p> <p>(xii) Installation & commissioning charges should be quoted separately which shall be considered for evaluation of the offers. These charges should include amongst others to and from fares, boarding/ lodging, local transport at Duliajan and other expenses of the service personnel during their stay at Duliajan, Assam (India).</p>	
20.0	Trial Run and Handing Over to OIL.	<p>(i) The generating sets shall be put under trial run for a period of 72 hours following their installation and commissioning. During this period, the generating set should run trouble free from any major/minor troubles and meet the performance standards. A representative of the supplier should be based in Duliajan with no cost to OIL during the trial run period to monitor the performance of the generating sets.</p> <p>(ii) The generator set will be said to have successfully completed the trial run, if no breakdown or abnormal /premature failure of any component of the entire generator set occurs during this period.</p> <p>(iii) Following the successful run-in period, the genset shall be taken over by OIL subject to guarantee/warrantee clause of the tender. This date of taking over of the generator set shall be the date of acceptance /taking over.</p>	
21.0	Service and Warranty	<p>i) The supplier shall ensure adequate and prompt after sales service free of cost during warrantee / guarantee period. In case of accessory/component supplied by other manufacturers the supplier shall furnish a guarantee/warrantee from the manufacturer for the same before the generator set is taken over.</p> <p>ii) The nature of after sales service, which can be provided by the bidder, during initial</p>	

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Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		<p>erection and commissioning as also subsequent operation shall be clearly stated in the quotation.</p> <p>iii) The manufacturer shall have a local authorized dealer who can provide factory trained servicemen, the required stock of replacement parts, technical assistance, and warranty administration.</p> <p>iv) The manufacturer's authorized dealer shall have sufficient parts inventory to maintain over the counter availability of at least 90% of any normal wear and tear parts. (Belts, hoses, filters, turbines, pumps, safeties, regulators, injectors, gaskets)</p> <p>v) The manufacturer's authorized dealer shall have factory trained service representatives and tooling necessary to install and commission all provided equipment.</p> <p>vi) The warranty period for the Gen set and ancillary equipment shall be a minimum of 18 months from the date of dispatch/ shipment or 12 months from the date of commissioning of the equipment whichever is earlier.</p> <p>vii) The warranty coverage shall include repair parts, labor, reasonable travel expense necessary for repairs at the jobsite, and expendables (lubricating oil, filters, antifreeze, and other service items made unusable by the defect) used during the course of repair or any defects in the engine or alternator during warranty period shall be replaced by the party at his cost without any extra charge to OIL</p> <p>viii) Running hours shall not be a limiting factor for the warranty coverage by either the manufacturer or the authorized dealer.</p> <p>ix) Offer received without written warranties as specified shall be rejected in their entirety.</p>	
22.0	Orientation	The system manufacturer's authorized dealer shall provide a complete orientation for OIL's engineering and maintenance personnel. Orientation shall include both classroom and hands-on instruction. Topics covered shall include control operation, schematics, wiring and diagrams, meters, indicators, warning lights, shutdown system and routine maintenance.	
23.0	General Notes to Technical Specification	a) All sundry equipment, fittings, assemblies, accessories, hardware items, foundation bolts, supports, termination lugs for electrical connections, cable glands, junction boxes and all other sundry items for proper assembly and installation of the various equipment and components of the generator sets are deemed to have included in the tender, irrespective of the fact that whether such items are specifically mentioned in the tender documents or	

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Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		<p>not.</p> <p>b) The offer shall not be acceptable if the bidder do not quote for all items of the tender, supply, installation, commissioning of all items</p> <p>c) In their offer the bidder must mention their detailed comments point-wise against each point of tender specifications. Any deviation from the tender specification shall be specifically mentioned. Specific type and make of equipment shall be mentioned. All the information required as per tender specifications must be submitted.</p> <p>d) The bidders shall provide overall dimensions of the Gen set, Acoustic Enclosure and foundation/installation diagram of the Gen set.</p> <p>e) In the event of order, the supplier shall submit to OIL within one month of placement of order all documents and drawings as required against each item.</p> <p>f) The manufacture of the equipment is to be started only after written approval of the drawings / documents by OIL as mentioned in tender against all equipment.</p> <p>g) Bidder must confirm in the Technical Bid that the major equipment such as Gas Engine and Alternator shall have manufacturer's Test Report and Warranty Certificate and the same shall be provided during inspection of the Generator set by OIL.</p>	
24.0	General Notes for Bidders	<p>(Bidders shall confirm each & every point clearly. <u>Deviations, if any</u>, shall be highlighted in the quotation.)</p> <p>i) Materials shall be brand new, unused & of prime quality.</p> <p>ii) Pre-dispatch/ Shipment Inspection & testing charges, if any, must be quoted separately on lump sum basis which shall be considered for evaluation of the offers. To and fro fares, boarding/ lodging and other en-route expenses of OIL's Inspection team for carrying our inspection shall be borne by OIL.</p>	
	<u>SECTION A</u>	<u>SPECIFICATION OF ELECTRICAL ITEMS</u>	

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Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
	1.0 SPECIFICATI ON OF ALTERNATOR	<p>(1) Make of the Alternator shall be within the following: KIRLOSKAR / NGEF / STAMFORD / CROMPTON GREAVES / CATERPILLAR / KATO / GENERAL ELECTRIC, USA</p> <p>(2) Rated Output : 125 KVA, 0.8 power factor at Specified ambient conditions for utility and motor loads</p> <p>(3) Rated Voltage : 415 Volts \pm 5%</p> <p>(4) Armature Winding : 3 Phase, 4 wire type</p> <p>(5) Rated Frequency : 50 Hz \pm 3%</p> <p>(6) Power factor : 0.8 lagging</p> <p>(7) Class of insulation : Class F/H but temp rise limited to class B</p> <p>(8) RPM : As per engine rated speed</p> <p>(9) Phase sequence: UVW - phase sequence and direction of rotation shall be clearly marked on the alternator.</p> <p>(10) Duty/load: Continuous duty rated Alternator.</p> <p>(11) Winding Connection: Y connected. Separate neutral terminal required</p> <p>(12) Ambient : Min: 5 °C Max: 40 °C, RH 95% max</p> <p>(13) Alternators Enclosure Protection : IP 23</p> <p>(14) Alternators Terminal Box Protection : IP 54</p> <p>(15) Excitation system: Brush less, self-excited, self-regulated with solid state AVR. Voltage characteristics- VG3 as per Table-1, IS-13364 (Part-2)</p> <p>(16) Mounting: Foot mounted on Gen set skid that should be mounted on anti-vibration pad.</p> <p>(17) Permissible voltage variation: As per Table-1, IS-13364 (Part-2)</p> <p>(18) Permissible frequency variation: As per IS-13364(P-2)</p> <p>(19) Frame size: Bidder to confirm</p> <p>(20) Waveform deviation: As per IS-13364 (Part-2)</p> <p>(21) Unbalanced current: As per IS-13364 (Part-2)</p> <p>(22) Short circuit current: As per IS-13364 (Part-2)</p>	

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Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		<p>(23) Cooling : Air cooled by integral fan</p> <p>(24) The brush less alternator shall have exciter and rotating rectifier-bridge mounted on shaft complete with diodes and surge suppressor, main field windings and stator windings. PIV of exciter diodes must be 800 Volts or 8 times the maximum exciter armature operating voltage, whichever is higher. At nominal speed the excitation system must produce sufficient residual voltage in order to ensure self-excitation.</p> <p>(25) All windings shall be made from electrolytic grade copper of high purity.</p> <p>(26) Voltage swing (Transient response): As per IS-13364 (Part-2).</p> <p>(27) The alternator shall be capable of sustaining a 10 % over load for one hour in any 12 hours operation.</p> <p>(28) Total voltage harmonic distortion shall be less than 3 % between phases at no load.</p> <p>(29) The alternator shall be capable of withstanding 1.2 times the rated speed for two minutes without any damage.</p> <p>(30) Alternator stator winding terminals are to be connected to 4 nos. of suitably rated tinned copper terminals, supported on SMC/GRP supports inside the alternator terminal box.</p> <p>(31) The alternator terminal box shall be of suitable size and shall be suitable for terminating power cables of alternator.</p> <p>(32) 2 nos. of earth points are to be provided on both sides of the alternator.</p> <p>(33) Lifting hooks are to be provided for lifting the alternator.</p> <p>(34) AVR shall be suitable for motor loads, VG3 regulation.</p> <p>(35) Alternator windings and AVR shall be suitable for humid atmosphere as per ambient conditions mentioned in the enquiry.</p> <p>(36) Bidder to mention the following information in offer</p> <ul style="list-style-type: none"> (i) Unbalanced current carrying capacity (ii) Efficiency of the alternator at 25 %, 50 %, 75 % and 100 % load. (iii) Power factor of the alternator at 25 %, 50 %, 75 % and 100 % load. (iv) Dimensional drawings. <p>(37) Alternator frame and enclosure shall be made from MS or Cast steel.</p>	

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Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		<p>(38) The permissible vibration of the alternator shall be as per IS-12075.</p> <p>(39) The alternator shall conform to the following standards: Latest publications of all IS Standards shall be referred.</p> <p>IS: 12065 Noise limit</p> <p>IS: 12075 Vibration</p> <p>IS: 4691 Enclosure Protection</p> <p>IS: 6362 Cooling</p> <p>IS: 2253 Mounting</p> <p>IS: 13364 Specification of Alternator coupled with IC Engines</p>	
	<p>2.0</p> <p>SPECIFICATI ON OF GENERATOR CONTROL PANEL:</p>	<p>2.1 A separate electrical control panel shall be incorporated & installed inside the genset house (acoustic enclosure) with generator circuit breaker, change-over switch, switches/relays, metering, control and protection devices. The detailed description of the panel is as follows:</p> <p>a) Design of Genset Control Panel shall be compatible for running the generator in both the following conditions. Exact use at site would be at OIL's discretion.</p> <p>i) Generator Neutral solidly grounded without Neutral Grounding Resistor (NGR).</p> <p>ii) Generator Neutral grounded through NGR to restrict neutral current to maximum 750 mA (to comply with CEA Regulation 2010 clause # 100). However, supply of NGR is not in the scope of the vendor.</p> <p>b) Sheet steel clad, self-supporting, floor mounting, cubicle type, dust and vermin proof generating set control panel made of 2mm thick MS CRCA sheet and built upon rigid framework of channels, beams as required, having front and rear hinged doors with danger plate fitted on both sides, lifting lugs on top, ventilation louvers on both sides, bottom detachable gland plates, double earthing studs on two sides, complete with suitably sized zinc passivated hard wares with heavy plain and spring washers.</p> <p>c) The panel doors shall have neoprene rubber gasket.</p> <p>d) The panel shall be designed and manufactured as per IS-8623.</p>	

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		<p>e) The panel enclosure shall be as per IP54 except for the open part of cooling louvers at bottom and top of the panel sides. Suitable wire mesh shall be provided on the inner side of the louvers to prevent entry of insects.</p> <p>f) The metal surface of the panel shall be given seven tanks anti corrosion treatment and then powder coated in DA grey colour (Min. 50 micron thick paint).</p> <p>g) The frame shall be able to withstand the stress and vibration during transportation and operation.</p> <p>h) All cable entry shall be from bottom side. Removable gland plates shall be provided for all cables. Height of electrical panel from skid/ floor shall be sufficient for entry of the electrical cable with proper bending radius.</p> <p>i) Genset shall be supplied in ready to use condition, complete with all interconnections like connection between generator terminal to generator breaker etc.</p> <p>2.2 The detail description of the components of the electrical control panel is as described below:</p> <p style="padding-left: 40px;">The panel shall broadly have the following compartments/sections:</p> <p style="padding-left: 80px;">i) Incomer & Bus bar Section</p> <p style="padding-left: 80px;">ii) Generator Protection Section</p> <p style="padding-left: 80px;">iii) Generator control section</p> <p style="padding-left: 80px;">iv) Engine control section</p> <p style="padding-left: 80px;">v) Change-Over Switch</p> <p>2.2.1 <u>INCOMER/BUS BAR SECTION- MAIN COMPONENTS:</u></p> <p>a) Breaker / MCCB: 1 No. 415 V, 400 Amps, 4 pole, MCCB, 25 KA breaking capacity, with inbuilt microprocessor based, adjustable overload & short circuit, earth fault and earth leakage protection, Under voltage trip coil. Earth fault protection can be in-built or separate through separate CBCT and earth leakage sensing relay. Rotary operating handle shall be provided on the panel door for manual operation of</p>	

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		<p>MCCB. MCCB shall have suitable indication in case of trip from trip unit of MCCB. MCCB Make: Legrand/ Siemens/Schneider Electric/ABB.</p> <p>The MCCB shall trip on the following faults:</p> <ul style="list-style-type: none"> (i) Over load, short circuit and earth fault/earth leakage- Tripping from internal trip unit of MCCB (ii) Over/under voltage & Over/under Frequency- From voltage and frequency relays (iii) Engine fault (Low lube oil, high water temp, over speed)- Trip contact from engine protection system <p>b) Busbars: Panel shall have one set of TP & N electrolytic grade, high conductivity, electro tinned copper bus-bars, made from rectangular sections confirming to IS, rated for 600 Amps (Free air rating of sections) and supported at required intervals to withstand short circuit fault levels up to 36 KA for 1 Sec. Rating of neutral bus shall be minimum 50% of phase bus rating. Bus-bar support shall be non- hygroscopic GRP/FRP and the Bus-bar shall be insulated with heat shrinkable PVC sleeves.</p> <p>c) Incoming and outgoing power cables to/from MCCB shall terminate on electrolytic grade, high conductivity electro tinned copper spreader bar/links liberally sized for termination of all power cables. Neutral bar shall also have provision for connection of neutral earth cables. All cables to the panel shall enter through a detachable gland plate (of 3 mm thickness) at the bottom of the panel. All cables shall be terminated through suitably sized single compression glands and connections shall be made through properly rated terminal strips and tinned copper sweating sockets crimped rigidly to the copper conductors.</p> <p>2.2.2 <u>GENERATOR PROTECTION SECTION: THIS SECTION SHALL HAVE:</u></p> <ul style="list-style-type: none"> a) Built-in long time overload, short time fault, instantaneous short circuit, earth fault protections- in the MCCB. Earth leakage protection from earth leakage module on 	

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		<p>MCCB or Earth leakage relay with CBCT. ELR shall be adjustable (sensitivity: 0-3 A, time: 0-5 Sec)</p> <p>CBCT make: Schneider/Legrand</p> <p>b) 1 No 3 phase, 4 wire, Microprocessor based, Over and Under Voltage Monitoring Relay for the following protections:</p> <ol style="list-style-type: none"> i) Over voltage - 110 % ii) Under voltage - 85 % with 1- 10 seconds time setting <p>Make: Telemecanique (Model RM3 TR114VS7 or higher version models) / ProkDvs (Model-LVM11-34-2CF or higher version models)/equivalent model of ABB Ltd/ Schneider / Siemens</p> <p>c) 1No. Over and Under frequency monitoring relay from 40 to 60 HZ with accuracy 0.1%, suitable for 415V Trip time 0-10Sec with LED indication, 2NO+ 2NC contact.</p> <p>Make: ProkDvs (Model -HILO-2C-F or higher version models) / Minilec (FCS D2 or higher version models) / equivalent model of ABB Ltd/ Schneider / Siemens</p> <p>d) Suitably rated CTs of 300/5 , class 5P10 for above (Make: Kappa / Conzerv/ L&T)</p> <p>2.2.3 GENERATOR CONTROL SECTION:</p> <p>This section shall have:</p> <p>a) Meters:</p> <ul style="list-style-type: none"> • 1 No. Three phase analog Voltmeter with selector switch, Size- 96 X 96 mm², Class of accuracy 0.5, 0 - 500 V, Auxiliary power supply -230 V AC (Make: AEI/ Conzerv / L&T) • 1 No. Three phase analog ammeter with selector switch, Size- 96 X 96 mm², 0-500 Amps, C.T. operated, Auxiliary power supply 230 V AC, class of accuracy -0.5 (Make: AEI/ Conzerv / L&T) • 1 No. Digital frequency meter, scaled 0-100 Hz, suitable for 240 V AC operation, (Make: AEI / Conzerv / L&T) 	

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		<ul style="list-style-type: none"> • 01 no.- Digital multifunction meter indicating Voltage (V), Current(A), Frequency(Hz), Power factor(pf), Active Power(KW), Reactive Power(KVAR), Energy(KWH), Maximum Demand (MD) with RS-485 capability; make- Siemens (Sentron PAC 3200 or higher version models) / Schneider Group (Model- PM700 higher version models) or equivalent model of ABB, Automatic Electric. • Suitably rated CTs, CT ratio 200/5, class I for ammeter, kW meter and PF meter (Make: Kappa / Conzerv / L&T.) • All meters shall be mounted at the front door of the panel. <p>b) Indications: Following are to be provided:</p> <ul style="list-style-type: none"> • “Engine running” • Power supply “ON” for R, Y & B phases • “Trip circuit healthy” • “Tripped on Fault” (Electrical fault - From aux contact of trip unit of MCCB) • Over/under voltage • Over/under frequency • Engine fault • Set on load <p>All indication lamps shall be of LED type (Make: Binay/ Technic/ L&T) and shall be mounted in front of the panel.</p> <p>A separate annunciator window (multi-window) with audible alarm for showing engine and alternator faults, gas alarm etc. shall also be provided.</p> <p>Push buttons for acknowledging/ resetting alarms, checking healthiness of trip circuits etc. shall also be provided.</p> <p>c) Fuses:</p> <p>All meters, indication lamps shall be protected by adequate nos. of HRC instrument</p>	

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Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		<p>fuses / MCBs of suitable rating.</p> <p>d) Auxiliary relays:</p> <p>Auxiliary Relays /Contactors shall be provided as per requirement of the control circuits. (Make: Siemens/Telemecanique/ABB/BCH/L&T/Indo-Asian). All relays shall have minimum 2 nos. spare contacts. Number of relays shall be as per the control circuit requirement. Current rating of aux contacts shall be as per control circuit requirement.</p> <p>Plug in type relays and contactors shall not be used in the control circuitry / panel.</p> <p>2.2.4 <u>ENGINE CONTROL SECTION:</u></p> <p>a) This section shall have:</p> <ul style="list-style-type: none"> • Digital RPM meter -1 No. • Engine alarm and trip condition monitoring • Engine start/stop controls • Battery charger circuit • Emergency stop switch (mushroom head type) <p>b) The following engine conditions shall give alarm indication:</p> <ul style="list-style-type: none"> • Low lube oil pressure (at low set point) • High water temp. (at low set point) • Engine over speed (at low set point) • Low battery voltage <p>c) In addition, engine shall be stopped with the help of heavy-duty 24V D.C. fuel solenoid on following trip conditions.</p> <ul style="list-style-type: none"> • Low lube oil pressure • High water temp. • Engine over speed 	

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Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		<ul style="list-style-type: none"> • High Vibration <p>d) Push buttons shall be provided for:</p> <ul style="list-style-type: none"> • Accept fault • Reset alarm • Engine start/ stop • Lamp test <p>e) Indication of each of the trips shall be provided in the front multi-annunciator window of the Engine control section. Suitable relay/ timer arrangement shall be provided wherever required.</p> <p>f) Hooter/ alarm to indicate Engine trip on fault</p> <p>g) All indication/ metering/ controls shall be mounted in front of the panel.</p> <p>2.2.5 <u>CHANGE OVER SWITCH:</u></p> <ul style="list-style-type: none"> • Output from the control panel bus bars shall be terminated on a changeover switch. Outgoing cable from the genset shall be connected to the outgoing side of the changeover switch. The other incomer of the changeover shall be reserved for connection to the mains supply / 2nd source. • Description of the changeover switch is as follows. • One no. four-pole on load changeover type switch rated for minimum 300 Amp. The switch shall be mounted inside the control panel. • Connection links/ spreader bars shall be provided with switch for proper termination of all power cables. • Power wiring from control panel to COS shall be done by the manufacturer. • Sufficient space and arrangement shall also be provided in COS enclosure for entry and termination of main power cables (1 from the MCCB, 2nd from other source & third for power supply to the load centre). • There shall be permanent connection from the MCCB to the Change-over switch(s) by bars / cable(s). 	

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Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		<p>2.3 MOTOR STARTER PANEL (If necessary for operation of GEG as per OEM/manufacturer design)</p> <p>Manufacturer shall also provide starter panels along with necessary cables for any motors if necessary (e.g. lube oil circulation pump motor, radiator cooling fan motor, enclosure ventilation fan motor etc.) for operation of the GEG sets.</p> <p>The starter panels as required shall be inside the acoustic enclosure and complete with breakers / MCCBs (for power isolation), contactors, thermal overload relays, indication lamps, voltmeters etc.</p> <p>2.4 WIRING SCHEME</p> <p>i) Control voltage for generator control: 240VAC. Potential circuit wiring of the control system shall be done with 1.5 sq mm, flexible copper, 1100V grade PVC insulated wires approved by ISI, TAC, FIA. All wiring shall have copper lugs & terminal blocks as required. Wiring for lighting circuit MCB, power outlet and wiring for CT shall be done with 2.5 sq mm, flexible copper, 1100v grade PVC insulated wires approved by ISI, TAC, FIA& have copper lugs. Colour code for wires shall be followed as per IS. Make: Finolex/Havells/ L&T/Polycab.</p> <p>ii) All power and control wiring inside the enclosure shall be done at manufacturer's works with armoured cables or with single core cables laid in metallic conduits/ casings. Heavy duty Single Compression Cable Glands shall be provided at all cable entries for armoured cables. Cables with conduit wiring shall have suitable entry clamp. All cables shall be with stranded copper conductor and shall be of 1100v grade and approved by ISI.</p> <p>iii) All control cable terminal ends shall have suitable heavy duty crimping lugs of tinned copper. Ferrules shall be provided for identification of cables. All components shall be labeled for identification.</p> <p>iv) Separate gland plates shall be provided for power and control cables.</p>	

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Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		<ul style="list-style-type: none"> v) Separate TB shall be provided for all interconnection cables between control panel and engine. vi) Provision of exhaust blower power supply shall be required if the blower is fitted inside the acoustic enclosure. vii) Power supply arrangement with switching and protection shall be also provided for any auxiliary motor, if installed for genset operation. viii) All auxiliary and main contactors shall be mounted on DIN channel. Plug in relays shall not be used. ix) Engine control wiring shall run from engine to control panel in heavy duty ISI approved galvanized flexible conduit supplied by the party. x) Control panel shall preferably be manufactured by the Genset Manufacturer. 	
	<p>3.0 DOCUMENTS</p>	<p>3.1 The following Documents / drawings shall be <u>submitted with the offer</u>:</p> <ul style="list-style-type: none"> i) GA and schematic drawings of alternator and control panel ii) Technical literature of alternator iii) Confirmation that the party agrees to all the points mentioned under electrical specification of generating set. Any deviation from the electrical specifications of the tender shall be specifically mentioned by the party with proper justification. Acceptance of deviations shall be at the discretion of OIL. iv) Type and make of components shall be as per tender. Equivalent make shall not be acceptable. v) The bidder shall also specifically confirm even if there is no deviation in their offer from technical specifications. <p>3.2 The successful bidder shall <u>obtain approval for the following drawings / documents</u> prior to manufacturing of alternator & control panel within 30 days of placement of order.</p> <ul style="list-style-type: none"> i) GA drawing ii) Documentary evidence from the manufacturer of generator confirming that the alternator to be supplied shall meet all specifications as mentioned in the order. 	

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Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		<p>Technical catalogue of the generator.</p> <ul style="list-style-type: none"> iii) Detailed power & control wiring diagram, detail enclosure drawings for control panel, COS, earthing scheme. iv) Layout plan of the unit showing all parts, cable routes. v) Illumination scheme. vi) Details of power cables, control cable and their routes. vii) Bill of materials. <p>3.3 Minimum Two sets of following <u>as built drawings / documents</u> per genset shall be submitted in bound form:</p> <ul style="list-style-type: none"> i) GA drawing ii) Detailed power & control wiring diagram, detailed enclosure drawings for control panel, earthing iii) Scheme, layout plan of the unit showing all parts. iv) Details of power cables, control cable and their routes. v) Bill of materials of all components. vi) Technical literature of alternator. vii) O&M manual for Alternator and main components of control panel. viii) Catalogues of various components. ix) All test certificates for tests done at manufacturer's works for alternator, control panel and complete unit. x) Tests done during commissioning. xi) Guarantee certificate for alternator and control panel. Guarantee shall be for 12 months after commissioning of Gen set or 18 months after supply, whichever is earlier. xii) List of recommended spares with cat nos./part nos. & description for two years' O&M. 	
	4.0 ELECTRICAL SPARES	<p>Following spares shall be supplied by the party along with package.</p> <ol style="list-style-type: none"> 1. AVR Unit for Alternator- One no. per Gen Set. 2. Rotating rectifier assembly fitted with complete set of forward and reverse diodes- One set per Gen set. 	

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Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
	<p>5.0</p> <p>INSPECTION AND TESTING FOR ALTERNATOR AND CONTROL PANEL INCLUDING STARTER PANEL as applicable</p>	<p>All the routine tests as per IS and load tests of the alternator and the control panel shall be witnessed by OIL's Engineer at respective manufacturer's works.</p> <p>The routine test of the alternator shall include the following minimum tests/measurements:</p> <ul style="list-style-type: none"> i) Measurement of winding resistances for generator armature, field, exciter armature and exciter field ii) Measurement of insulation resistance (before and after HV tests) for generator armature and field, exciter armature and field iii) High voltage (HV) test iv) Phase sequence test v) Voltage regulation test vi) Vibration measurement vii) Measurement of noise level viii) Overload test ix) Measurement of open circuit and short circuit characteristics <p>All the routine tests and load tests of the control panel, changeover panel and starter panel (if provided) shall be witnessed by OIL engineers at manufacturer's works. The routine test of the panels shall include the following minimum tests/measurements:</p> <ul style="list-style-type: none"> i) Physical checks & Operation check of all components ii) HV tests iii) Insulation tests (before and after HV tests) <p>Intimation for inspection for each item must be sent to OIL at least 15 days in advance.</p>	
	<p>6.0</p> <p>COMMISSIONING OF ELECTRICAL PART OF THE UNIT</p>	<p>6.1 Installation and Commissioning of the GEG sets with control panels, Auxilliary Motors, if provided, shall be carried out by the supplier as per NEC, ISI, CEA Regulations 2010 etc. at OIL's field area around Duliajan, Assam (India). Services of qualified and competent personnel of supplier are essential during commissioning of the generating sets.</p>	

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		<p>6.2 All tools, instruments, test kits, drill machine, vice, hardware, clamps etc. required for the job shall be provided by the supplier. Operational tests of all devises, their settings, shall also be carried out during commissioning job by the supplier.</p> <p>6.3 Accommodation and travel to site for supplier's all persons shall be arranged by supplier.</p> <p>6.4 Supplier shall carry out all earth connections including Generator Neutral & package earthing to earth electrodes / earthing grid available at site. Supply of required GI straps would be under supplier's scope.</p> <p>6.5 Any other item required for successful commissioning of the genset but not specified in the specification shall be supplied by party without any cost to OIL.</p> <p>6.6 All protective devices shall be tested for proper operation and setting done during commissioning by the commissioning person of the successful bidder. All working persons of party shall possess valid electrical license issued by licensing board, Assam.</p> <p>6.7 The Gen set shall be treated as successfully commissioned from electrical side after successful load test (reliability run) of the unit at OIL's field site as per details given in Sl. Nos. 15.0, 19.0 and 20.0 of the detailed description.</p>	
	7.0 GUARANTEE	Generator and control panel shall be guaranteed for 12 months after commissioning of Gen set or 18 months after supply, whichever is earlier.	
	SECTION B 1.0 Acoustic enclosure :	<u>SPECIFICATION OF ACOUSTIC ENCLOSURE</u> a) The Acoustic enclosure shall be designed and manufactured conforming to relevant standards suitable for outdoor installation exposed to weather conditions, and to limit overall noise level to 75dB(A) at a distance of 1 meter from the enclosure as per latest CPCB norms under free field conditions.	

NATURAL GAS ENGINE DRIVEN GENERATING SET OF CAPACITY: 125 KVA (ACOUSTIC GAS GENSET)

Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		<p>b) The construction shall such that it prevents entry of rain water splashing into the enclosure and allows free & quick flow of rain water to the ground in the event of heavy rain. The detailed construction shall conform to the details as under:</p> <p>c) The enclosure shall be fabricated out of the CRCA sheet of thickness not less than 1.6mm on the outside cover with inside cover having not less than 0.6mm thick perforated powder coated CRCA sheet.</p> <p>d) The hinged door shall be made from not less than 16SWG (1.6mm) thick CRCA sheet and shall be made air tight with neoprene rubber gasket and heavy duty locks.</p> <p>e) All sheet metals parts shall be processed through 7-tank process.</p> <p>f) The enclosure shall be powder coated.</p> <p>g) Ventilation fans shall be provided, exhaust piping inside the enclosure must be lagged (except bellow).</p> <p>h) Temperature rise inside the enclosure shall not be more than 5 Deg C for maximum ambient above 40 Deg C and it shall be below 10 Deg C for ambient below 40 Deg C.</p> <p>i) There shall be provision for oil, coolant drain and fill.</p> <p>j) The batteries shall be accommodated in the enclosure in battery rack.</p> <p>k) The canopy shall be provided with high enclosure temperature safety device.</p> <p>l) The acoustic lining shall be made up of high quality insulation material i.e. rockwool/glass/mineral wool/PU foam of appropriate thickness and density for sound absorption as per standard design of manufacturer's to reduce the sound level as per CPCB norms. The insulation material shall be covered with fine glass fiber cloth and would be supported by perforated MS sheet duly powder coated/GI sheet/ aluminium sheet.</p>	

NATURAL GAS ENGINE DRIVEN GENERATING SET OF CAPACITY: 125 KVA (ACOUSTIC GAS GENSET)

Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		<p>m) The enclosure shall be provided with suitable size & no. of hinged doors along the length of the enclosure on each side for easy access inside the acoustic enclosure for inspection, operation and maintenance purpose. Sufficient space shall be provided inside the enclosure on all sides of the genset for inspection, easy maintenance and repairs.</p> <p>n) The canopy shall be as compact as possible with good aesthetic look.</p> <p>o) The complete enclosure shall be of modular construction.</p> <p>p) The forced enclosure shall be as per manufacturer design using either engine radiator fan or additional blower fan(s). If the acoustic enclosure is to be provided with forced ventilation then suitable size of axial flow exhaust fan to take the hot air from the enclosure complete with necessary motors and auto start arrangement shall be provided. The forced ventilation arrangement shall be provided with auto stop arrangement to stop after 5 minutes of the stopping of the gen set.</p> <p>q) The acoustic enclosure shall be suitable for cable connection/connection through bus-trunking. Such arrangements on acoustic enclosure shall be water proof and dust proof conforming to IP-65 protection. All the terminal boxes/Junction boxes etc, the battery and self starter connection terminals / and its components shall be housed inside DGMS approved intrinsically safe enclosure.</p> <p>r) The inside of the enclosure shall be provided with at least two nos. 28W-T5 fluorescent tube light luminaire controlled by a 5A switch for adequate lighting during servicing etc. of the gen set. The power supply to this luminaire shall be from the load side of the panel so that it can remain energized under all conditions.</p> <p>s) The control panel for the Generating set shall be installed separately inside the acoustic enclosure.</p> <p>t) A high temperature trip system (to shut down the engine by cutting off fuel supply to the engine through the solenoid valve) with variable setting connected to a thermostatically controlled blower must be provided for eliminating excessive heat dissipated by the engine</p>	

NATURAL GAS ENGINE DRIVEN GENERATING SET OF CAPACITY: 125 KVA (ACOUSTIC GAS GENSET)

Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		<p>within the acoustic enclosure.</p> <p>u) Suitable continuous on line Temperature Monitoring and Control System with Alarm and Shut Down Mechanism shall be provided.</p> <p>v) When the concentration of gas inside the acoustic enclosure reaches 10 % of LEL of gas, audio visual alarm shall activate and automatic preventive measure shall activate to reduce the concentration of leakage gas. These preventive measures include switching on heavy duty exhaust fan to disperse leakage gas or stoppage of gas leakage itself.</p> <p>w) When the concentration of gas inside the acoustic enclosure reaches 15 % of LEL of gas (or any other suitable rating), the alternator main circuit breaker shall trip automatically and subsequently the engine shall be shut down instantaneously by automatic device (i.e., cutting off power supply to the fuel solenoid valve.)</p> <p>x) A separate Blower of suitable size (size/capacity to be specified in the offer) shall be provided and it shall be in operation even if the thermostatically controlled blower stops / fails. There shall be a provision of emergency shutdown of the generating set (Prime Mover) from outside the enclosure.</p> <p>y) The enclosure shall be complete with power and control wiring between control panel and alternator and other components like blowers etc with proper size copper cable. The cables shall be terminated using gland and tinned copper crimped type lugs and sockets. The connection from the alternator and control panel shall be carried out with 3.5 cores 120 sq. mm PVC insulated, PVC sheathed armored copper cable. All control and power cabling inside the enclosure shall be well protected from mechanical damage by incorporation of MS cable duct/covered cable trays. Suitable cut out with guard gasket shall be provided in the enclosure for safe entry/exit of all cables.</p>	
	2.0 SERVICE ACCESSIBILITY:	<p>Genset /engine control panel shall be visible from outside the enclosure.</p> <p>a) Routine/periodical check on engine/alternator (filter replacement and tappet setting etc) shall be possible without dismantling acoustic enclosure.</p>	

NATURAL GAS ENGINE DRIVEN GENERATING SET OF CAPACITY: 125 KVA (ACOUSTIC GAS GENSET)

Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		<p>b) For major repairs/overhaul, it may be required to dismantle the acoustic enclosure.</p> <p>c) Sufficient space shall be available around the genset for inspection and service.</p>	
	3.0 ENCLOSURE ILLUMINATION	<p>(i) A separate circuit shall be provided for lighting of the acoustic part of the enclosure. Minimum 2 Nos. LED lamps shall be fitted in wall mounted type/ bulkhead light fittings.</p> <p>(ii) Light shall be switched from one MCB, 6 amp, C curve, mounted on control panel cover & have back-up HRC fuse and neutral link of 6 amp rating.</p>	
	4.0 ENCLOSURE EARTHING ARRANGEMENT:	<p>Two nos. of 50x6 mm GI straps (earth bus) shall be provided inside the enclosure on both sides and fixed on the skid floor. The earth loops from alternator, control panel, changeover panel, auxiliary motors (if provided) shall be connected to these straps with two distinct and independent GI earth straps of sufficient size as per IS 3043.</p> <p>Earth leads and earthing jobs as per IS-3043.</p> <p>Suitable studs with fastener arrangement shall be provided on the earth buses for connection of earth straps to outside earth electrodes.</p>	
	<u>ANNEXURE II</u>	BID EVALUATION CRITERIA (BEC)/BID REJECTION CRITERIA (BRC):	
		<p>A) TECHNICAL:</p> <p><u>B. Technical</u></p>	

NATURAL GAS ENGINE DRIVEN GENERATING SET OF CAPACITY: 125 KVA (ACOUSTIC GAS GENSET)

Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		<p>1.0 Bidder's Eligibility:</p> <p>The bidder should either be an</p> <p>(i) OEM (Original Equipment Manufacturer) of the Engine/ Alternator/ Generator set</p> <p style="text-align: center;">Or</p> <p>(ii) Authorized dealer of OEM of Engine/ Alternator/ Generator set</p> <p>2.0 Bidder's Experience:</p> <p>(i) The bidder must have supplied through a single order at least 04 (four) no. of generator sets of capacity 50 KVA or higher to any Govt. /Semi Govt./ Public Limited Company in India during the last 05 (five) years as on original bid closing date of the tender.</p> <p>(ii) Documentary evidence in respect of manufacturing & supply should be submitted with the technical bid, in the form of copies of relevant signed Purchase Orders along with copies of any of the following documents in respect of satisfactory execution of the Purchase Order failing which the bid will be rejected.</p> <p>(a) Signed & sealed satisfactory supply/ completion/ installation report (in original on user's letter head) (OR)</p> <p>(b) Bill of Lading (OR)</p> <p>(c) Consignee delivery receipt/ challan (OR)</p> <p>(d) Central Excise Gate Pass/ Tax Invoice issued under relevant rules of Central Excise/Vat./GST(OR)</p> <p>(e) Commercial Invoice/ Payment Invoice.</p> <p>(iii) A copy of the Certificate of Incorporation (if the bidder is OEM) and a copy of valid authorized dealership certificate (if the bidder is Authorized dealer) must be submitted in the technical bid.</p> <p>Notes to Clause No.2.0 above:</p>	

NATURAL GAS ENGINE DRIVEN GENERATING SET OF CAPACITY: 125 KVA (ACOUSTIC GAS GENSET)

Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		<p>a. The purchase order date need not be within 05(five) years preceding original bid closing date of this tender. However, the execution of supply should be within 05(five) years preceding original bid closing date of this tender.</p> <p>b. A supply order executed by a bidder for its own organisation / subsidiary cannot be considered as experience for the purpose of meeting BEC.</p> <p>3.0 The engine shall be of four-stroke cycle, spark-ignited, radiator cooled, in-line naturally aspirated /turbocharged/turbocharged after-cooled gas engine with electronic Engine Control Unit integrating governing, monitoring and diagnosing features and functions, capable of operating without any external ventilation system at the given site conditions and should be suitable for generator drive meeting the latest norms of the Environment (protection) Act 1986 (Latest version of CPCB II) for emission and noise level.</p> <p>The bidder must submit copy of the Type Approval & Conformity of Production Certificate for the engine/generating set in the technical bid.</p> <p>4.0 The rated output of the engine at 1500RPM should be suitable for driving generator set of capacity 125kVA Prime Duty and Performance Class not less than G2 as per ISO 8528-5 with natural gas fuel and compression ratio not exceeding 12:1.</p> <p>The bidder must submit the manufacturer's (OEM) product catalogue of the engine/generating set where the rated output should find mention in it in the technical bid.</p> <p>5.0 Delivery Period: The offered item must be delivered within 08 (eight) months from the date of receipt of formal order. The bidder should categorically confirm the above, in the technical bid.</p> <p>B) FINANCIAL:</p> <p>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. 186.50 Lakhs.</p>	

NATURAL GAS ENGINE DRIVEN GENERATING SET OF CAPACITY: 125 KVA (ACOUSTIC GAS GENSET)

Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		<p>b) Net Worth of the firm should be Positive for preceding financial / Accounting year (FY: 2017-2018).</p> <p><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'.</p> <p>Note:</p> <p>a) For proof of Annual Turnover & Net worth any one of the following document must be submitted along with the bid:-</p> <p>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-J.</p> <p style="text-align: center;">OR</p> <p>ii) Audited Balance Sheet along with Profit & Loss account.”</p> <p>b) In case the bidder is a Central Govt. Organization/PSU/State Govt. Organization/Semi-State Govt. Organization or any other Central/State Govt. Undertaking, where the auditor is appointed only after the approval of Comptroller and Auditor General of India and the Central Government, their certificates may be accepted even though FRN is not available. However, bidder to provide documentary evidence for the same.</p>	
	<u>ANNEXURE IIA</u>	SPECIAL TERMS AND CONDITIONS	

NATURAL GAS ENGINE DRIVEN GENERATING SET OF CAPACITY: 125 KVA (ACOUSTIC GAS GENSET)

Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		<p>1.0 Undertaking from the OEM of Engine and Alternator (in original on OEM's letter head) shall be submitted by the bidder along with technical bid, guaranteeing uninterrupted supply of spares and availability of service for at least 10 years with effect from delivery of the Item / product for the item / product to be supplied under the Tender / Order, in the event of placement of order.</p> <p>2.0 The Engine and the Alternator (in case of bought out item) must be purchased from the respective OEM or the authorized dealer of OEM of these items and such purchase documents must be submitted along with the supply of the items. Bidders must furnish undertaking to comply with the same in their technical bids.</p>	
	ANNEXURE-III	<u>EQUIPMENT DATA SHEET</u>	
		Description of Data sought	
	1	Typical Maximum Prime Power Rating at 50Hz(0.8 P.F.),kW:	
	2	Output Voltage and Frequency:	
	3	Power Factor:	
	4	No. of Phases:	
	5	Over all Dimensions, MM:	
	6	Dry Weight:	
	7	Performance in 40°C air, 150 MSL, Prime power rating at 0.8 power factor (KW)/ kVA rating:	
	8	Fuel consumption at standard conditions for: 50%, 75% and 100% load	
	9	Exhaust gas components; % NOX, % SO, Tons particulate/yr/mo at 50%, 100% load	
	10	Verification of 10% overload capability	

NATURAL GAS ENGINE DRIVEN GENERATING SET OF CAPACITY: 125 KVA (ACOUSTIC GAS GENSET)

Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
		ENGINE	
	1	Type/Model:	
	2	No. of cylinders:	
	3	Aspiration:	
	4	Bore:	
	5	Stroke:	
	6	Displacement, Litre:	
	7	Engine Output Prime, kWm (Max):	
	8	Piston Speed, m/s:	
	9	Brake Mean Effective Pressure(BMEP), kPa:	
	10	Engine Rating(BHP) at 1500RPM and Piston Compression Ratio:	
	11	Natural Gas Consumption for Gas Calorific Value: (970BTU/CFT or 8632kCal/M3)SCM/Hr.	
	12	Exhaust Temperature(Stack) ^o C	
	13	Energy Input, kW:	
	14	Energy Output, kW:	
	15	Heat Rejected to Jacket Water, kW:	
	16	Heat Rejected to After-cooler LTA Circuit, kW:	

NATURAL GAS ENGINE DRIVEN GENERATING SET OF CAPACITY: 125 KVA (ACOUSTIC GAS GENSET)

Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
	17	Heat Rejected to Exhaust, kW:	
	18	Heat Rejected to Ambient+ Unaccounted, kW:	
	19	Air Flow in Litre/sec:	
	20	Exhaust Gas Flow, Litre/sec:	
	21	Exhaust System Permissible Back Pressure, mm Hg:	
	22	Engine Water Flow, Litre/Min:	
	23	After Cooler Circulating Water Flow, Litre/Min:	
	24	Raw Water for Engine Side Heat Exchanger, Litre/Min:	
	25	Raw Water for After Cooler Heat Exchanger, Litre/Min	
	26	Recommended Cooling Tower Capacity, TR:	
	27	Main Line Pipe size, MM:	
	28	Main Line Gas Pressure, Kg/CM2	
	29	Engine Dimension, L x B x H:	
	30	Dry Weight of the Engine without Cooling System:	
	31	Governing system	
	32	Type of governor	
	33	Accuracy	

NATURAL GAS ENGINE DRIVEN GENERATING SET OF CAPACITY: 125 KVA (ACOUSTIC GAS GENSET)

Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
	34	Engine protection details	
	35	Method of starting	
		RADIATOR/HEAT EXCHANGER	
	1	Model/Type	
	2	Coolant Capacity	
	3	Horse power required to run the radiator fan	
		ALTERNATOR	
	1	Make's name	
	2	Rated KVA	
	3	Power factor	
	4	Rated voltage	
	5	Rated current	
	6	Speed in rpm	
	7	Frequency	
	8	No. Of phase	
	9	Over load capacity	
	10	Class Of insulation	

NATURAL GAS ENGINE DRIVEN GENERATING SET OF CAPACITY: 125 KVA (ACOUSTIC GAS GENSET)

Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
	11	Type of enclosure	
	12	Voltage regulation	
	13	Direction of rotation	
	14	Type of bearing	
	15	RTD's provided (no)	
	16	Model	
	17	Frame	
	18	Insulation class	
	19	Number of Leads	
	20	Weight, total	
	21	Weight, rotor	
	22	Air Flow	
	23	At rated voltage:	
	24	Efficiency at 0.8 power factor for: 50% load, 75% load, 100% load	
	25	Fault current, 3 phase symmetrical	
	26	Decrement curve	
	<u>ANNEXURE-IV</u>	<u>CHECK LIST</u>	

NATURAL GAS ENGINE DRIVEN GENERATING SET OF CAPACITY: 125 KVA (ACOUSTIC GAS GENSET)

Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
	(A)	(B) TECHNICAL The following checklist must be completed and with the offer. Please ensure that all these points are covered in your offer. These shall ensure that your offer is properly evaluated. Please tick mark #Yes# or #No# to the following question, in the right	(C)
		Check List item	
1		Whether quoted as OEM of Engine and whether documentary evidence submitted?	YES/NO
2		Whether quoted as OEM of Alternator & whether documentary evidence submitted?	YES/NO
3		Whether quoted as OEM of Genset & whether documentary evidence submitted?	YES/NO
4		Whether quoted as Authorized Dealer of OEM (Engine/Alternator/ Genset) and whether documentary evidences submitted?	YES/NO
5		Whether After-sale Service Center for the engine offered located in India?	YES/NO
6		Whether clauses of the technical bid is responded clause-wise	YES/NO
7		Whether deviation (if any) from the technical specification are highlighted clause wise?	YES/NO
8		Whether detail specification of engine with manufacturer's technical literature/catalogue enclosed?	YES/NO
9		Whether detail specification of Alternator with manufacturer's technical literature/catalogue enclosed?	YES/NO
10		Whether test certificate of Alternator and Control Panel shall be submitted?	YES/NO
11		Whether power and Wiring diagram of Alternator Control Panel submitted?	YES/NO
12		Whether bill of Materials of Control Panel submitted?	YES/NO
13		Whether confirmed that control panel drawing shall be approved by OIL before manufacturing in the event of placement of order?	YES/NO

NATURAL GAS ENGINE DRIVEN GENERATING SET OF CAPACITY: 125 KVA (ACOUSTIC GAS GENSET)

Sl No	Section / subsection	NIT Description	Bidder 's Comments / Remarks
14		Whether offered engine is as per NIT specifications?	YES/NO
15		Whether quoted for supply, installation, commissioning & Test run at site of generator set?	YES/NO
16		Whether the Generator Set is rated in the 125kVA at 0.8PF, 415Volts AC 3 Phase 50Hertz Prime Duty?	YES/NO
17		Whether the engine and the Gen set design is as per ISO 3046/BS5514/ISO8528 standards?	YES/NO
18		Whether documentary evidences i.e. (i) Purchase Order Copies, (ii) Invoices, (iii) Satisfactory supply/ completion / Installation report for the supplies made against the past orders for the specied engine driven generator sets submitted with the technical bid?	YES/NO
19		Whether undertaking and confirmation from OEM that the equipment to be supplied are not going to become obsolete for the next 10 years and whether spare parts for 10 years shall continued to be supplied at the least?	YES/NO
20		Whether undertaking/ certificate from the engine OEM/Generator Set OEM certifying the block load capability of the engine/generator submitted with the technical bid?	YES/NO
21		Whether undertaking/ certificate from the engine OEM certifying the rated output vis-a-vis compression ratio and RPM of the engine submitted with the technical bid?	YES/NO
22		Whether undertaking/ certificate from the engine manufacturer in support of the engine rating and output is submitted?	YES/NO
23		Whether Composite Operation Manual for the Generator Set Complete and Trouble Shooting Chart shall be supplied along with the Order?	YES/NO
24		Whether Engine Shop Manual (Engine Rebuilding Manual) and Parts Manual shall be supplied with the Order?	YES/NO
25		Whether spare parts of engine, gas train etc for two years operation and maintenance shall be supplied along with the order and list of such spares submitted with the technical bid?	YES/NO
26		Whether the content of this Check List is read and responded?	YES/NO

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 **SDI0837P19** 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 Organization "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.

ANNEXURE- DDD

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 cartelization 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.

(3) The Bidder/Contractor signing Integrity Pact shall not approach the Courts while representing the matters to IEMs and he/she will await their decision in the matter.

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.
4. A transgression is considered to have occurred if in light of available evidence no reasonable doubt is possible.
5. Integrity Pact, in respect of a particular contract, shall be operative from the date Integrity Pact is signed by both the parties till the final completion of the contract **or as mentioned in Section 9- Pact Duration whichever is later**. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings

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 Earnest Money Deposit / Bid Security.

(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 Security Deposit / Performance Bank Guarantee.

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 Principal will enter into Pacts on identical terms with all bidders and contractors.

2. The Bidder / Contractor undertake(s) to procure from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the provisions laid down in this agreement/Pact by any of its sub-contractors/sub-vendors.

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

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. However, the Independent External Monitor shall give an opportunity to the bidder / contractor to present its case before making its recommendations to the Principal.

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

ANNEXURE- DDD

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. The Arbitration clause provided in the main tender document / contract shall not be applicable for any issue / dispute arising under Integrity Pact.

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.

RANJAN BARMAN
CHIEF MANAGER MATERIALS (IP)

.....

For the Principal

.....

For the Bidder/Contractor

Witness 1:

Witness 2:

Place. DULIAJAN

Date. 14.03.2018

Technical Bid Checklist**Annexure-EEE**

Tender No.			
Bidder's Name :			
		Compliance by Bidder	
Sl. NO.	BEC / TENDER REQUIREMENTS	Indicate 'Confirmed' / 'Not Confirmed' / Not applicable	Indicate Corresponding page ref. of unpriced bid or Comments
1	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 Received Delivery Challans (OR) (iv) Central Excise Gate Pass / Tax , Invoices issued under relevant rules of Central Excise / VAT (OR) (v) any other documentary evidence that can substantiate the satisfactory execution of 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 Received Delivery Challans (OR) (iv) Central Excise Gate Pass / Tax , Invoices issued under relevant rules of Central Excise / VAT (OR) (v) any other documentary evidence that can substantiate the satisfactory

**(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.