



ऑयल इंडिया लिमिटेड
(भारत सरकार का उद्योग) पंजीकृत कार्यालय: दुर्गापुर, असम
Oil India Limited
(A Government of India Enterprise) Registered Office: Durgapur, Assam

Oil India Limited (RP)
2-A. District Shopping Centre
Saraswati Nagar, Basni
Jodhpur-342005,
Phone- 0291 -2729-473,
0291 -2729-466
Fax: 0291-2727050
Email: km_kumar@oilindia.in
erp_mm@oilindia.in

FORWARDING LETTER

TENDER NO. SJI2714P17 Dated 14.10.2016

INVITATION TO e-BID UNDER SINGLE STAGE TWO BID SYSTEM

Dear Sirs,

1.0 Oil India Limited, Rajasthan Project invites Bids for **Supply, Transportation, Loading-Unloading, Testing and Commissioning of Three (03) nos. 180 KVA Diesel Engine driven Generating Sets with Acoustic enclosures & One(01) no. Power Distribution Board at Baghewala oil field area of Jaisalmer District, Rajasthan through its e-Procurement site.** 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 prescribed Bid Forms for submission of bids are available in the Technical RFx -
> External Area - > Tender Documents

The tender will be governed by:

1. Technical specifications and Quantity, **BRC/BEC** and any other notes as per **Annexure – IA.**
2. General terms and Conditions of the tender are as per attached document No. MM/LOCAL/E-01/2005.
3. The prescribed Bid Forms for submission of bids are available in the tender document folder. Technical Bid Checklist : Annexure-EEE, Response Entry Sheet : Annexure-FFF and Bank Details : Annexure-GGG must be filled-up and submitted along with the technical bid.
4. The tender is invited with firm price for the specified quantity. Further details of tender are given in Technical Rfx -> External Area - > Tender Documents

5. 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).
6. 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.
7. Type of Bidding : **Single Stage Two Bid system**
8. Tender Fee : **INR 1,000.00**
9. Bid security : **INR 1,08,000.00**
10. Performance Security: : **Applicable (@10% of the PO value)**
11. Integrity Pact : **Applicable**
12. Bid Closing /Opening Date & Time : **Please refer to the e- Tender Portal**
13. Bid Validity : **Bid should be valid for 120 days from bid closing date.**
14. Bid Bond Validity : **Bid Bond should be valid up to 31.07.2017**
(Bid bond format has been changed. Please submit bid bond as per revised format. Refer: MM/LOCAL/E-01/2005)

Special Note:

1.0 Technical and Financial Criteria:

In addition to the experience criteria given under point no. BB of Annexure-IA related to BRC, following Financial criteria shall be considered as on the original Bid Closing Date. (Documentary evidence to be provided along with the bid in Technical RFx -> External Area -> Tender Documents failing which the offer shall be rejected).

Criteria	Complied / Not Complied. Documentary evidence submitted / not submitted
a) Annual financial turnover of the firm in any of the preceding 3 financial years should not be less than INR 26.83 Lakhs.	
b) Net Worth of the firm should be Positive for preceding financial /accounting year.	

Note: For experience criteria, documentary evidence should be submitted in the form of copies of relevant Purchase Orders along with copies of any of the documents in respect of satisfactory execution of each of those Purchase Orders, such as ó (i) Satisfactory Inspection Report (OR) (ii) Satisfactory Supply Completion / Installation Report (OR) (iii) Consignee Receipted Delivery Challans (OR) (iv) Central Excise Gate Pass / Tax , Invoices issued under relevant rules of Central Excise / VAT (OR) (v) any other documentary evidence that can substantiate the satisfactory execution of each of the purchase orders cited above. For Annual financial turnover and net worth, enclose the audited Annual Report, Balance Sheet and Profit and Loss Account certified by a chartered accountant.

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

Vendors who do not have OIL's User ID & password, may generate User ID & password online by the Vendor by using the link for supplier enlistment given in OIL's e-tender portal and then pay Tender Fee on-line through OIL's electronic Payment Gateway up to one week prior to the Bid closing date (or as amended in e-portal).

Alternatively application showing full address/email address with Tender Fee of INR 1,000.00 in the form of crossed "Payee Account only "Bank Draft/Bankers' Cheque drawn by Bank and valid for 90 days from the date of issue of the same or in the form of Indian Postal Orders in favour of OIL INDIA LIMITED and payable at Jodhpur is to be submitted to Chief Manager (M&C), Oil India Limited, Rajasthan Project, 2A, District Shopping Centre Saraswati Nagar, Basni, Jodhpur-342005, Rajasthan. Application shall be accepted only upto one week prior to the Bid closing date (or as amended in e-portal). The envelope containing the application for participation should clearly indicate "REQUEST FOR ISSUE OF USER ID AND PASSWORD FOR E TENDER NO. SJI2714P17 " for easy identification and timely issue of user ID and password. On receipt of requisite tender fee, USER ID and initial PASSWORD will be communicated to the bidder (through e-mail) and will be allowed to participate in the tender through OIL's e- Procurement portal. No physical tender documents will be provided. Details of NIT can be viewed using "Guest Login" provided in the e-Procurement portal. The link to e-Procurement portal has been also provided through OIL's web site www.oil-india.com.

NOTE:

In case of MSE/PSUs/ Govt. Bodies / eligible institutions etc., they shall apply to Chief Manager (M&C), Oil India Limited, Rajasthan Project, 2A, District Shopping Centre Saraswati Nagar, Basni, Jodhpur-342005, Rajasthan for waiver of Tender Fee upto one week prior to the Bid closing date (or as amended in e-portal).

3.0 Please note that all tender forms and supporting documents are to be submitted through OIL's e-Procurement site only except following document/materials which are to be submitted manually in sealed envelope super scribed with **Tender no.** and **Due date** to **Chief Manager (M&C), Oil India Limited, Rajasthan Project, 2A, District Shopping Centre, Saraswati Nagar, Basni, Jodhpur-342005, Rajasthan** 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 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.

4.1 Please ensure that Technical Bid / all technical documents related to the tender are uploaded in the Technical RFx Response-> User - > Technical Bid only. The “TECHNO-COMMERCIAL UNPRICED BID” shall contain all techno-commercial details except the prices. Please note that no price details should be uploaded in Technical RFx Response. Offer not complying with above submission procedure will be rejected.

4.2 In Technical Bid opening, only Technical Rfx will be opened. Therefore, the bidder should ensure that “TECHNO-COMMERCIAL UNPRICED BID” should contain details as mentioned in the technical specifications as well as BEC/ BRC and upload the same in the Technical RFx Response-> User - > Technical Bid. No price should be given in above Technical Rfx otherwise the offer will be rejected. Please go through the help document in details before uploading the document and ensure uploading of technical bid in the Technical RFx Response-> User - > Technical Bid only.

4.3 The “PRICE BID” must contain the price schedule and the bidder’s commercial terms and conditions. The bidder must quote their charges/rates in the manner as called for vide Price Bid Format/Price Schedule Proforma-I & Price Bid Format/Price Schedule Proforma-II and upload the same under “Notes & Attachment” in the e-tender portal.

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 15:00 Hrs (IST) on the bid closing date 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. OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide **Annexure-XII** of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL's competent signatory. The proforma has to be returned 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. Any bid not accompanied by Integrity Pact Proforma duly signed (digitally) by the bidder shall be rejected straightway. 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.

b) The name of the OIL's Independent External Monitors at present are as under:

1. SHRI RAJIV MATHUR, IPS(Retd.),
e-Mail ID : rajivmathur23@gmail.com

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

10.0 The tender shall be governed by the Bid Rejection & Bid Evaluation Criteria given in enclosed **Annexure-IA & also under 1.0 above**. However, if any of the **Clauses of the Bid Rejection Criteria / Bid Evaluation Criteria (as per Annexure-IA & under 1.0 above)** contradict the **Clauses of the tender and / or "General Terms & Conditions"** as per Booklet No. MM/LOCAL/E-01/2005 elsewhere, those in the **BEC / BRC** shall prevail.

11.0 Materials to be supplied hereunder shall be new, unused, of recent make, of best quality & workmanship and shall be guaranteed by the seller against defects arising from faulty materials, workmanship or design. Defective goods / materials or parts notified by OIL to the seller shall be replaced immediately by the supplier at the supplier's expense at no extra cost to OIL.

12.0 Bidder to quote best delivery period

13.0 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.

14.0 All the Bids must be Digitally Signed using öClass 3ö digital certificate (*e-commerce application*) with organisation name 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.

15.0 The following points are deemed as “non-negotiable” and offer shall be rejected straightaway without seeking clarification in case of the following:

- i. **Validity of bid shorter than validity indicated in the tender.**
- ii. **Original Bid Security not received within the stipulated date and time mentioned in the tender.**
- iii. **Bid security with (a) Validity shorter than the validity indicated in tender and/or (b) Bid security amount lesser than the amount indicated in the tender.**
- iv. **In case the party refuses to sign the Integrity Pact.**

16.0 BIDDERS ARE REQUIRED TO QUOTE WITH MINIMUM VALIDITY OF 120 DAYS FROM THE BID CLOSING DATE AS PER NIT REQUIREMENT. BIDS WITH LESSER VALIDITY SHALL BE REJECTED.

17.0 The original bid security (Amount is mentioned above and also in Basic Data of the tender in OIL's e-portal) should reach Chief Manager (M&C), Oil India Limited, Rajasthan Project, 2A, District Shopping Centre Saraswati Nagar, Basni, Jodhpur-342005, Rajasthan. before bid closing date and time of the technical bid. Bid without original Bid Security will be rejected. The bidders who are exempted from submitting the Bid Bond should attach documentary evidence in the Collaboration folder as per General Terms and conditions for Global Tender (MM/LOCAL/E-01/2005). **The bid security shall be valid up to 31.07.2017. Please submit bid bond as per revised format.**

Note : Bid Security may also be paid online.

18.0 Performance Security @10% of order value is applicable against this tender. Please refer clause 10.0 of Section A of General Terms and conditions for Global Tender (MM/LOCAL/E-01/2005).

19.0 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.

20.0 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.

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

22.0 PURCHASE PREFERENCE : Purchase Preference will be applicable as per latest Govt. Guidelines. Bidders to take note of the same and quote accordingly. It is the bidder's responsibility to submit necessary documents from the Competent Authority to establish that they are eligible for purchase preference against this tender.

23.0 PRICE PREFERENCE : Price Preference will be applicable as per latest Govt. Guidelines. Bidders to take note of the same and quote accordingly. It is the bidder's responsibility to submit necessary documents from the Competent Authority to establish that they are eligible for price preference against this tender

NOTE:

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

Yours Faithfully

Sd-

(KRISHNA MOHAN KUMAR)
MATERIALS MANAGER
FOR CHIEF MANAGER (M&C)
FOR DGM-SERVICES
FOR EXECUTIVE DIRECTOR (RP)



ऑयल इंडिया लिमिटेड
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Email: km_kumar@oilindia.in
erp_mm@oilindia.in

ANNEXURE-IA

Tender No. & Date : SJI2714P17 Dated 14.10.2016

Bidding Type : Single Stage Two Bid system

Bid Closing on : As mentioned in e-portal

Bid Opening on : As mentioned in e-portal

OIL INDIA LIMITED (Rajasthan Project) invites Indigenous Bids for items detailed below:

TECHNICAL SPECIFICATIONS WITH QUANTITY:

<u>SL. NO.</u> <u>MAT.</u> <u>CODE</u>	<u>MATERIAL DESCRIPTION</u>	<u>QUANTITY</u>	<u>UOM</u>
10 OC000242	SUPPLY OF 180 KVA DIESEL ENGINE DRIVEN GENERATING SETS WITH ACOUSTIC ENCLOSURES	3	NO
20	INSTALLATION & COMMISSIONING OF DG SETS UNDER SL. NO. 10 ABOVE	1	AU
30	POWER DISTRIBUTION BOARD FOR DG SET UNDER SL. NO. 10 ABOVE	1	NO

Supply, Transportation, Loading-Unloading, Testing and Commissioning of Three (3) nos. 180 KVA Diesel Engine Driven Generating Sets with Acoustic enclosures, Power Distribution Board at Baghewala Oil Field Area of OIL INDIA LIMITED in Jaisalmer District, Rajasthan.

Engine make : Cummins, Volvo, Kirloskar, Ruston, Mahindra, Eicher

Alternator make: **Stamford , Kirlosker, Crompton Greaves**

AA.TECHNICAL SPECIFICATIONS:

The DG set shall have to meet the following specifications:

1.0 **General:** The Diesel-Generating sets shall be used for Oil India Ltd. oil field operational requirements at different locations. It will not be installed permanently at a fixed place.

To facilitate frequent loading & unloading of the DG sets, sturdy lifting arrangements (by EOT crane using metallic slings) must be provided. The acoustic enclosure shall be designed suitably with metallic channel or tubular pipes on both sides (at the top) meant for protection of the DG set enclosure.

2.0 **DIESEL ENGINE:**

Water cooled, Vertical in-line, four stroke, diesel engine having in line fuel pump, governing class-A1 capable of developing sufficient horsepower to drive the alternator when running at 1500 rpm at altitude not exceeding 300 meter above mean sea level. The engine should be suitable for continuous duty at temperatures varying from 5 degree Celsius in winter to up to 50 degree Celsius in summer & capable of developing minimum 230 HP.

The engine should conform to IS: 10,002 or ISO: 3046 or latest.

The engine should comprise the following standard accessories such as

2.1 Flywheel

2.2 Dual Fuel filter system: Pre-filter including water separator & water-in-fuel sensor & main filter

2.3 Lubricating oil filter

2.4 Heavy duty air intake filters.

2.5 Lubricating oil pressure gauge

2.6 Tachometer

2.7 24 volt of electric starting equipment (preferably LUCAS TVS make or equivalent) fitted to the engine and comprising of battery (180 AH-02 nos. make, Lucas, Amco, Exide etc.), starter, charging alternator and starting ring gear fitted to the flywheel.

2.8 Heavy Duty Radiator capable of keeping the engine in good running condition at atmospheric temperatures mentioned earlier.

2.9 Fuel tank of sufficient capacity to run the gen-set continuously for 24 hours.

2.10 Guard for all moving parts of the engine such as W/pump belt, charging alternator belt, radiator fan etc.

2.11 Residential type Exhaust Silencer with spark arrestor.

2.12 Engine safety controls:

At least High water temp, low lube oil pressure and over speed to be provided to prevent any damage to the engine.

3.0 **ENGINE CONTROL PANEL:**

i) The engine control panel shall be floor mounted installed inside the canopy. The meter readings (Voltage, Ampere, Pressure, Temperature etc.) & machine operational status (including indication lights etc.) shall be visible from outside when DG set is in running condition.

ii) A hinged door of suitable size with toughened transparent glass with all the acoustic enclosure features having neoprene rubber gaskets shall be provided in front of the control panel to meet the operational & maintenance requirements.

The transparent toughened glass shall be incorporated on the hinged door for viewing the meter readings / status of the engine. The control panel shall have at least the following items:

ii) The control panel shall have at least the following items:

a) Engine control switch for START, RUN, OFF.

b) Engine START switch / push button.

c) Digital / Analog meters for

“ Voltage indication

“ Current indication

“ Battery charging current

“ RPM (tachometer)

“ Running hour's counter &

“ Start counter

“ Hour meter to indicate engine run hours

d) Digital / Analog gauges for

“ Engine oil pressure

“ Engine oil temperature

“ Water temperature

e) Indicating lamps for

“ Phase indication

“ Trip on fault (for Engine fault)

“ Trip on fault (for electrical faults . E/F, O/C fault etc.)

“ Set running

f) Alarm/annunciation windows for faults & or trip

iii) Additionally, emergency stop / push button shall be incorporated suitably on the body of the acoustic enclosure to facilitate DG set stop operation from outside

iv) 1 No. 400 Amps, 4 pole, MCCB, 25 KA breaking capacity shall be suitably incorporated on the body of the enclosure for feeding the power generated by the alternator to load / distribution board. The MCCB shall have inbuilt electronic type adjustable overload & short circuit protection.

v) Overload shall be adjustable from 1.1 times to 1.5 times the rated rating of the MCCB and short circuit setting should be also adjustable from 1.5 times to 5 times the rated rating of the MCCB.

Make: Legrand/ Merlin-Gerin/ABB/HAVELS.

MCCB should trip on the following faults

“ Earth leakage from external source.

“ Over load & short circuit.

vi) Suitable easy route with metallic conduit inside the skid / canopy shall be provided facilitating power feeding cable connection (for motor loads outside) at the MCCB installed in the control panel. Cable gland suitable for 3.5 core 185 sq. mm. Armoured aluminium cable shall be provided at the control panel bottom plate / gland plate.

vii) 1 No. CBCT along with Earth leakage relay for protection against earth leakage should be provided.

Relay adjustable settings: 0.1 - 0.75 Amp & 0.06 - 3.0 Sec in steps.

In case of earth leakage fault the relay should trip the MCCB through shunt trip coil.

viii) CTs with suitable ratio, capacity & nos. shall be provided for metering & control.

ix) Any items/points not included in the specifications but necessary for operation shall be stated by the bidder.

4.0 ALTERNATOR:

Brushless type alternator of 180 KVA rating (minimum) when coupled to water cooled engine shall develop 180 KVA (minimum) at 3 phase, 0.8 power factor, 415 Volt when running at 1500 rpm under NTP conditions.

A. TECHNICAL SPECIFICATIONS OF ALTERNATOR:

- i) Rated Output: 180 kVA (minimum) continuous rating at 0.8 PF at specified ambient conditions (Motor Loads)
- ii) Rated Voltage : 415 Volts
- iii) Phase : 3, (4 wire) i.e. neutral point has to be brought out to terminal box
- iv) Type : Brush less
- v) Frequency rated / cycle : 50 Hz
- vi) Rated power factor : 0.8 lagging
- vii) No. of Poles : 4
- viii) Class of insulation : Class F/H
- ix) RPM : 1500
- x) Phase sequence : UVW
- xi) Conform to IS: 4722,13364 part 2 with latest amendments.
- xii) Connection : Y (Star)
- xiii) Ambient : 50 °C max, RH 50% (max)
- xiv) Alternator Enclosure Protection: IP 23

- xv) Alternator Terminal Box Protection: IP 54
- xvi) Amplitude of vibration : Should be as per IS-12075: 2008.
- xvii) Excitation system : Brush less, self excited and self Regulated with solid state AVR mounted inside the control panel.
- xviii) Permissible voltage variation: +/-5 % at rated speed, load and power factor
- xix) Permissible frequency variation: +/- 3 % at rated load and power factor
- xx) Frame size : Bidder to confirm
- xxi) Unbalanced current carrying capacity: 20 % of FLC
- xxii) Short circuit current withstand capacity: 4 to 5 times FLC for 5 sec.
- xxiii) The brushless alternator shall be composed of 3 phase AC exciter with rotating diodes, surge suppressor, automatic voltage regulator with voltage adjuster potentiometer, main field windings and stator windings. PIV of exciter diodes must be minimum 6 times the maximum exciter armature operating voltage or 1200v whichever is higher. All windings should be made from electrolytic grade copper of high purity.
- xxiv) The alternator should be capable of sustaining a 10 % over load for one hour in any 12 hours operation.
- xxv) When the speed of engine is 1.2 times for two minutes, the alternator should be capable of withstanding it without any damage.
- xxvi) The alternator should be capable of continuous operation over a range of 110 % of rated voltage for 1 Hrs.
- xxvii) Automatic voltage regulation ± 0.5 % to ± 1.0 % from no load to full load.
- xxviii) Total harmonic distortion factor should be less than 3 % between phases at no load.
- xxix) The alternator terminal box should be suitable and should have sufficient space for terminating one no 4 core X 185 sq.mm, 1100V grade EPR insulated and PVC sheathed stranded Aluminium cable. Suitable size of cable gland should be fitted in the terminal box.
- xxx) 2 nos. of earth studs are to be provided on both sides of the alternator for earthing.
- xxxii) Lifting hooks are to be provided for lifting the alternator.
- xxxii) AVR should have under & over excitation protection features with LED display.
- xxxiii) Alternator windings and AVR should be suitable for ambient conditions mentioned in the enquiry.
- xxxiv) Alternator frame should be made from MS or Cast steel.

5.0 **WIRING SCHEME:**

5.1 Power Cable: Power from Alternator terminal to the MCCB installed in the control panel shall be routed through metallic conduits with proper glands & lugs. Size of the cable shall

be 3.5 core X 185 sq.mm, 1100v grade, PVC insulated and PVC sheathed, armoured, stranded Aluminium cable.

5.2 Control cables: Control cables shall be minimum 1100 V grade 2.5 sq. mm stranded copper cables with suitable lugs.

5.3 ENCLOSURE ILLUMINATION AND POWER OUTLET:

Enclosure will have two nos. of suitable type of screw cap CFL lamp luminaries mounted on inside enclosure wall and wired with heavy duty PVC insulated and PVC sheathed armoured, stranded copper cable approved by IS inside a suitable conduit pipe. Lights shall be switched from individual MCB, 6amp, C curve, mounted on control panel cover & have back-up HRC fuse and neutral link of 16 amp rating.

One no. industrial type metallic plug socket of 15 amps rating with 15 amp SP MCB as switch shall be installed preferably at the control panel.

Make: Philips for luminaire & Legrand/ Merlin-Gerin/HPL for MCB/ Metallic plug socket.

5.4 Heavy duty Single Compression Cable Glands shall be provided at all cable entries for power and control cables. Cable Glands shall also be provided for the outgoing power cable. All cable glands to be supplied by the party. Make: Baliga/ GMI/Dowells.

5.5 All power and control cable terminal ends will have suitable heavy duty crimping lugs. All lugs supplied by the party. Make: Dowells.

5.6 Suitable provision shall be made for safe routing of output cable from panel to outside of the unit.

6.0 **EARTHING**:

6.1 The earthing scheme for the unit should be as per IS-3043.

6.2 Earth terminals shall be provided for the Alternator (2 nos.) & also for the DG set enclosure (2 nos).

6.3 Two nos. 50x6mm GI straps shall be suitably fixed inside the unit near the floor. Strap galvanisation thickness should be min. 85 micron.

6.4 Each of the Alternator earth terminals, DG set enclosure earth terminals, control panel earth terminals shall be connected with two nos. separate cables to both the straps with independent connections at separate points.

6.5 The neutral of the alternator shall be earthed separately into two separate earth electrode / earth pits.

6.6 Suitable provision is required in the panel base plate for safe entry power cables.

6.7 Earthing straps shall extend upto the back side of the enclosure and each strap will have one no. of zinc coated terminal stud of 10mm dia provided at end of the straps for connection to system earth.

6.8 A total of 12 (Twelve) nos. chemical type earth-electrodes (6 for each DG set) of standard length with 12 nos. 8 mtrs. Long single core 25 sq. mm. Copper cable with lugs for earthing purpose be supplied with the DG sets.

7.0 Note to Bidder:

i) The price quoted by the bidder shall be inclusive of the following:

~ Firm Cost of 3 Nos. DG sets

- 1 No. Power Distribution Board (inclusive of all taxes applicable)

~ Lump sum testing & commissioning cost for 3 Nos. of DG sets inclusive of Loading, Transportation from works to OIL& site as mentioned, unloading at site, commissioning works at site (inclusive of all taxes applicable / duties).

ii) Alternator, control panel & all other major components shall be guaranteed for period of 12 months from the date of commissioning against any manufacturing defects.

iii) The bidder must give assurance that after sales service in respect of engine, alternator and other equipment will be provided by their respective OEM or authorised dealers.

iv) The bidder must give assurance of rendering 2 (two) nos free services for the DG sets (first after 6 months of installation & commissioning & the second after 1 (one) year of installation & commissioning)

v) The bidder must undertake and confirm from OEMs that the equipment to be supplied are not going to be obsolete for next 10 years and provision for supplying spares of the equipment to be continued.

vi) Bidder shall submit the following to OIL on placement of order and shall proceed for manufacturing only after getting due approval from OIL:

“ Structural drawings for the skid & the acoustic enclosure

“ Dimensional, schematic, GA, component layout and cable / wiring layout.

vii) Offered alternator should be of proven design / model.

viii) Bidder shall submit the following information regarding alternator along with the offer failing which offer is liable for rejection:

“ Frame size

“ Dimensional drawing

“ Technical datasheet

“ Catalogue

ix) Guaranty Certificate shall be submitted at the time of delivery of alternator and control panel.

x) Test certificate of alternators shall be furnished at the time of pre-dispatch inspection of the DG sets.

xi) Packing should be adequate to avoid transit damage.

xii) Two sets of control circuit diagram of control panel and commissioning cum maintenance manual for alternator should be provided along with the material.

xiii) Any items/ points not included in the specifications but necessary for efficient control and operation of the alternator shall be provided & cost be included in the bid.

xiv) The bidder has to supply 01 set Automatic voltage regulator unit

8.0 **SKID AND COUPLING:**

The engine and alternator are to be coupled and both mounted on a skid fabricated from the channel as per design requirement as a base frame fitted with special vibration isolators

for making the DG set vibration free. The Dg set with acoustic enclosure should be placed and fixed on the suitably designed skid. Skid should have two studs for earthing, one in each end of the skid.

9.0 **ACOUSTIC ENCLOSURE:**

i) The engine and alternator are to be covered by acoustic enclosure. Acoustic enclosure shall be factory built and modular in construction with acoustically treated panels comprising of 50mm thick glass wool / fire retardant PU foam, embedded in absorptive acoustic perforated panels/sheets.

ii) Acoustic enclosure shall be designed to facilitate easy maintenance/repair of engine and alternator at site.

iii) The acoustic enclosure should be designed and manufactured to offer attenuation to a maximum of 75 dBA at 1 metre. The glass wool / fire retardant PU foam is to be further covered with fibreglass cloth and perforated powder coated sheet.

iv) The acoustic enclosure shall have following features

a) Locking arrangement.

b) Lifting arrangement

c) Draining arrangement for fuel and lube-oil.

d) Air breather.

e) Engine start button

f) Emergency stop button

g) Panel meter viewing window (unbreakable)

h) The bidder must produce valid Certificate from agencies authorised by Central Pollution Control Board for acoustic enclosure as per latest amendments under the latest Environment (Protection) Act. The Bidder should ensure in their offer that the Certificate from agencies authorised by Central Pollution Control Board for acoustic enclosure would be produced during inspection and provide the same at the time of delivery of gen-set.

i) Specially designed attenuators should be provided to control sound at air entry to and exit from the enclosure. There should be carefully designed inlet and outlet baffles/attenuators with corresponding weather louvres and bird mesh allowing sufficient air flow for the equipment to operate even under harsh operating conditions, whilst maintaining specified noise levels.

j) The enclosure should be fabricated out of CRCA sheet of 12 / 14 SWG, corrosion resistant steel sheet, duly surface treated and lined with sound absorbing materials retained

by powder coated perforated zinc sheet. The powder coating should be pure polyester based (both inside and outside) and all nuts and bolts are to be galvanized.

k) Readings of indicating meters must be visible from outside. The door should be lined with high quality EPDM gaskets to avoid leakage of sound.

l) The canopy must be finished with synthetic enamel paint and aluminium sprayed silencers.

m) Adequate ventilation for air requirement for combustion and cooling is to be ensured.

n) There should be provision for emergency shut-down of engine from outside of engine.

o) Enclosure to be provided with internal wiring for illumination and fittings for 2 nos. CFL light fittings.

The complete General Assembly (GA) drawing of the gensets inside hut with acoustic enclosure should be forwarded along with the offer for final approval once order is placed.

10.0 OPERATING CONDITIONS AT SITE:

The engine / alternator should be suitable for operation at the following site conditions:

" Ambient temperature (max.) : 50 degree Celsius

" Ambient temperature (min.) : 5 degree Celsius

" Max. relative humidity at 50 degree Celsius : 50 %

" Max. relative humidity at 5 degree Celsius : 5 %

" Altitude : 300 metres above sea level

" Average annual rainfall : 35 centimetres

11.0 PARTS LIST, INSTRUCTION MANUAL & DRAWINGS:

a) Supplier shall provide 2 sets of spare parts list, operator's instruction manual and workshop maintenance manual covering all the items along with each generating set.

b) Supplier shall provide one set of Technical Literature of Engine, GA drawing showing installation details of the generating set. Wiring diagram for the control panel and wiring drawing between the alternator and control panel shall be provided.

12.0 INSPECTION AND TESTS:

- a) Stage inspection during the skid fabrication would be carried out at the manufacturer's works at OIL's cost.
- b) Pre-dispatch inspection of the set shall be carried out by OIL's representative at the works of manufacturer at OIL's cost.
- c) Full load testing of the generator sets for output and performance of engine & alternator shall be carried out in presence of OIL's representatives.
- d) Supplier/manufacturer shall intimate OIL 10(ten) days in advance for inspection.
- e) Despatch clearance will not be given unless OIL is fully satisfied as regards manufacturing and successful testing.

13.0 COMMISSIONING of the DG sets at site shall cover:

- " Commissioning of the 180 KVA DG Set shall be carried out by the successful bidder at Baghwala in the district of Jaisalmer of Rajasthan (India) in the presence of OIL representatives.
- " Services of qualified and competent personnel from equipment manufacturer are essential during commissioning of the DG sets.
- " All the required earthing works with supplied electrodes & earthing strips / cable
- " Pre-commissioning test of the DG set complete at site
- " Power at 415 V AC shall be made available at the 400 Amp MCCB
- " Fuel for testing shall be supplied by OIL
- " Outgoing power cable from DG set to load shall be under OIL's scope
- " Once commissioned, the generating sets will be subjected to a trial run on available load at site for a minimum period of 24 hrs continuously and on satisfactory performance shall be subsequently handed over to OIL.

14.0 TEST CERTIFICATES:

Detailed records and certificates of the foregoing tests should be submitted to us. The certificates / records shall be supplied in quadruplicate and those for electrical equipment shall be endorsed- "suitable for use in the climatic conditions specified".

Any items/ points not included in the specifications but necessary for efficient control and operation of the alternator shall be stated by the bidder.

15.0 DOCUMENTATION:

2 Sets of the following documents / drawings should be supplied with the generating set :

- i) GA Drawing, O & M manual of diesel engine and alternator
- ii) Spare parts catalogue of diesel engine and alternator.
- iii) Test certificate of diesel engine
- iv) Test certificate of alternator

16.0 POWER DISTRIBUTION BOARD FOR DG SET

SCOPE:

Design, fabrication, loading, transportation, unloading, installation, testing & commissioning of 1 (One) no. 415V, 4 Wire stand alone L.T. Distribution board with Change over switch & MCCBs for 1(one) incomer & 4 (Four) feeders complete with indicating lamps & meters for outdoor use.

Note: The distribution board will not be installed permanently at one place. It shall be taken to use at different locations along with the DG sets.

Construction:

The panel shall be metal-enclosed, free-standing, compartmentalized, modular type suitable for outdoor installation. The panel shall be dust and vermin proof and the enclosure shall provide a degree of protection of not less than IP-52.

The panels shall be fabricated out of 2 mm cold rolled steel plates & properly supported using angles & channels. The compartments shall be divided into convenient continuous line. The panel as a unit shall be mounted on a base frame (of 2.5 feet high) made out of suitable structure, preferably ISMC Channels. The base of the base frame shall be suitably designed for stability of the panel for free standing.

The distribution board shall be fully compartmentalised with double doors at the front with canopy on the top for protection against different weather conditions.

The distribution board shall comprise of the following:

Sl. No.	Item	Qty	Features required
i)	415 V, 400 A, 4 pole Change over switch	1	
ii)	415 V, 400 A, 4 pole, 25 kA MCCB as Incomer	1	<ul style="list-style-type: none">• 3-phase power supply indication• Ammeter & Voltmeter with ASS & VSS• O/C, S/C, Earth fault & Earth leakage protection• Status indications (ON, OFF, Trip)
iii)	415 V, 200 A, 4 pole, 25 kA MCCB as Feeders	2	<ul style="list-style-type: none">• O/C, S/C, Earth fault & Earth leakage protection• Status indications (ON, OFF, Trip)
iv)	415 V, 100 A, 4 pole, 25 kA MCCB as	2	<ul style="list-style-type: none">• O/C, S/C, Earth fault & Earth leakage protection• Status indications (ON, OFF, Trip)

	Feeders		
v)	Suitable Busbar, busbar chamber & other accessories like Insulating busbar supports, Gland plates, cable supports inside the cable alley chambers, shrouded insulating barrier plates etc.as required		

Cable entries for all power cables (both incomers & outgoing feeders) & if any must be at the bottom of the panel with suitable removable gland plates.

The cable alley chamber shall have suitable supporting arrangement for holding the cables in place avoiding weight / torque on the cable terminations.

The metallic separators between two vertical chambers shall be of 14 SWG cold rolled steel plates & shall be removable type screwed to the lugs projecting from the main body / structure of the panel. Each chamber shall be provided with a hinged type door opening away from the cable alley & shall be provided with black flower type thumb screw which shall ensure tight closing. The edges of the doors shall be provided with a neoprene rubber gasket to make the compartment dust-proof. All retaining catches, screws & bolts for doors & covers shall be cadmium plated.

Compartment door shall be inter-locked with the switch unit in such a way that the door cannot be opened when the feeder is ON.

Painting shall be done by surface coating comprising pre-treatment (seven-tank treatment), Electrostatic Powder Spraying & curing. The surfaces to be coated shall be chemically derusted & degreased, Zinc Phosphatised & then Passivated after proper drying subjected to spraying of powder. (All panels shall undergo 7 tank pre-treatment procedures strictly). All the panels shall be coated using Siemens Grey shade (RAL 7032).

Suitable inscription plates, Danger / caution boards shall be provided at appropriate locations.

Special non-deterioration Neoprene Rubber gaskets between all joints shall be provided.

Earthing:

Suitable earthing strip shall be provided inside the distribution board having earthing stud terminals (2 nos. outside the board) with suitable nuts, washers etc. for connection to ground electrodes.

MCCBs:

The MCCBs shall comply with the requirement of IS 13947. MCCBs shall be provided with spring assisted quick make quick break manually operated trip free mechanism MCCBs shall be provided with tripping device with inverse time characteristics for short circuit protection.

MCCB operating handle ON and OFF position shall be displayed and the operating handle shall be mounted on the door of the compartment housing MCCB.

MCCB shall be provided with at least 1NO + 1NC Aux contacts as spare.

List of acceptable makes of material/components:

- Changeover switch - GE / SIEMENS / LEGRAND / MERLIN GERIN / SCHNEIDER / ABB / HAVELS
- MCCBs - GE / SIEMENS / LEGRAND / MERLIN GERIN /

- Meters
- SCHNEIDER / ABB / HAVELS
- AE / KAPPA / SECURE

BB. BID REJECTION CRITERIA (BRC):

A) TECHNICAL:

The bids must conform to the specifications and terms and conditions given in this enquiry. Bid shall be rejected or will be considered as non-responsive in case the items(s) offered do not conform to the following requirement.

i) The offered engine should be water cooled, vertical in-line, four stroke, diesel engine having in-line fuel pump, mechanical/electronic governing system capable of developing horsepower not less than 230 BHP to drive an alternator of 180 KVA when running at 1500 rpm at site conditions.

ii) The offered engine must be certified by agencies authorised by central pollution control board (CPCB) for type approval and conformity of production tests for emission/noise level of engines as per latest amendments under the environment (Protection) Act, 1986.

iii) The acoustic enclosure for generating set must be designed and manufactured in compliance with central pollution control board (CPCB) norms and certified by agencies authorised by CPCB.

iv) The alternator must be of brushless type and developing minimum 180 KVA.

v) The DG sets (engine, alternator) must be guaranteed for a minimum period of 12 months from the date of commissioning of the sets at site.

B) OTHER THAN TECHNICAL:

i) Bidder should be one of the following:

~ Either Original Equipment Manufacturer (OEM) of both engine and alternator or at least OEM of the engine.

“ Authorized dealer of the OEM for the complete DG set.

“ Authorized assembler of the DG set, whereby they are authorised by both the engine manufacturer and the alternator manufacturer or at least the engine manufacturer.

ii) Documentary evidence of being authorized dealer or authorized assembler (for at least the last 5 years) must be provided along with the quotation failing which their offer will be rejected.

iii) Bidders should have the experience of successfully completing at least 10 (ten) orders of the offered make in the last 5 (Five) years before the bid closing date of this enquiry against supply, installation, commissioning and testing of Diesel Engine driven generating sets of capacity 180 KVA or above either in PSUs, state/central Govt. or any other reputed company. Documentary evidence in this regard must be provided along with the quotation failing which their offer will be rejected.

CC. BID EVALUATION CRITERIA (BEC)

1.0 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.

2.0 For evaluation of bids, Supply, transportation, loading, unloading, testing and commissioning of three (03) nos. of DG Sets & one (01) no. Distribution Board will be considered. Comparison of offers will be done on Total F.O.R Oil India Limited **Baghewala Oil Field Area in Jaisalmer District, Rajasthan** district (within 300 KMs approx. Road Distance from Jodhpur, Rajasthan) basis as under:

- (A) Total Material Cost for 3 Nos of Gen sets + 1 no. Distribution Board
- (B) Packing and Forwarding Charges,
- (C) Total Ex-works value, (A + B) above
- (D) Excise Duty as applicable on (C) above (Please indicate applicable rate of Tax)
- (E) Sales Tax as applicable on (C + D) above (Please indicate applicable rate of Tax)
- (F) Total FOR Manufacturing station Value, (C + D +E) above
- (G) Road Transportation charges including loading and unloading of Gen Sets at DND-GPC
- (H) Insurance charges

- (I) Commissioning Charges including service tax
- (J) Inspection/Testing Charges, if any
- (K) Total value (F+ G + H+ I + J)

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

However, payment of applicable Rajasthan Entry Tax on purchase value shall be to OIL's Account.

4.0 Installation /Commissioning charges should be quoted separately which shall be considered for evaluation of offers. These charges should include amongst others to and from fares, boarding /lodging and other expenses of the Commissioning Engineers during their stay in Rajasthan. All personnel, Income and Service Tax etc. towards the service provided by the supplier shall be borne by the supplier and will be deducted at source. Bidder should confirm about installation/commissioning in their Bid. Inspection/Testing charges, if any, shall be quoted separately which shall be considered for evaluation of offers.

5.0 If there is any discrepancy between the unit price and the total price, the unit price will prevail and the total price shall be corrected. Similarly, if there is any discrepancy between words and figure, the amount in words shall prevail and will be adopted for evaluation.

6.0 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 total must be received on or before the deadline given by the company, failing which the offer will be summarily rejected.

DD. STANDARD NOTES:

1.0 Materials to be supplied hereunder shall be new, unused, of recent make, of best quality & workmanship and shall be guaranteed by the seller against defects arising from faulty materials, workmanship or design. Defective goods / materials or parts notified by OIL to the seller shall be replaced immediately by the supplier at the supplier's expense at no extra cost to OIL.

2.0 Bidders are to quote for Unit Material value, Packing/Forwarding Charges, Taxes & Duties as applicable, Transportation, loading, unloading, testing and commissioning charges upto Oil India Limited @ **Baghewala Oil Field Area in Jaisalmer District, Rajasthan** (within 300 KMs approx. Road Distance from Jodhpur, Rajasthan), Insurance Charges, Payment Terms, **Best Delivery Period**, Net. & Gross Weight etc. in their offer.

3.0 For order with F.O.R. Destination term, 100% payment against dispatch document will not be entertained. In this regards please refer payment terms in ANNEXURE - MM/LOCAL/E-01/2005. Bidders are advised to take note of this while mentioning payment term.

4.0 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.

5.0 Other terms and conditions of the enquiry shall be as per General Terms and Conditions for LOCAL E-Tender vide MM/LOCAL/E-01/2005. However, if any of the Clauses of this tender document contradict the Clauses of the booklet MM/LOCAL/E-01/2005 elsewhere, those in this tender document shall prevail.

ANNEXURE:I

TECHNICAL CHECK LIST:

The following check list must be completed and returned with the offer. Please ensure that all these points are covered in your offer. These will ensure proper evaluation at our end.

Please tick mark Yes or No to the following question, in the right hand column

Sl. No.	ITEM	YES / NO
1	WHETHER QUOTED AS OEM OF ENGINE ?	
2	WHETHER QUOTED AS OEM OF ENGINE & ALTERNATOR ?	
3	DOCUMENTARY EVIDENCES SUBMITTED FOR SL. NO. 1 OR 2	

	AS THE CASE MAY BE ?	
4	WHETHER QUOTED AS AUTHORISED DEALER OF OEM FOR COMPLETE DG SET?	
5	DOCUMENTARY EVIDENCES SUBMITTED FOR SL. NO. 4 ?	
6	WHETHER QUOTED AS OEM APPROVED ASSEMBLER ?	
7	DOCUMENTARY EVIDENCES SUBMITTED FOR SL. NO. 6 ?	
8	WHETHER SEPARATELY HIGHLIGHTED ANY DEVIATION FROM THE TECHNICAL SPECIFICATION? (ANY DEVIATION TO BE HIGHLIGHTED SEPARATELY)	
9	WHETHER DETAILED SPECIFICATIONS OF ENGINE, ALTERNATOR WITH MANUFACTURER'S TECHNICAL LITERATURE / CATALOGUE ENCLOSED WITH THE OFFER?	
10	WHETHER TYPE TEST CERTIFICATES FOR ENGINE & ALTERNATOR WILL BE MADE AVAILABLE ALONGWITH SUPPLY ?	
11	WHETHER SPARE PARTS FOR 10 YEARS SHALL BE AVAILABLE?	
12	WHETHER INDICATIVE POWER AND WIRING DIAGRAM OF ALTERNATOR, CONTROL PANEL SUBMITTED?	
13	WHETHER OFFERED ENGINE IS RATED FOR CONTINUOUS DUTY?	
14	WHETHER THE ENGINE IS WATER COOLED, VERTICAL IN-LINE FOUR STROKE, DIESEL ENGINE HAVING IN LINE FUEL PUMP AND GOVERNOR CLASS -A1 ?	
15	WHETHER THE DOCUMENTARY EVIDENCE SUBMITTED BY THE BIDDER OF SUPPLYING, INSTALLING & COMMISSIONING AT LEAST 10 NOS OF DG SETS WITHIN LAST 5 YEARS. ?	
16	WHETHER GENERAL ASSEMBLY DRAWING OF GENERATING SET SUBMITTED?	
17	WHETHER THE OFFERED ENGINE CONFORM EITHER TO ISO3046 / IS 10002 SPECIFICATION	