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ANNEXURE-I

Tender No. & Date : JID9444L16 Dated 03.12.2015

Bidding Type : Single Bid (Composite Bid)

Performance Security : Applicable (@10% of the PO value)

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

TECHNICAL SPECIFICATIONS WITH QUANTITY:

SL. NO. MAT. CODE	MATERIAL DESCRIPTION	QUANTITY	UOM
10 0C000242	SUPPLY OF 62.5 KVA DIESEL ENGINE DRIVEN GENERATING SET WITH ACOUSTIC ENCLOSURE & MOUNTED ON A SKID AT OIL'S GUEST HOUSE, JODHPUR	1	NO
20	INSTALLATION & COMMISSIONING OF DG SETS UNDER SL. NO. 10 ABOVE	1	AU

SUPPLY, TRANSPORTATION, LOADING-UNLOADING, TESTING AND COMMISSIONING OF ONE NUMBER DIESEL ENGINE DRIVEN GENERATING SET CAPABLE OF DEVELOPING MINIMUM 62.5 KVA WITH ACOUSTIC ENCLOSURE & MOUNTED ON A SKID

Water cooled D.G. Set capable of developing minimum 62.5 KVA (50.4 KW) at 3 phase, 0.8 power factor, 415 volt, 50 Hz and running at 1500 rpm under NTP conditions as per IS: 10,002 or ISO: 3046 or latest. The generating set should have acoustic enclosure & mounted on a skid. The DG set shall have to meet the following specifications :

1.0 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 10 degree Celsius in winter to up to 47 degree Celsius in summer & capable of developing minimum 80 HP at its rated speed for a period of 1 hour in any period of 12 hours continuous running without undue heating or

any other mechanical trouble. The engine should rotate anti clockwise while looking from the flywheel end and should conform to IS: 10,002 or ISO: 3046 or latest.

The engine should comprise the following standard accessories such as

1.01 Flywheel
1.02 Fuel and lubricating oil filter
1.03 Heavy duty air intake filters.
1.04 Lubricating oil pressure gauge
1.05 Tachometer
1.06 Standard set of tools with tool-box
1.07 12 volt of electric starting equipment (preferably LUCAS TVS make or equivalent)fitted to the engine and comprising of battery (180 AH), starter, charging alternator and starting ring gear fitted to the flywheel.
1.08 Heavy Duty Radiator capable of keeping the engine in good running condition at atmospheric temperatures mentioned earlier.
1.09 Fuel tank of capacity to run the gen-set continuously for 24 hours. Diesel filling from outside with theft proof arrangement.
1.10 Guard for all moving parts of the engine such as W/pump belt, charging alternator belt, radiator fan etc.
1.11. Residential type Exhaust Silencer with spark arrestor(muffler) to be provided inside the canopy but in a separate chamber.
1.12 ENGINE CONTROL PANEL: The engine control panel shall be installed on the body of the enclosure, operable from outside.
It shall comprise of the following but not limited to:
a) Engine control switch for START, RUN, OFF.
b) Engine START switch / push button.
c) Emergency SHUT OFF / STOP switch / push button.
1.13 ENGINE MONITORING PANEL: It shall be installed at the body of the acoustic enclosure, covered by a suitable transparent toughened glass. The engine control panel shall comprise of the following but not limited to:
a) Digital / Analog tachometer (for rpm), running hour's counter & start counter
b) Digital / Analog Engine oil pressure & temperature gauges, Water temperature gauge
c) 1 No. Hour meter to indicate engine run hours (AEL / L&T make)

1.14. Any items/points not included in the specifications but necessary for operation shall be stated by the bidder.
1.15. Engine safety controls (High water temp, low lube oil pressure and over speed)to be provided to prevent any damage to the engine.

Fire extinguisher is to be provided inside the canopy.

Bidder has to justify the selection of particular engine along with the H.P

2.0 ELECTRICAL :

Brushless type alternator of 62.5KVA rating (minimum) when coupled to water cooled engine will develop 62.5 KVA (minimum)at 3 phase, 0.8 power factor, 415 Volt when running at 1500 rpm under NTP conditions.

The alternator makes:

Amongst others the following makes of Alternators shall be supplied:
Kirloskar, NGEF, Crompton Greaves, stamford.

A. TECHNICAL SPECIFICATIONS OF ALTERNATOR:

1. Rated Output: 62.5 kVA (minimum)continuous rating at 0.8 PF at specified ambient conditions (Motor Loads)
2. Rated Voltage : 415 Volts
3. Phase : 3, (4 wire) i.e. neutral point has to be brought out to terminal box
4. Type : Brush less
5. Frequency rated / cycle : 50 Hz
6. Rated power factor : 0.8 lagging
7. No. of Poles : 4
8. Class of insulation : Class F/H
9. RPM : 1500
10. Phase sequence : UVW
11 Conform to IS:4722,13364 part 2 with latest amendments.
12. Rating : Continuous suitable for Motor loads.
13. Connection : Y (Star)
14. Ambient : 47 ºC max, RH 50% (max)
15. Alternator Enclosure Protection: IP 23
16. Alternator Terminal Box Protection: IP 54
17. Amplitude of vibration : Should be as per IS-12075: 2008.
18. Excitation system : Brush less, self excited and self Regulated with solid state AVR mounted inside the control panel.
19. Mounting : Foot mounted
20 Permissible voltage variation: +/-5 % at rated speed, load and power factor
21. Permissible frequency variation: +/- 3 % at rated load and power factor
22. Frame size : Bidder to confirm
23. Unbalanced current carrying capacity: 20 % of FLC
24. Short circuit current withstand capacity: 4 to 5 times FLC for 5 sec.
25. The brushless alternator shall be composed of 3 phase AC exciter with rotating diodes, surge suppressor, static 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.
26. Voltage swing (Transient response) when rated load is suddenly switched on should be maximum 10 % with 0.2 to 0.7 sec (Recovery time).

27. The alternator should be capable of sustaining a 10 % over load for one hour in any 12 hours operation.

28. When the speed of engine is 1.2 times for two minutes, the alternator should be capable of withstanding it without any damage.

29. The alternator should be capable of continuous operation over a range of 110 % of rated voltage for 1 Hrs.

30. Automatic voltage regulation ± 0.5 % to ± 1.0 % from no load to full load.

31. Total harmonic distortion factor should be less than 3 % between phases at no load.

32. Alternator stator winding terminals are to be connected to 4 nos. of suitably r ated terminals supported on sheet molding compound (SMC) supports inside the alternator terminal box.

33. The alternator terminal box should be suitable and should have sufficient space for terminating one no 4 core X 25 sq.mm, 1000V grade EPR insulated and PVC sheathed stranded copper cable. Separate cable box shall be provided for supporting power cable. Suitable size of cable gland should be fitted in the terminal box. Cable gland and entry hole shall also be required for AVR cables as AVR shall be mounted inside the control panel.

34. 2 nos. of earth studs are to be provided on both sides of the alternator for earthing.
35. Lifting hooks are to be provided for lifting the alternator.
36. AVR should have under speed, over excitation protection features with LED display.
37. Alternator windings and AVR should be suitable for ambient conditions mentioned in the enquiry.
38. Bidder to mention efficiency of the alternator at 25 %,50 %, 80 % load at 0.8 pf.
39. Alternator frame should be made from MS or Cast steel.

B. SPECIFICATION OF CONTROL PANEL:

The DG set control panel with hinged door having neoprene rubber gaskets shall be incorporated & installed suitably on the body of the acoustic enclosure with sheet steel clad. It shall have to be vibration proof.
At the bottom of the control panel detachable gland plates with cable glands for power & control cables' entry shall be provided.

The detail description of the panel is as described below:

1. AVR of the alternator shall be mounted inside the control panel with vibration proof supports.

2. INSTRUMENTS AND SWITCHES: (Mounted on front hinged door)

i) 1 No. M.C. Voltmeter, 1.0% accuracy, 96 sq. mm , 0 # 500 V (AEL/L&T make)
ii) 1 No. Voltmeter selector switch (Kaycee/ Salzer / L&T make)
iii)1 No. M.C Ammeter, 1.0% accuracy, 96 sq. mm, 0-75 Amps, C.T. operated (AEL/L&T make)
iv) 1 No. Ammeter selector switch (Kaycee/ Salzer / L&T make)
v) 1 No. Digital frequency meter(AEL/ Rishab Instruments make)
vi) 1 No. KW meter, 1.0% accuracy AEL/L&T make)
vii) 1 KWH meter integrating, electronic type suitable for balanced and unbalanced loads, C.T. operated, 3 ph, 4 wire. (Alsthom/L&T make)

viii) The control panel should have following indication lamps mounted on panel front door. All lamps shall be of LED type, 240v AC having long life and low energy consumption. Binay Make.

a) Trip on earth fault.
b) Set running.
c) Battery charging current

3. MAIN COMPONENTS : (Mounted Inside the Panel)

i) 1 No. 150 Amps, 4 pole, MCCB, 25 KA breaking, with inbuilt electronic type adjustable overload & short circuit protection. 240v AC shunt trip coil is required for external tripping. Overload should be adjustable from 50% to 100% and short circuit setting should be also adjustable from 1.5% to 5%. Make: Legrand/ Merlin-Gerin/ABB.
MCCB should trip on the following faults

a) Earth leakage from external source.
b) Over load & short circuit.

ii) 1No. CBCT along with Earth leakage relay for protection against earth leakage should be provided. Relay adjustable settings: 0.1 # 0.3- 1.0-3.0-10.0 Amp & 0.06-0.1-0.3-1.0# 5.0 Sec in steps. In case of earth leakage fault the relay should trip the MCCB through shunt trip coil. The CBCT (ID 35mm) size should be such that relay should not trip during shortcircuit due to saturation. Similar to Cat No. (26092+ 26091) of Legrand. (Make GEPC /Legrand/ Merlin Gerin).

iii) CTs with suitable ratio, capacity & nos. shall be provided for metering & control. (AEL / Kappa make)

iv) Auxiliary Relay / Contactor 240 AC with some spare contacts. Quantity should be as per the control circuit requirement. (L&T /Siemens/ Schnieder make)

v) HRC instrument fuse holders NS type phenol moulded with suitable fuses & links for different circuits. Separate fuses and neutral links should be provided for control circuit indicating system lamps, instruments, enclosure illumination and tripping circuit (GEPC make).

vi) Terminal strips for terminating the AVR cable from Alternator.

C. WIRING SCHEME:

i) Control system will work on 240v AC. Control panel inside wiring shall be done with 2.5 sqmm, flexible copper, 1100v grade PVC insulated wires conforming to relevent BIS. All wiring will have copper lugs & terminal blocks as required. Wiring for lighting circuit MCB, power outlet and wiring for CT will be done with 2.5 sqmm, flexible copper, 1100v grade PVC insulated wires as per BIS & have ring type lugs. Colour code for wires shall be followed. Make: Finolex/ Havells.

ii) Output from the Alternator terminal box should be connected to control panel input with heavy duty 4X 25 sq.mm, 1100v grade, 3.5 core PVC insulated and PVC sheathed, armoured, stranded copper cable approved by IS-1554. Cable to be supplied & connected by the bidder using copper lugs. Make: NICCO, CCI, Finolex, Havells.

iii) AVR shall also be wired from alternator terminal box to control panel by the party using heavy duty PVC insulated and PVC sheathed, 1100 v grade armoured, stranded, ISI approved copper cable of suitable size. Cable to be supplied and connected by the bidder using copper lugs.

Make: NICCO, CCI, Finolex, Havells.

iv) 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.

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

vi) Alternator to panel power cable, AVR cable shall be protected inside a conduit pipe in their run from unit to control panel to avoid any damage.

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

D. ENCLOSURE ILLUMINATION AND POWER OUTLET:

Enclosure will have two nos. of suitable type of screw cap CFL lamp luminaries mounted on enclosure wall and wired with heavy duty PVC insulated and PVC sheathed armored, stranded copper cable approved by IS inside a suitable conduit pipe. Light will 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 10amp rating with 10 amp SP MCB as switch should also be fed from lighting circuit fuse. The socket should be mounted on the enclosure side. Power for lighting circuit and socket outlet should be taken from the main bus through HRC fuses.
Make: Philips for luminaire & Legrand/ Merlin-Gerin for MCB/ Metallic plug socket.

E. EARTHING:

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

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

3.Two nos. 25x5mm GI straps shall be suitably fixed inside the unit near the floor. Strap galvanisation thickness should be min. 85 micron and as per IS. Alternator earth terminals, DG set enclosure earth terminals, control panel earth terminals shall each be connected with two nos. separate cables to both the straps with independent connections at separate points. The neutral of the alternator will be earthed by connecting two nos. of earthing cables from neutral bus inside the panel to earth strap at two independent points. Suitable provision is required in the panel base plate for safe entry of neutral earth cable. Heavy duty PVC insulated, PVC sheathed, flexible, single core, IS approved copper cables of 25 sqmm size shall be used for each earth connection. The cables to be terminated with lugs and suitably protected against mechanical damage. Earth cable shall be protected to avoid any damage and to be run in galvanized, flexible MS conduit. Make: Finolex/ Havells for cable.

3. Both the 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. Two nos. of earthing cables of size & type mentioned in point no.2 above and individual length of 5.0 mtr shall be provided and connected to these two straps for external earthing. The free ends of these cables shall be crimped with heavy duty, tinned copper tubular lugs. Suitable opening shall be provided in the rear side of the unit to facilitate the entry of outgoing power cable and earth leads.

NOTES (Alternator and Control Panel):

i) The bidder shall submit all indicative power and control wiring diagram for offered alternator.
ii) Offered alternator should be of proven design / model.
iii) Bidder shall submit the following information regarding alternator along with the offer failing which offer is liable for rejection:
a) Frame size
b) Dimensional drawing
c) Technical datasheet
d) Catalogue
iv) Alternator and control panel are to be guaranteed for period of 12 months from the date of commissioning against any manufacturing defects.
v) Guaranty Certificate shall be submitted at the time of delivery of alternator and control panel.
vi) Test certificate of alternators shall be furnished at the time of delivery of alternator.
vii) Bidder shall submit the drawings (Dimensional, schematic, GA, component layout and wiring layout) of control panel to OIL on placement of order and shall proceed for manufacturing of the panel only after getting due approval from OIL.
viii) Packing should be adequate to avoid transit damage.
ix) Two sets of control circuit diagram of control panel and commissioning cum maintenance manual for alternator should be provided with soft copy along with the material.
x) 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.

F CHANGE OVER SWITCH (COS)

One no. wall mounted change over switch with suitable cable entry provisions & the following specifications shall have to be supplied & installed at site.

a) On load change over switch: 1 no.
415 Volts, 125 Amps, 3 phase (with neutral), 4 pole
Make: GEPC / L & T / Crompton Greaves / Siemens

Danger plates are to be provided on front and rear side of the panel.

3.0 SKID AND COUPLING:

The engine and alternator are to be coupled and both mounted on a skid fabricated from the channel (Size: 150 mm) as a base frame fitted with special vibration isolators for making the DG set vibration free. The (Canopy) base skid of the generating set along with the acoustic enclosure should be placed and fixed on a skid which should be fabricated from ISMB 200. Skid should have two studs for earthing, one in each end of the skid.

Layout drawing of canopy showing engine, alternator, control panel, change over switch, fuel tank etc and drawing of skid should be forwarded along with the offer.

4.0 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, 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 75dBA at 1 metre. Sound proofing is to be done with high quality rock wool/mineral wool conforming to IS: 8183 of 50mm thickness and 96 Kg/cubic metre density. The rockwool is to be further covered with fibreglass cloth and perforated powder coated sheet.
(iv)The acoustic enclosure should be modular type. This should be easy assembling/dismantling & not fixed type. It should have following features
a) Locking arrangement.
b) Lifting arrangement
c) Draining arrangement for fuel and lube-oil.
d) Air breather.
e) Emergency stop button
f) Panel meter viewing window (unbreakable)
(v) 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 genset.
(vi)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.
(vii) The enclosure should be fabricated out of CRCA sheet of 12 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 polyster based (both inside and outside) and all nuts and bolts are to ve galvanized.
(viii) Readings of indicating meters must be visible from outside. The door should be lined with high quality EPDM gaskets to avoid leakage of sound.
(ix)The canopy must be finished with synthetic enamel paint and aluminium sprayed silencers.
(x)Adequate ventilation for air requirement for combustion and cooling is to be ensured.
(xi) There should be provision for emergency shut-down of engine from outside of engine.
(xii) 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.

5.0 PRE-REQUISITES FOR BIDDER:

a) The bidder should be an OEM or authorised dealer of OEM for engine, alternator or reputed assembler authorised by OEM for Generating sets.

b) If the bidder is an OEM of engine/alternator or authorised dealer of engine/alternator, he must purchase the other items from OEM or authorized dealer of the other items. In that case bidder must provide the documentary evidence from the OEM or authorised dealer of other items from whom the purchase would be made along with the supply

c) If the bidder is an assembler of gensets, he must purchase all equipment from OEMs or authorised dealers. In that case the assembler must provide the documentary evidence from the OEMs or authorised dealers of equipment from whom the purchase would be made along with the supply

e) 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, stationed in or around Jodhpur, Rajasthan.

f) 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.

g) The price quoted by the bidder shall be inclusive of the complete DG set with all the accessories & spares as mentioned in the NIT alongwith transportation, loading, unloading, installtion & commissioning at Jodhpur and applicable taxes / duties.

6.0 OPERATING CONDITIONS AT SITE:

The engine / alternator should be suitable for operation at the following site conditions :
Engine room temperature (max.) : 50 degree Celsius
Engine room temperature (min.) : 5 degree Celsius
Max. relative humidity at 50 degree Celsius: 50 %
Max. relative humidity at 5 degree Celsius: 05 %
Altitude : 300 metres above sea level
Average annual rainfall : 35 centimetres

7.0 SPARE PARTS:

a) Spare Parts list for two years normal operation of the generating set shall be provided along with the offer.

b) Bidder should categorically confirm the availability of spares parts for minimum 10 years from the date of delivery of materials.

c) The bidder has to supply the following mandatory minimum electrical spares along with each gen set [Bidder may include additional items, if deemed necessary]:

i) Automatic voltage regulator unit (along with any other component used with AVR)- 01 set
ii) Standard (forward) diode for rotating rectifier assembly- 01 set

iii) Reverse diode for rotating rectifier assembly- 01 set
iv) Varistor/ surge protector -01 set

e) The bidder has to supply the following mandatory minimum spares for two years(e.g Fuel filter,Lub. oil filter, Air filter)operation for an average running of 2000hrs annualy.Bidder may include additional items, if deemed necessary.

8.0 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 (inclusive of float charger) and wiring drawing between the alternator and control panel shall be provided. Supplier shall provide all approved electrical drawings along with final drawings implemented during installation and commissioning.

9.0 INSPECTION AND TESTS:

a) The plant and equipment may be subjected for inspection during manufacture at OIL's discretion but such inspection shall not relieve the supplier of his responsibility to ensure that the equipment supplied is free from all manufacturing and other defects and conforms to correct specifications. Supplier will be notified in advance, if it is intended to inspect plant or materials.

b) Pre-dispatch inspection of the set shall be carried out by OIL's representative at the works of manufacturer. Full load testing of the generator sets for output and performance shall be carried out in presence of OIL's representatives to their satisfaction. Supplier/ manufacturer shall accordingly arrange for inspection and intimate OIL well in advance.

c) Despatch clearance will not be given unless OIL is fully satisfied as regards manufacturing to order specifications and successful testing.

10.0 INSTALLATION & COMMISSIONING
Installation and Commissioning of the 62.5 KVA DG Set shall be carried out by the successful bidder in the presence of OIL representatives at its Guest House at 21C Shastri Nagar, Jodhpur,Rajasthan (India). Services of qualified and competent personnel from equipment manufacturer are essential during installation and commissioning of the generating sets. Persons engaged for installation, testing and commissioning of the generating sets should have valid electrical license. A person who is authorized for supervision of all electrical works shall have supervisory license.
Once commissioned, the generating sets will be subjected to a trial run on available load for a minimum period of 24 hrs continuously and on satisfactory performance shall be subsequently handed over to OIL.

11.0 TEST CERTICICATES:

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".

12.0 PACKING:

The packing shall be sufficiently robust to withstand rough handling/ transit damage. Boxes/ packing cases containing electrical equipment shall be water # proof lined. Control panels in particular should be packed with sufficient care (with shock/ vibration proof lining) to prevent transit damage. Loose components shall be packed separately.

13.0 PERFORMANCE GUARANTEE: 10% of the ordered value shall be given as performance guarantee in the form of bank guarantee for a period of 12 months after commissioning or 18 months from the date of dispatch. The bank guarantee will be released after successful completion of guarantee period.

14.0 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 The price quoted by the bidder should be all inclusive of supply, transportaion to Jodhpur, loading-unloading, installation and commissioning of the complete generating set with accessories, inclusive of all taxes and levies.

16.0 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

17.0 <u>BID REJECTION CRITERIA (BRC)</u>

A. TECHNICAL

The bids must conform to the specifications and terms and conditions given in the 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, governing class-A1 capable of developing horsepower not less than 82 BHP to drive an alternator (62.5 KVA) when running at 1500 rpm at site conditions.

ii) The offered engine must be certified by agencies authorised by 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 62.5 kVA.

B. OTHER THAN TECHNICAL

i) The bidder should be an OEM or authorised dealer of OEM for engine, alternator or reputed assembler for Generating sets authorised by OEM.

ii) The engine should be of reputed make manufactured in India. Documentary evidence or a certificate from OEM of supplying 100 nos of such engines (or of higher capacity) for any application within last five years must be forwarded along with the offer

iii) Bidder should have the experience of supplying and successfully commissioning at least 20 nos of generating set with acoustic enclosure in last three years. Documentary evidence in this regard must be forwarded along with the offer.

18.0 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, erection, installation, testing and commissioning of one (1) no. of DG Set will be considered. Comparison of offers will be done on Total F.O.R Oil India Limited's Guest House, at C-21, Shastri Nagar, Jodhpur, Rajasthan basis as under:

(A) Total Material Cost for 1 No. of Gen set
(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 OIL's Guest House
(H) Insurance charges
(I) Installation/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.

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 fro 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.

19.0 STANDARD NOTES:

1.0 Items shall be brand new, unused & of prime quality. Bidders shall warrant (in the event of order) that the items will be free from all defects & fault in material, workmanship and manufacture and shall be in full conformity with the ordered specification. This clause shall be valid for 18 months from date of dispatch/shipment or 12 months from the date of after commissioning, whichever is earlier. The defective items, if any, rejected by OIL shall be replaced by the supplier on F.O.R. destination basis at their own expenses including payment of all taxes and duties. Bidders must confirm the same in their quotation

2.0 Validity of the offer should be 75 days from the date of bid opening. Bid with lesser validity will be rejected.

3.0 **Performance Security**: Successful bidder will be required to furnish a Performance Security @10% of the order value. For details about performance security submission, please refer Clause No. 10.0 of General Terms and Conditions vide MM/RP/GLOBAL/2011 (enclosed). The Performance Security must be valid for a period of for a period of 12 months after commissioning or 18 months from the date of dispatch. The bidder should confirm submission of the requisite Performance security (in the event of order) in their offer itself, failing which the offer will be rejected.

4.0 Quotation should be submitted in duplicate.

5.0 In the event you authorize your dealer/stockist/channel partner to quote on your behalf, the dealer/stockist/channel partner while submitting bid should mention on the body of the envelope that they are submitting bid on your behalf and a copy of Authorisation letter issued by you is also to be submitted alongwith the bid. In the authorisation letter, it is to be clearly mentioned that you are authorising your dealer/stockist/channel partner to quote on your behalf against the tender (Tender no should be clearly mentioned)

In the event the dealer/stockist/channel partner do not mention the name of their authorizing firm/enterprise on the body of the envelope and fail to submit Authorisation Letter, the offer shall be treated as unsolicited offer and will not be considered for opening.

The dealer/stockist/channel partner should take note of above while submitting bid on behalf of their authorizing firm/enterprise

6.0 Bidders are to quote for Unit Material value, Packing/Forwarding Charges, Taxes & Duties as applicable, Transportation, loading, unloading, erection, installation, testing and commissioning charges up to Oil India Limited's Guest House, at C-21, Shastri Nagar, Jodhpur, Rajasthan, Insurance Charges, Payment Terms, **Best Delivery Period**, Net. & Gross Weight etc. in their offer.

7.0 In the event of receipt of only a single offer against the tender within B.C. date, OIL reserves the right to extend the B.C. date as deemed fit by the Company. During the extended period, the bidders who have submitted the bids on or before the original B.C. date shall not be permitted to revise their quotation.

8.0 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/RP/GLOBAL/2011. Bidders are advised to take note of this while mentioning payment term.

9.0 Please consider bid closing time as at 15:00 hrs (IST). You are advised to ignore the timing of 13:00 hrs (IST), appearing in the covering page of the tender document.

10.0 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.

11.0 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.

12.0 Original signed offer should be submitted in sealed envelope. No offers should be sent by Telex, Cable, E-mail or Fax. Such offers will not be accepted.

13.0 Bids containing incorrect statement will be rejected.

14.0 Bids shall have no interlineations, erasures or overwriting except as necessary to correct the errors made by the bidder, in which case, such corrections shall be initiated by the person(s) signing the bid. Any bid not meeting this requirement shall be rejected.

15.0 The offer should reach within the Bid Closing Date & Time addressed to:
CHIEF MANAGER (M&C)
OIL INDIA LIMITED
RAJASTHAN PROJECT
M&C DEPARTMENT
02-A SARASWATI NAGAR, BASNI
DISTRICT SHOPPING CENTRE
JODHPUR - 342005,
RAJASTHAN
INDIA

16.0 Contact details of dealing officer:
KRISHNA MOHAN KUMAR
DY. MATERIALS MANAGER
PHONE- 0291-2729-473
EMAIL: km_kumar@oilindia.in

Other terms and conditions of the tender shall be as per General Terms and Conditions vide booklet MM/RP/GLOBAL/2011 (copy enclosed). However, if any of the Clauses of the tender stipulated above contradict the Clauses of the booklet MM/RP/GLOBAL/2011 elsewhere, those in this tender document shall prevail.

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ANNEXURE - AA

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 that your offer is properly evaluated. Please tick mark Yes or No. to the following question, in the right hand column

1. WHETHER QUOTED AS OEM OF ENGINE AND WHETHER DOCUMENTARY EVIDENCES SUBMITTED? YES/NO

2. WHETHER QUOTED AS OEM OF ALTERNATOR AND WHETHER DOCUMENTARY EVIDENCES SUBMITTED? YES/NO

3. WHETHER QUOTED AS AUTHORISED DEALER OF OEM (ENGINE/ ALTERNATOR) AND WHETHER DOCUMENTARY EVIDENCES SUBMITTED? YES/NO

4. WHETHER QUOTED AS OEM APPROVED ASSEMBLER? YES/NO

5. WHETHER SEPARATELY HIGHLIGHTED ANY DEVIATION FROM THE TECHNICAL SPCIFICATION? YES/NO

6. WHETHER DETAILED SPECIFICATIONS OF ENGINE, ALTERNATOR WITH MANUFACTURER'S TECHNICAL LITERATURE / CATALOGUE ENCLOSED WITH THE OFFER?

YES/NO

7.WHETHER TYPE APPROVAL AND CONFORMITY OF PRODUCTION TESTS CERTIFICATE OF ENGINE PROVIDED ALONG WITH THE OFFER?

YES/NO

7. WHETHER TEST CERTIFICATE OF ALTERNATOR & CONTROL PANEL WILL BE SUBMITED ALONGWITH THE SUPPLY ? YES/NO

9. WHETHER SPARE PARTS FOR 10 YEARS SHALL BE AVAILABLE?

YES/NO

10. WHETHER INDICATIVE POWER AND WIRING DIAGRAM OF ALTERNATOR, CONTROL PANEL SUBMITTED? YES/NO

11. WHETHER GENERAL ASSEMBLY DRAWING OF CONTROL PANEL SUBMITTED?

YES/NO

12. WHETHER CONFIRMED CONTROL PANEL DRAWING SHALL BE APPROVED BY OIL BEFORE MANUFACTURING IN THE EVENT OF PLACEMENT OF ORDER?

YES/NO

13. WHETHER OFFERED ENGINE IS RATED FOR CONTINUOUS DUTY?

YES/ NO

14. WHETHER THE ENGINE IS WATER COOLED, VERTICAL IN-LINE FOUR STROKE, DIESEL ENGINE HAVING IN LINE FUEL PUMP AND GOVERNOR CLASS -A1 YES/NO

15. WHETHER THE NOISE ATTENUATION SHALL BE MAXIMUM OF 75dBA ONE METER FROM ACOUSTIC ENCLOSURE WHEN THE GENERATING SET IN THE OPERATION? YES/NO

16. WHETHER THE OFFERED ENGINE CONFORM EITHER TO ISO3046 /IS 10002 SPECIFICATION YES/NO

17. WHETHER THE ENGINE IS OF REPUTED MAKE MANUFACTURED IN INDIA. YES/NO

18 WHETHER THE DOCUMENTARY EVIDENCE SUBMITED BY THE BIDDER OF THEIR OEM SUPPLYING 100 NOS OF SIMILAR ENGINES FOR ANY APPLICATION WITHIN LAST FIVE YEARS . YES/NO

19. WHETHER THE DOCUMENTARY EVIDENCE SUBMITED BY THE BIDDER OF SUPPLYING AT LEAST 20 NOS OF DG SETS WITHIN LAST THREE YEARS . YES/NO

20. WHETHER THE BIDDER CONFIRM THAT MANDATORY SPARES FOR BOTH ENGINE AND ALTERNATOR WILL BE SUPPLIED ALONGWITH THE ITEM YES/NO

21. WHETHER GENERAL ASSEMBLY DRAWING OF GENERATING SET SUBMITTED? YES/NO

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