OIL INDIA LIMITED
(A Govt. Of India Enterprise) Tel :033 2230 1657, 1658
4, India Exchange Place, Fax :91 33 2230 2596
Kolkata-700001 E-mail :oilcalmn@oilindia.in

Tender No. & Date : KID4252L17/03 23.03.2017

Bid Security Amount : INR 0.00 OR USD 0.00
(or equivalent Amount in any currency)

Bidding Type : Single Bid (Composite Bid)

Bid Closing On : 02.05.2017 at 14:00 hrs. (IST)
Bid Opening On : 02.05.2017 at 14:00 hrs. (IST)

Performance Guarantee : Applicable

OIL INDIA LIMITED invites Limited tenders for items detailed below:

Item No./ Mat. Code	Material Description	Quantity	UOM
10 0C000242	7.5KVA Silent DG Set Item Description is furnished as attachment with this tender vide annexure A-I.	3	NO
	INSTALL & COMM OF 7.5 KVADED GENSET		
20	INSTALL & COMM OF 7.5 KVADED GENSET	1	AU

Special Notes : 1. Guarantee / Warranty certificate for 18 months from date of despatch or 12 months from the date of receipt whichever is earlier will be required along with the supply.

2. Validity of offer: 75 days from the date of tender opening. Offer with validity less than 75 days will be rejected.

3. PAYMENT TERMS : 70% payment will be made against supply of materials and balance 30% after satisfactory commissioning at site along with the installation & commissioning charges after adjusting liquidated damages, if any. Payment towards training (if any) will be released after successful completion of training.

4. PERFORMANCE GUARANTEE:

Performance Guarantee is applicable against this tender. 10% of the ordered value shall be given as performance guarantee in the form of bank guarantee and shall be valid for 90 days beyond applicable warranty / guarantee / defect liability period (if any). Bidders should undertake in their bid to submit Performance Security as stated above.

5. Special terms and condition As per the Attached Annexure A- I.

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Tender Date : **23.03.2017**
Bid Closing On : **02.05.2017 at 14:00 hrs.(IST)**
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Tender issued to following parties only:

Slno	V_Code	Vendor Name	City/Country
1	200176	INDUSTRIAL TRADE & AGENCIES	GUWAHATI
2	200211	STEEL & INDUSTRIAL STORES	ASSAM
3	200243	SHEW MACHINERY STORES	TINSUKIA
4	200392	RAVI BROTHERS	GUWAHATI
5	200591	BERRY GENERATORS PVT LTD	JALANDHAR
6	200662	DASSANI ELECTRA (P) LTD	KOLKATA
7	200854	JAKSON ENGINEERS LTD	NOIDA
8	200856	JEEVAN DIESELS	KOLKATA
9	202039	SAURAV AUTO PRIVATE LIMITED	GUWAHATI
10	202745	WATERTECH ENGINEERS PVT. LTD.	KOLKATA
11	202941	SACHIN SALES & SERVICE PVT LTD,	GUWAHATI
12	203032	DATRE CORPORATION LTD.	KOLKATA
13	203033	RHINO INDUSTRIAL EQUIPMENTS,	GUWAHATI
14	203382	TECHNOCON SERVICES	KOLKATA
15	203524	ACC LIMITED	GUWAHATI
16	203968	WESTERN CONSOLIDATED PVT LTD.	KOLKATA
17	205335	INDUSTRIAL TRADE & AGENCIES	TINSUKIA
18	209114	SOHUM INDUSTRIAL SALES CORP	KOLKATA
19	211146	FORTUNE IMPEX	KOLKATA

Sl No.	Description	Specification – Annexure A I	Bidder's remark: Complied/Not complied/Deviation.	Bidder to indicate relevant page nos of their bid to support the remarks/compliances
1.0	Scope of work	Supply, Install, Testing and Commissioning of 'Silent Type' Diesel Generating set having Prime Power Rating of 7.5 KVA, 415 volts at 1500 RPM, 0.8 lagging power factor at 415 V suitable for 50 Hz, 3 phase system :		
2.0	Diesel Engine	4-stroke, naturally aspirated, air-cooled/water-cooled, electric start, of suitable BHP at 1500 RPM suitable for 7.5kVA output of alternator at 40 Degree C, 50%RH & at 1000 Meter MSL and conforming to BS 5514, BS 649, IS 10000, capable of taking 10% over loading for one hour after 12 hours of continuous operation. The engine will be fitted complete with all the required accessories.		
2.1	Engine Rating:	i) The engine shall be of standard design of the original manufacturers. It should be 4 stroke cycles, air cooled/water-cooled, naturally aspirated(as per manufacturer standard), diesel engine developing suitable BHP for giving a prime power rating of 7.5KVA as per ISO 8528- Part-1 at the load terminals of alternator at 1500 rpm at ambient temperature of 40°C, for height at 1000 Meter above MSL and at 50% RH. ii) The engine shall be capable for delivering specified Prime Power rating at variable loads for PF of 0.8 lag with 10% overload available in excess of specified output for one hour in every 12 hours. The average load factor of the engine over period of 24 hours shall be 0.75 (75%) for prime power output. iii) The engine shall conform to IS10000/ISO 3046/BS; 649/BS 5514 amended up to date. iv) The engine (Make & Model) offered, preferably engine of Kirloskar or Greaves Cotton, must be proven in generator set application and it must be running in generator set application elsewhere. v) The offered engine (Make & Model) must have authorized dealer/After Sale Service Center within 150KM from Duliajan. vi) Necessary certificate/manufacturer's product brochure in support of engine capacity offered, compliance of Noise and Emission norms as per latest CPCB guidelines for the DG set, should be furnished with		

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		the technical bid.		
2.2	Accessories	The engine shall be fitted with following accessories subject to the design of the manufacturer: (i) Dynamically balanced fly-wheel. (ii) Necessary flexible coupling and guard for alternator and engine. (iii) Air cleaner (dry/oil bath type) as per manufacturer standard. (iv) Mechanical governor (as per manufacturer's standard) to maintain engine speed at all conditions of load. (v) Daily fuel service tank of minimum 30 liter capacity, fabricated from M.S. sheet with inlet, outlet connections air vent tap, drain plug and level indicator (gauge) M.S. fuel piping from tank to engine with valves, unions, reducers, flexible hose connection and floor mounting pedestals, twin fuel filters and fuel injectors. The location of the tank shall depend on standard manufacturers design. (vi) Dry exhaust manifold with suitable exhaust grade silencer with Spark Arrestor to reduce the noise level. (vii) Suitable self-starter for 12 V DC. (viii) Battery charging alternator unit and voltage regulator, suitable for starting batteries, battery racks with interconnecting leads and terminals. (ix) Necessary gear driven oil pump for lubricating oil, priming of engine bearing as well as fuel systems as per manufacturer recommendations.		

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		(x) Naturally aspirated (as per manufacturer standard) (xi) Lubrication oil cooler (xii) Lubrication oil filters with replaceable elements. (xiii) Crank case heater as per manufacturer recommendations. (xiv) Fuel injection: MICO BOSCH fuel injection pump with provision for engine speed adjustment (xv) Fuel control solenoid (xvii) Engine Control Panel: fitted and having digital display for following: (a) Start/stop key switch. (b) Lube oil pressure indication (c) Water temperature indication (d) RPM indication (e) Engine Hours indications (f) Battery charging indication (g) Low lube Oil trip indication (h) High water temperature indication (i) Over speed indication. (xviii) All moving parts of the engine shall be mechanically guarded in such a manner that a human finger cannot touch any moving part. (xix) Radiator		

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		(xx) Any other item not included/specified, but is a standard design of the manufacturer.		
2.3	Governor:	Mechanical governor of class A2 as per ISO 3046/BS 5514 with actuator or equivalent suitable governor as per standard design of manufacturer shall be provided. Governor shall be a self-contained unit capable of monitoring speed. 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.		
2.4	Fuel System	It shall be fed through engine driven fuel pump. A replaceable element of fuel filter shall be suitably located to permit easy servicing. The daily service tank shall be complete with necessary supports, gauges, connecting pipe work etc. In case of top mounted tanks, non-return valves are must in fuel supply and return line of specified value. Pipe sealant should be used for sealing all connections. No teflon tape is to be used. If piping length is more than 10 meters, detail engineering is required in consultation with OEM/Manufacturers.		
2.5	Lubricating oil system:	It shall be so designed that when the engine starts after a long shut down lubrication failure does not occur. Necessary priming pump for the lub. oil circuit (if any) as per recommendation of manufacturer shall be installed, to keep bearings primed. This pump shall be normally automatically operative on AC/DC supply available with the set.		
2.6	Starting system:	This shall comprise of necessary set of Maintenance Free heavy duty batteries 12V DC(as per manufacturer standard), and suitable starter motors and axial type gear to match with the toothed ring on the fly wheel. Battery capacity shall be suitable for meeting the needs of starting system (as three attempt starting), as well as the requirements of control panel, indications and auxiliaries such as priming pump as applicable etc. The scope shall cover all cabling, terminals, including initial charging etc. The system shall be capable of starting the DG set within 20-30 seconds, even in winter condition with an ambient temperature down to 0° C.		

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2.7	Piping Work:	All pipe lines, fittings and accessories requirement inside the room/enclosure and outside for exhaust piping shall be provided by the successful bidder. This shall include necessary flexible pieces in the exhaust, fuel, lub. oil and water lines as are necessary in view of the vibration isolation requirement in the installation. Piping of adequate size shall be used for lub. oil of the material as per manufacturer standard. However, only M.S. pipe shall be used for the exhaust and fuel oil line should used. The pipe work shall be inclusive of all fittings and accessories required such as bends, reducers, elbows, flanges, flexible connections, necessary hardware etc. The installation shall cover clamps, supports, hangers etc. as are necessary for completing the work. However, the work shall be sectionalized with flanged connections as are necessary for easy isolation for purposes for maintenance of unit.		
2.8	Skid (Oil Field Type)	i) The skid should be of oilfield type and fabricated from sufficiently strong steel section for carrying the generating set from one place to another from time to time. ii) It shall have provision of lifting hook for convenient lifting of complete set i.e complete canopy, engine and alternator. iii) It shall be rugged in construction and designed for mounting engine coupled with alternator, with cross members mounted on AVM's (4 nos. or more). iv) Engine and alternator shall be coupled by means of flex plate/ flexible coupling as per manufacturer standard design and both units shall be mounted on a common bed plate together with all auxiliaries to ensure perfect alignment of engine and alternator with minimum vibrations. v) The bed plate shall be suitable for installation on suitable anti-vibration mounting system.		

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2.9	Exhaust Piping.	i) All M.S. Pipes for exhaust lines shall be conforming to relevant IS. ii) The runs forming part of factory assembly on the engine flexible connections upto exhaust silencer shall be exclusive of exhaust piping item. The work includes necessary cladding of exhaust pipe work using 50mm thick glass wool /mineral wool/ Rockwool, density not less than 46 kg/m2 and aluminium cladding (0.80mm thick) for the complete portion. iii) The exhaust pipe work includes necessary supports, foundation etc. to avoid any load & stress on turbo charger/exhaust piping.		
2.10	Exhaust system	i) Exhaust system should create minimum back pressure. ii) Number of bends should be kept minimum and smooth bends should be used to minimize back pressure. iii) Pipe sleeve of larger dia. should be used while passing the pipe through concrete wall & gap should be filled with 'felt lining. iv) Exhaust piping inside the Acoustic Enlosure/ Genset room should be lagged with asbestos rope along with aluminum sheet cladding to avoid heat input to the room. v) Exhaust flexible (Bellows) shall have it's free length when it is installed. vi) 'Class B' MS pipes and long bend/elbows should be used. vii) When tail end is horizontal, 45 Degree downward cut should be given at the end of the pipe to avoid rain water entry into exhaust piping. viii) When tail end is vertical, there should be rain trap to avoid rain water entry. If rain cap is used, the distance between exhaust pipe and rain cap should be higher than diameter of pipe. ix) Horizontal run of exhaust piping should slope downwards away from engine to the condensate trap. Silencer should be installed with drain plug at bottom.		

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2.11	Air System:	Vacuum indicator should be provided to indicate choked filter. Maximum air intake restrictions with clean and choked filters should be within prescribed limit as per OEM/ manufacturer recommendation for the particular model of the engine. Genset should be supplied with medium duty air cleaners.		
2.12	Engine shut down and alternator protection equipments	Following shut down and engine protection system shall be integrated into the gen set: i) Low lubricating oil pressure shut down. This shall be inoperative during start up and acceleration period. ii) High coolant (water) temperature shut down. iii) Engine over speed shut down.		
3.0	Specification of Alternator	1. KVA : 7.5 2. Phases : Three, in UVW sequence 3. Frequency, Hz : 50 4. Voltage, V : 415 5. Power factor, lag : 0.8 6. Ambient : 40 deg. C 7. Altitude : <1000 mtrs. 8. Speed, rpm : 1500 9. Excitation system: Brushless, self-excited, self-regulated with solid state AVR. The brushless alternator shall have exciter and rotating rectifier-bridge mounted on shaft complete with diodes and surge suppressor, main field windings and stator windings. 10. Mounting: Horizontal foot mounted on AVM pads 11. Duty: Continuous 12. Direction of rotation: Clockwise from DE 13. Automatic voltage regulator : M/c mounted or panel mounted. 14. Voltage regulation: +/-1% with 4% prime mover speed variation, VR Grade VG1 15. Time to build up rated voltage: Shall be less than 5 seconds at rated RPM 16. Standards : IS 13364 (Part I) -1992		

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		17. Class of insulation: F/H 18. Enclosure : IP 23 (SPDP) 19. Cooling : IC 01, air cooled by integral fan 20. Wave form distortion (THD) : Less than 3% 21. Overload capacity : 10% overload for 1 hr. once in 12 hrs. 22. Unbalance permitted : 25% with none of the phase currents exceeding the rated current. 23. No. of bearings : Single /Double 24. Lubrication type : Grease Lubricated 25. Generator output shall be terminated on a sufficiently rated (minimum 25 A) 4 pole RCBO (MCB with earth leakage protection) on the engine control panel. 26. Generator shall have provision for earthing at two separate points on the body/foot of the machine. 27. Preferable generator makes: Kirloskar/Mitsubishi/Crompton Greaves/Stamford/NGEF.		
4.0	Acoustic Enclosure	Specifications for Acoustic Enclosure: The acoustic enclosure shall be designed and manufactured confirming to relevant standards suitable for outdoor installation exposed to weather conditions, and to limit overall noise level to 75 dB (A) at a distance of 1 mtr. from the enclosure as per the latest CPCBII norms under free field conditions. The construction should be 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 confirm to the details as under: i) The complete enclosure shall be of modular construction. ii) The enclosure should be powder coated. Enclosure should be as compact as possible with good aesthetic look. It shall be fabricated out of CRCA sheet of thickness not less than *1.6* mm on the outside *cover* with inside *cover having* not *less* than *0.6*		

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		mm *thick* perforated powder coated CRCA sheet. All sheet metal parts should be processed through minimum 7-tank chemical treatment process. iii) The acoustic lining should be made up of high quality insulation material *i. e.* glass/ Mineral wool of minimum 50mm thickness and 75 Kg/cubic metre to 100 Kg/ cubic metre 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 should be supported by perforated M.S. Sheet duly powder coated. iv) The enclosure shall be provided with suitable size and nos. of hinged type 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 will be provided inside the enclosure on all sides of the D.G. set for inspection, easy maintenance and repairs. The complete enclosure shall conform to IP- 53 ingress protection. v) *The hinged doors* shall *be* made *from* not less than *16* SWG (1.6 mm) *thick* CRCA sheet and will be made air tight with neoprene rubber gasket and heavy duty locks. vi) The enclosure should accommodate the daily service fuel tank of the D.G. Set to make the system compact. There should be provision of fuel gauge, which should show the level of the fuel even when the DG Set is not running. The gauge should be calibrated. The fuel tank should have provision for filling up from the outside as in automobiles and should be provided with a lockable cap. vii) The batteries should be accommodated in the enclosure in battery rack. viii) The enclosure should be provided with high enclosure temperature safety device. ix) Enclosure ventilation shall be as per manufacturer design using		

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		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 fan (with motor and auto-start arrangement) and suitable size axial flow exhaust fan to take the hot air from the enclosure complete with necessary motors and auto start arrangement should be provided. The forced ventilation arrangement should be provided with auto stop arrangement to stop after 5 minutes of the stopping of D.G sets. x) The acoustic enclosure should be suitable for alternator/other cable connection through suitable cable entry arrangement. Such arrangements on acoustic enclosure shall be water proof and dust-proof to conform to IP-53. xv) OIL's Purchase Order No. shall be permanently marked on two sides of the enclosure in 8 Inch (200 mm) sized lettering. xvi) Enclosure Illumination: Enclosure shall be suitably illuminated from inside with CFL/FTL light fittings. xvii) The enclosure shall have two separate earthing points.		
4.1	Service Accessibility	Genset/Engine control panel should be visible from outside the enclosure. Routine/periodical check on engine/alternator (filter replacement and tappet setting etc.) should be possible without dismantling acoustic enclosure. For major repairs/overhaul, it may be required to dismantle the acoustic enclosure. Sufficient space should be available around the Genset for inspection and service.		
4.2	General Design Guidelines for Acoustic Enclosure:	To avoid re-circulation of hot air, durable sealing between radiator and canopy is must. Ventilation fans are must for the Gensets cooled by heat-exchanger/cooling tower system. Exhaust piping inside the enclosure must be lagged (except bellow).		

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		Temperature rise inside the enclosure should not be more than 5 Deg.C for maximum ambient above 40°C and it should be below 10 Deg.C for ambient below 40°C. There should be provision for oil, coolant drain and fill. Fuel tank should have provision for cleaning.		
4.3	Documents in support of CPCB Compliances	i) The offered DG set should have valid Type Approval and Conformity of Production Certificate from Certification Agencies as per latest CPCBII notification for Noise Limit. A copy of the same has to be furnished along with the offer from any one of the following authorised agencies for certification: 1) Automotive Research Association of India, Pune 2) Naval Science & Technology Laboratory, Visakhapatanam, 3) Fluid Control Research Institute, Palghat, 4) National Aerospace Laboratory, Bangalore; 5) International Centre for Automotive Technology, Manesar, Haryana, 6) National Test House (Northern Region), Ghaziabad, Uttar Pradesh. ii) The offered DG set should have valid Type Approval and Conformity of Production Certificate from Certification Agencies as per latest CPCBII notification for Emission Limits. A copy of the same has to be furnished along with the offer from any one of the following authorised agencies for certification: 1) Automotive Research Association of India, Pune (Maharashtra); 2) International Centre for Automotive Technology, Manesar (Haryana); 3) Indian Oil Corporation, Research and Development Centre, Faridabad (Haryana); 4) Indian Institute of Petroleum, Dehradun (Uttarakhand); and 5) Vehicle Research Development Establishment, Ahmednagar (Maharashtra).		

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4.4	Conformance labelling as per CPCB	Requirement of Conformance labelling as per latest CPCB [Environment (Protection) Rules]: (1) All the engines, individually or as part of the product shall be clearly engraved 'Genset Engine' on the cylinder block. (2) the engine or the product shall be affixed with a conformance label meeting the following requirements, namely:- (a) the label shall be durable and legible; (b) the label shall be affixed on a part necessary for normal operation of the engine or the product and not normally requiring replacement during the life of the engine or the product. (3) The conformance label shall contain the following information, namely:- (a) name and address of the manufacturer of engine or product, as the case may be; (b) statement that the engine or product conforms to the Environment (Protection) Rules,1986; (c) Type Approval certificate number; (d) date of manufacture of engine and the product or in case of import, the date of import of the engine and the product; and (e) rated speed and corresponding gross power in kW.		
5.0	Painting	All metal surfaces shall be thoroughly cleaned and degreased. The under surface shall be prepared by applying a coat of phosphate paint and a coat of yellow zinc chromate primer. After preparation of under surface, the panel shall be spray painted with two coats of epoxy based final paint. Panel finish shall be free from imperfections like pin holes orange peels, run off paint etc.		
6.0	Quality of materials and workmanship	i) The components of the complete generating sets shall be of such design so as to satisfactorily function under all conditions of operation. ii) The entire work of manufacture/fabrication, assembly and installation shall conform to sound engineering practice. The entire		

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		installation shall be such as to cause minimum transmission of noise and vibration to the building structure. iii) 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.		
7.0	Spare Parts	Spares for two years normal operation of the generating set should be included in the offer. Item wise breakdown price of spares should also be provided but that will not be considered for evaluation.		
8.0	Pre-dispatch Inspection and Testing:	a) The testing of the DG sets shall necessarily be carried out at factory/manufacturer premises in presence of representative of OIL. b) The successful tenderer will arrange staff/fuel/POL for test run at his cost. c) For testing, following procedure will be followed: i) All major items/equipment i.e. engine & alternator in assembled condition, associated electrical control panels etc. shall be offered for inspection and testing at factory/ manufacturers works. ii) All routine tests of the alternator and control panel (if required) shall be witnessed during the inspection at respective manufacturer's works. iii) The successful tenderer shall give a notice of minimum two weeks for carrying out such tests. OIL/or its authorized representative shall witness such inspection & testing at mutually agreed date. iv) Inspection/testing charges, if any, shall be quoted separately 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. v) OIL also reserves the right to inspect the fabrication job at factory and the successful tenderer has to make arrangements for the same. vi) DG set will be tested on load of unity power factor for the rated KW rating. During testing, each of the D.G. sets covered under		

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		scope of work, shall be operated for a period of 12 hours on the rated KW at DG set's KW rating including one hour on 10% overload after continuous run of the 12 hours. vii) During testing all controls/operations safeties will be checked and proper record will be maintained. Any defect/abnormality noticed during testing shall be rectified. viii) The testing will be declared successful only when no abnormality/failure is noticed during the testing. ix) The DG set will be cleared for dispatch to site only when the testing is declared successful by OIL.		
9.0	Installation and Commissioning of the Unit	a) Installation and Commissioning of the generating sets, control panels mounted on skid shall be carried out by the bidder in the presence of OIL representatives at its fields at Duliajan, Assam (India). b) Services of qualified and competent personnel from equipment manufacturer are essential during installation and commissioning of the generating sets. c) Persons engaged for installation, testing and commissioning of alternator and control panel should have valid electrical license issued by State Licensing Board. A person who is authorized for supervision of all electrical works should have valid supervisory license. d) External power cable from control panel of the unit to the load center shall be provided by OIL and the party will connect the same to the genset control panel. Party shall also connect the alternator earth points and enclosure earth points of the unit to OIL's earth system with cable/GI wire etc. provided by OIL. e) Materials such as line pipes, fittings necessary for fabricating fuel/ water lines (if required), supports for engine exhaust shall be provided by OIL. However bidder has to arrange welding and cutting facilities that may be required during installation and commissioning the generating sets.		

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		f) OIL will provide necessary statutory permits for welding and cutting jobs in classified areas as and when required. g) Installation / commissioning charges work should be quoted separately which shall be considered for evaluation of the offers. These charges should be included amongst others: to and from fares, boarding/ lodging and other expenses of the commissioning engineers during their stay at Duliajan, Assam (India). All Personal, Income and Service Tax etc. towards the services provided by the supplier shall be borne by the supplier and will be deducted at source. Bidders should also confirm about installation/ commissioning in the Technical Bid giving the scope of work. h) The genset will be treated as successfully commissioned from electrical side after successful load test of the unit at OIL's field site with available load for 72 hrs and submission of all documents and all spares as per Purchase Order.		
10.0	Trial – run/ Running – in period	a) After successful testing of the DG set and commissioned at designated site the generating set will be subjected to a trial run (reliability run) on available load for a minimum period of 72 hrs continuously and on satisfactory performance shall be subsequently handed over to OIL. b) The DG Set will be operated and a log of all relevant parameters will be maintained during this period. The arrangement of staff for trial run/running in period will be made by the successful tenderer. However, diesel shall be provided by OIL. The supplier will be free to carry out necessary adjustments. c) The DG Set will be said to have successfully completed the trial run, if no break down or abnormal/unsatisfactory operation of any component of the entire installation included in the scope of work of the contract, occurs during this period. After this the DG Set will be made available for beneficial use. d) After the DG set has operated without any major break down/trouble, it shall be taken over by OIL subject to		

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		guarantee/warrantee clause of this purchase order. This date of taking over of the DG set, after trouble free operation during the trial run/running-in period, shall be the date of acceptance/taking over.		
11.0	Safety Measures	All equipment shall incorporate suitable safety provisions to ensure safety of the operating personnel as per manufacturers' standard practice.		
12.0	Test Certificates	The supplier shall submit detailed records and certificates of the foregoing tests to the purchaser. The certificates/records shall be supplied in quadruplicate and those for electrical equipment shall be endorsed suitable for use in the climatic conditions specified.		
13.0	Packing	The packing shall be sufficiently robust to withstand rough handling. Boxes/packing cases containing electrical equipment shall be water proof lined. All the matters on the control panel should be packed separately for mounting at site or mounted in such a manner to prevent transit damage.		
14.0	Documents to be attached with the final shipment	The following documents [**at least 03 bound sets** (if not specified otherwise hereunder)] are to be separately packed and forwarded to HEAD- FIELD ENGINEERING, OIL INDIA LIMITED, DULIAJAN-786602, ASSAM, clearly indicating the OIL's Purchase order no and the description. 1. Complete Operating Instructions- with description and illustration of all switchgear controls and indicators and engine and generator controls. Draft copy of the same to be submitted to OIL's inspection team during the time of pre-dispatch inspection for approval. 2. Parts Books- that illustrate and list all assemblies, subassemblies and components. 3. Preventive Maintenance Instructions- on the complete system that cover daily, weekly, monthly, biannual, and annual maintenance requirements and include a complete lubrication chart. 4. Routine Test Procedures- for all electronic and electrical circuits and for the main AC generator.		

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		5. Troubleshooting Chart- covering the complete generator set showing description of trouble, probable cause and suggested remedy. 6. Recommended Spare Parts List- showing all consumables anticipated to be required during routine maintenance and test. 7. Wiring Diagram and Schematics- showing function of all electrical components. 8. Set of drawings showing installation details of the generating set, oilfield type skid, wiring diagram for the control panel (inclusive of float charger) and wiring drawing between the alternator and control panel should be provided with each generating set. All control panel diagram and schematic diagram are to be sent to us before supply of order materials. 9. Warranty documents, test certificates, requisite certificates as specified and all other relevant documents specified in OIL's purchase order. 10. **Three(03) sets** of following documents shall be submitted in bound form along with the supply of the genset (s): # GA drawing # Detailed power & control wiring diagram, detailed enclosure drawings for control panel, earthing # Scheme, layout plan of the unit showing all parts. # Details of power cables, control cable and their routes. # Bill of materials of all components. # Technical literature of alternator. # Composite O&M manual of the generator covering all sub-systems. # Catalogues of various components. # Part Manuals of Engine and Alternator. # All test certificates for tests done at manufacturer's works for alternator, control panel and complete unit. # Tests to be done during commissioning. # Guarantee certificate for alternator and control panel. Guarantee shall be for 12 months after commissioning of genset or 18 months after		

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		supply, whichever is earlier. # List of recommended spares for two years including part nos and descriptions.		
15.0	Responsibility	The responsibility for performance to the specifications shall not be divided among individual component manufacturers, but must be assumed solely by the supplier. This includes generating system design, manufacture, test, and having a local supplier responsible for service, parts and warranty for the total system.		
16.0	Service and Warrantee/ guarantee	a) The manufacturer (engine) shall have a local (placed in Assam) authorized dealer who can provide factory trained servicemen, the required stock of replacement parts, technical assistance, and warranty administration. b) It shall ensure adequate and prompt after sales service free of cost during guarantee/warrantee period, and against payment after the guarantee/warrantee period is over, in the form of maintenance, spares and personnel as and when required during normal life span of the equipment and shall minimize the breakdown period. c) The guarantee / warranty period for the Gen set and ancillary equipment should 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. d) All equipment shall be warrantee/ guaranteed, against unsatisfactory performance and/or break down due to defective design, workmanship or material. The equipment or components, or any part thereof, so found defective during warrantee/guarantee period shall be forthwith repaired or replaced free of cost, to the satisfaction of OIL. In case it is felt by OIL that undue delay is being caused by the supplier in attending the defect/fault removed, the same will be got done by OIL at the risk and cost of the supplier. The decision of OIL in this regard shall be final.		

Sl No.	Description	Specification – Annexure A I	Bidder's remark: Complied/Not complied/Deviation.	Bidder to indicate relevant page nos of their bid to support the remarks/compliances
17.0	Special Terms and Conditions (Technical):	1. Bidder shall be an Original Equipment Manufacturer of any of the following 3 (three) items being offered or their authorized dealer: (i) Generating set (ii) Engine (iii) Alternator Notes: (i) In case of any one of the above 3(three) items being bought-out item; it must be purchased from the respective OEM or their authorized dealer only. Supporting documentary evidence of such purchase(s) shall be furnished during the pre-dispatch inspection or along with the supply. (ii) None of the above 3(three) items shall be of obsolete Make/Model/Type. The bidder must furnish undertaking from OEMs that the items are not going to be obsolete and their spare parts shall be available for the next 10(ten) years reckoned from the date of dispatch.		