OIL INDIA LIMITED
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Kolkata-700001 E-mail :oilcalmn@oilindia.in

Tender No. & Date : KID2802L17/08 24.10.2016

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 : 06.12.2016 at 14:00 hrs. (IST)
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Performance Guarantee : Applicable

OIL INDIA LIMITED invites Limited tenders for items detailed below:

Item No./ Mat. Code	Material Description	Quantity	UOM
10 0C000456	**1.0 Submersible water pumps as a compact unit consisting of a submersible pump and a submersible motor with shafts connected by a sleeve and operating submersed under water.** (A) Pump specifications: General Specifications of the pump: Type : Submersible Capacity : Pump should have minimum discharge of 5 M3/ Hr at a corresponding head of 35 Meter (minimum) at duty point. Liquid : Water of Sp. Gravity 1.0 Duty : Continuous Well Bore Dia in which pump will be lowered: 100 MM (4inch) Static water depth: 10 M to 18 M below ground level Pump Delivery size: 50 MM (2 inch) NB Lubrication: Lubricated by pumped liquid (water). Bearing should be protected against the ingress of sand by suitable structural element. Make: WIPL/KIRLOSKAR/KSB/MATHER/CRI or any other reputed make. The motor is to be coupled with the pump through a suitable coupling for easy dismantling and servicing. The pump should conform to IS 8034:2002 B) MATERIALS OF CONSTRUCTION (MOC): Conforming to IS 8034:2002 and to handle raw water of below mentioned quality Water quality to be handled by the pump(indicative only): Appearance : Clear pH : 6.5 to 8.5 Turbidity : 150.0 NTU, 50 ppm Specific gravity: 1.0 Chloride : 10.0 ppm Silica : 34.0 ppm Total Hardness : 300.0 ppm Iron : 6 ppm (max) Total dissolved solids: 126.0 ppm, max	10	NO

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	The indicative MOC of the Pump sets are given below. 1.Pump shaft:Stainless steel grade X 04 Cr 12,X 12 Cr 12 or X 20 Cr 3 of IS 6603 2. Impeller: Bronze grade LTB 2 of IS 318 or Stainless Steel Grade X 12 Cr 12 of IS 6911 or IS 6603 / casted steel, SS410, SS304. 3. Pump bowl/diffuser: Cast iron grade FG 200 of IS 210 NOTE - (i)The bidder shall specify the tests and inspection procedures that may be necessary to ensure that materials are satisfactory for the service. Such test shall have to be mentioned in the bidder's offer. The bidder shall have to submit detail test certificates for the material testing (Material of Construction) mentioned in their offer prior to pre- dispatch inspection of the pump sets. (B) General Notes on pump: (a) The pump should conform to IS 8034:2002 specifications and the clarification from OEM in this regard should be provided along with the offer. (b) The bidder should be an OEM or authorized distributor / dealer of OEM. In case bidder is the authorized distributor / dealer of OEM, then valid dealership/ authorization certificate should be enclosed along with the offer. (c) The unit should be a compact one made up of a submersible pump and a submersible motor with shafts connected by a sleeve and operates submerged below the surface of water. The unit should be capable of being suspended vertically when installed. (d) The direction of rotation should be clearly and securely marked by incorporating an arrow on the pump sets. (e) A name plate with corrosion resistant material shall be affixed on the pump sets with details such as: IS mark, model, manufacturer's name, serial no, no of stages, RPM, suction and delivery sizes etc. (f) Performance chart of pump indicating capacity, head, efficiency, size of impeller, no of stages etc. should be forwarded along with the offer. (g) The unit shall be suitably painted by water resistant paint. 2.0 SPECIFICATIONS OF ELECTRICAL ITEMS A. Motor Specifications: Motor shall be suitable for 415 +/- 6% volts, 3 Phase, 50 cycles AC supply and should withstand high voltage fluctuations. The motor shall have the following specifications. Type : Submersible water filled squirrel cage AC induction Motor HP : 1.5 HP Voltage : 415 +/-6% V RPM : to match driven loads Frequency : 50 Hz +/- 3% Hz Starting : DOL Duty : Continuous Bearing : Thrust bearing Protection : IP 58 Standard : IS-9283, Motor as per cat-B Earthing : As per IS-9283, 3043 Markings : Name plate details with name of manufacturer, frame size, rated		

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	voltage, rated output, current, frequency, type of duty, class of insulation, no. of phases, speed in rpm at rated output, degree of protection, winding connections, temp rise, bearing sizes, nominal efficiency, category of motor, ref to IS 9283, lubricant, lubrication material and year of manufacture Suitable measures shall be taken in design for thrust control, pressure control, lubrication, winding cooling, sealing etc. The connection designation of windings should be clearly marked at the ends. Same marking are to be provided at both ends of the cable to be connected. General Notes on motor: 1. Motor shall be tested as per BIS and test certificates shall be furnished with the supply. 2. The motor(s) shall be guaranteed for 1 (one) year from the date of commissioning. Guarantee certificate shall be duly signed and stamped by the supplier and shall be provided along with the supply. B. Motor Cables: Each motor shall be supplied complete with 1 no. 4x6 sqmm,PVC insulated motor cable of 50 mt length with flexible copper conductors. One end of the cable shall be connected to stator winding and the joint made waterproof. Cable should conform to BIS. No joints shall be allowed. A. General notes on the starter: I. The starter shall be placed inside safe area and hence is not required with FLP enclosure. Neutral shall not be used, as the source (generator) shall be grounded with high resistance. II. Starter shall be Direct On Line (DOL) starter. It shall be non draw out type. III. Starter shall be self mounting on sturdy angle iron frame. Mounting frame and enclosure of the starter panel shall have specifications as follows: a) Panel shall be sheet steel clad, cubicle type, made of 2.0 mm thick MS CR sheet. It shall be suitable for operation from the front. Panel shall be dust /vermin proof and weatherproof (IP 55). Ventilation louvers shall be provided on both sides; however, louvers shall be shielded with fine wire mesh (inside the panel). Special non-deteriorating Neoprene rubber gaskets shall be provided between all joints. Panel door shall be provided with single turn latches for opening / closing and locking arrangement. Danger plates shall be fitted on front and back of the panel. Bottom detachable gland plates made from 2.0 mm thick MS CR sheet shall be provided for all cable entries. Height of bottom detachable gland plate shall be 450 mm from floor level. b) The entire metal work shall be treated with minimum nine tank anti-rust/anti-corrosion treatment as per IS and then powder coated in DA Grey color. Painting thickness shall be minimum 50 micron. c) Internal earthing shall be provided for all equipment having earthing terminal and panel doors with suitably rated, PVC insulated, flexible copper earth wires or copper braids of suitable rating as per IS. Earthing terminals of the components shall be suitably connected to an earth bus inside the panel. The earth bus shall be connected to the panel at two places with suitable GI hardware. Double earthing studs on two sides(both inside and outside) complete with suitably sized zinc plated & passivated double nuts and spring washers shall be provided on the panel. d) The size of the panel shall not be more than 400mm (W) x 400mm (D) x 600mm (H). Total height of the starter including stand shall not exceed 1200		

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	mm. e) The frame of the panel shall be sufficiently strong, welded structure of suitably sized MS angle/channel of sufficient strength with vibration dampers. The frame shall be mounted on a bottom structure made from suitably sized MS channel, with provision for grouting. f) Panel shall be designed for Ambient of 45°C (Max)/ 5°C (Min) and Humidity-95% (Max). g) Panel shall conform to IS: 8623 and IS: 13947. IV. Bus bars/bus links of main power connections shall be minimum 75 A tinned copper bars. V. Starter shall have adequate nos. of potential free NO/NC contacts for interlocking/instrumentation. VI. Starter shall have Type '2' Co-ordination, breaking capacity 36 kA at 415 V, 3Ø, 50 Hz as per Standards IEC 60947-4-1, IS: 13947 (Part 4/Sec. 1), EN 60947-4-1 VII. Protection: The starter shall have the following minimum (but not limited to) protections: a. Short Circuit (in-built in the MCCB) b. Overload through Thermal bi-metallic overload relay c. Earth-leakage: EL protection shall be provided with separate CBCT & ELR. The EL relay shall have indication LEDs, test push button, reset push button and shall be duly wired up to trip starter in case of earth leakage. d. Phase failure e. Dry Run: to prevent running the pump in dry condition Water level guard unit with probes/electrodes and adequate length of cable for connection of probe with the panel shall be provided. VIII. REMOTE/LOCAL switching: The control panel shall include START / STOP push buttons with separate terminal block for remote Start / Stop PB Station. IX. DP MCB: 1 no., 6A DP MCB shall be fitted suitably on the side wall of panel for operation from outside the panel for pump shed lighting. Incoming power to this switch shall be tapped from the main incomer through 6 amp HRC fuse using single core 2.5 sq mm PVC insulated copper cable and shall be marked accordingly. The connection terminals of MCB should not be accessible from outside the panel. X. Metering & indication: The panel shall have meters and indication for the following information. HRC Instrument Fuse Holders with suitably rated HRC fuses shall be used for the circuitry: a. Motor current (through Y phase only) in single phase digital ammeter with properly rated CT b. Indications: LED type indicating lamps with complete fittings, with legend plate for "Motor On", "Motor Off", "Motor Trip on Fault". XI. Control cable size shall be 2.5 mm2 for CT circuits, 1.5 mm2 for others. Cable terminals shall be provided with suitably sized crimping lugs. All cables shall be 660/1100 V graded PVC insulated multi-stranded copper cable. Wires shall be properly marked with coloured and numbered ferrules. All wires shall have ferrule numbers for proper identification. XII. Tinned copper brought out terminals shall be provided for all cable connections including terminals for remote push buttons and shall be supplied with tinned copper crimping lugs for each conductor of all cables. XIII. Legend plates (engraved aluminum, riveted) for the indication lamps, meters, control switches / buttons and labels for the terminals shall be provided.		

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	XIV. Sufficient space shall be provided in the starter for cable termination, dressing and connecting cable leads to the brought out terminals. XV. Suitable cable entry arrangement with detachable gland plates and adequate nos. of single compression, heavy duty nickel plated brass glands shall be provided for terminating of 1 no. incoming (4x10 sq mm) and 1 no. outgoing (size as per capacity of motor) 4 core, PVCA, aluminum cable. All cable entries shall be from bottom and detachable gland plate for all cable entries shall be at a min. height of 450 mm from floor level. The sides of the cable entry box shall be parallel and not tapered. B. Components: I. Incomer MCCB, (rating shall be according to motor rated power) 3P, 415 V AC, 36 kA breaking capacity with direct rotary handle- 01 no. II. 3 Pole contactors, AC3 normal life rating (shall be according to motor rating), with 415/240 VAC coil & 4NO+4NC contacts- 01 nos. III. Thermal overload relay, range as per motor rating, direct mounting on MC contactor (as per manufacturer's listed product) IV. Single phase digital ammeter, CT operated V. CT for ammeter 50/5- 01 no. in yellow phase VI. Fuse holder 1 pole- as required VII. HRC Fuse link cylindrical 415 VAC, 80 KA fault level- Qty. as required VIII. RCCB 2 pole for motor control circuit earth leakage protection, rating 25 A, 100 mA IX. O/L lamp LED type - Yellow size 22.5 mm X. ON lamp LED type - Red Size 22.5mm XI. OFF lamp LED type- Green Size 22.5 mm XII. Core balance current transformer in the outgoing cable from MCCB XIII. RCD for earth leakage tripping- Trip setting 0 mA to 3 Amps adjustable in preferred steps of 50/100mA steps. Time delay setting 0 to 5 s adjustable in preferred steps of 50/100ms. RCD trip signal will be connected in series with the motor overload circuit, so that in case of earth leakage, contactor will trip. XIV. Water level guard unit with probes/electrodes and adequate length of cable XV. Power/ Control cable- as required XVI. Cable terminals & accessories- as required XVII. Control TB: DIN Channel mounted XVIII. Power TB: Stud type 4 pole XIX. DP MCB: 1 no., 6A DP MCB C. Makes of Components: I. MCCB/MCB: Merlin Gerin / Legrand / Siemens/ABB II. HRC Fuses / Fuse Holders: GE III. Contactors: Siemens / GE India / Telemecanique (Schneider Group)/ABB IV. OLR: Siemens / GE India /Telemecanique (Schneider Group) MCCB, Contactors, overload relay shall be of same make and shall be properly coordinated for maximum protection. V. Ammeter: Automatic Electric/Conzerv Pvt Ltd. VI. LED Type Indication Lamps: Vinay / Technik/Siemens/L&T VII. CTs: Kappa/ AE VIII. Earth Leakage Relay: Merlin Gerin / Legrand IX. Local/Remote selector switch: Siemens / L&T/ Kaycee/ Salzer X. RCBOs /MCBs /RCCBs: Legrand /Merlin Gerin /Siemens XI. Terminal Blocks / DIN Channel: Connectwell /Tosha		

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	XII. Wiring Cables: Finolex /Havell/other reputed brands XIII. Lugs: Dowell XIV. SPPR: Siemens / Schneider XV. Water level guard: Minilec/L&T/Siemens D. One laminated copy of the approved power & control circuit drawing shall be pasted inside of the front door of the Starter Control Panel. E. Name plate and rotation arrows: A nameplate shall be securely attached at a readily visible location wherein the manufacturers name, machine serial number, maximum and minimum design limits and rating data, maximum allowable working pressure and temperatures, hydrostatic test pressure etc. should be clearly indicated. Rotation arrows indicating direction of rotation of major items should be cast in or attached. Notes: Bidder shall furnish details of the electrical items in their offer as per the above specifications IN THE SAME ORDER. All of the above shall form part of the offer acceptability. Specific type and make of components should be mentioned clearly. No deviation shall be allowed at the time of supply and in such case the order will be cancelled without any liability to OIL. In case of such cancellation OIL may recover from the bidder the cost incurred by OIL in processing the tender till the time of cancellation. F. Spares: Following spares are to be provided along with the supply: a) MCCB used in the starter panel: 1 no. per panel b) TP Power Contractor used in the starter panel - 1 no. per panel c) O/L relay used in the starter panel - 1 No. per panel. d) Water level guard used in the starter panel - 1 No.		
	Installation & commissioning		
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Special Notes : 1. Guarantee / Warranty certificate for one year 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. 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.

4. Installation & commissioning to be carried out at site at Duliajan, Assam. Bidder to be quote the installation & commissioning charges separately clearly indicating the applicable service tax.

SPECIAL TERMS AND CONDITIONS

1.0 The bidder should be an OEM of the Submersible pump or an authorized dealer/distributor of OEM of the offered Submersible pumpset.

2.0 In case of authorized dealer / distributor, the bidder has to furnish valid authorization certificate from OEM of their offered pumpset along with the offer.

3.0 The bidder shall provide technical details of all the components of their offered product along with catalogues/brochures etc. along with the offer.

4.0 A. The following documents shall be submitted with the offer specific to electrical items:

a. GA and dimensional drawing of the starter panel.
b. Component layout diagram
c. Power and control circuit diagrams
d. Bill of materials and technical details of various components of the Starter Control Panel.

B. The successful bidder shall obtain OIL's approval for the following drawings within a month of issue of LOI or placement of firm order:
a. GA and dimensional drawing of all equipment
b. Power and control circuit diagrams
c. BOM
Manufacturing of the unit is to be started only after written approval of the drawings by OIL.

5.0 The bidder should forward the following completed DATA SHEET along with their offer
A. PUMP:-
MAKE:
MODEL:
RPM:
NO OF STAGES:
CAPACITY:
BRAKE HORSE POWER (Required):
MAX HEAD & MIN HEAD:
DELIVERY PIPE SIZE:
MINIMUM BORE WELL SIZE:
MATERIAL OF CONSTRUCTION:

B. MOTOR:-
MAKE:
MODEL:
MOTOR RATING (HP):
RATED CURRENT:
NO OF PHASE:
VOLTAGE:
FREQUENCY:
STARTER:
MATERIAL OF CONSTRUCTION:

6.0 The bidder shall categorically confirm about the their ability to provide after sale service in terms of providing factory trained servicemen, the required stock of replacement parts, technical assistance and warranty administration within 72 hrs of call. The bidder should indicate the Name & Address of the local authorized dealer in their bid.

7.0 The bidder should have an authorized service centre along with spare parts supply facilities within India. The bidder should indicate the Name & Address of the authorized service centre in

their bid. In the event of not having such a facility, successful bidders must give a written assurance of establishing such a facility in their bid.

8.0 Pump should conform to IS 8034:2002 and the bidders should provide a confirmation from OEM along with their offers.

9.0 The bidder has to supply commissioning spares, if any.

10.0 The bidder must undertake & confirm that the equipment to be supplied are not going to become obsolete for the next 10yrs and provisioning of spares can be continued.

11. The bidder must confirm in the bid about supply of special tools , if any, along with the supply for dismantling of this pump including coils of water proof tap for cable connection and should be included in the offer with unit price, part no. etc.

12.0 The supplier shall categorically confirm that they shall provide the following documents 01 (one) set (both hard copy and soft copy) against each pump along with the supply of the items. Until submission of all relevant documents, the item shall not be considered as suitable.
a. Operation & Maintenance Manual /parts catalogue (both in hard copy and in CD format)
b. Approved GA and dimensional drawing of all equipment
c. Approved Power and Control circuit diagrams
d. Bill of materials with technical details of various components of the Starter Control Panel
e. List of recommended spares
f. All test certificates
g. Warranty /Guarantee Certificates

13.0 Successful bidder should emboss the OIL's Purchase Order No. on the Pump set's Body.

14.0 WARRANTY:
The warranty period for the pump-set and all other accessories should be a minimum of 12 months from the date of commissioning or 18 months from the date of dispatch. The relevant warranty certificate should be submitted at the time of delivery of the pump sets.

15.0 INSPECTION:
OIL will inspect the unitized Pumpset as a whole at manufacturer's work prior to dispatch. Test certificate of pumps and motors has to be produced at the time of inspection. However such inspection will not relieve the supplier of his responsibility to ensure that the equipment supplied conforms to the correct specifications and is free from manufacturing and all other defects

NB: i. OIL shall bear the cost of travel, boarding & lodging arrangements for the deputed OIL's representative/s for the inspection purpose.
ii. Supplier has to inform OIL at least two week in advance for the inspection at manufacturer's work.

16. Transportation:
The items to be packaged properly to avoid damage during transportation and all electrical equipment are to be suitably packed to avoid water ingress or transit damage.

17.0 Installation, testing and commissioning of the pump set:
i. The pump set along with the motor, starter control panel and other accessories shall be installed, tested and commissioned by the supplier to full satisfaction of OIL. All items required for installation and commissioning shall be approved by OIL's Engineer In-charge.
ii. All safety and local/government regulations shall be followed during installation, testing and commissioning.
iii. All works of installation, testing and commissioning shall be performed under the direct supervision of an experienced licensed supervisor. All electrical works shall be done by persons having valid electrical license.

iv. All works of installation, earthing, testing and commissioning shall be carried out in compliance with latest BIS, CEA Regulations 2010, Indian Electricity Acts and National Electric codes.
v. Necessary clamping device for installation must be provided.

18.0 Scope of Supply and Installation by the Supplier

i. Supply of pumpset, starter panel, cables, water level guard
ii. Supply of cable from starter to motor
iii. Supply of cable from starter to water level guard probe
iv. Installation of pumpset, starter panel including all accessories
v. Laying and termination of main incomer cable to the incomer MCCB (incomer cable to be supplied by OIL)
vi. Laying and termination of cable from starter panel to motor
vii. Laying and termination of cable from starter to water level guard probe
viii. Laying and termination of cable from DP MCB (mounted on starter) to light fitting inside the pump house
ix. Earthing starter panel and motor (if required) with proper GI straps and earth electrodes (as per IS: 3043 and IS: 9283)
x. Testing and commissioning of the pumpset along with starter panel, accessories and all safety systems for proper functioning to full satisfaction of OIL.

Notes: All cables shall be fixed and rigidly supported using metallic saddles / clamps / MS pipes / MS angles. Spacing between saddles shall be max 300mm. Saddles and fixing hardware shall be supplied by the party. Cables from starter panel to motor/pump casing shall be protected with heavy duty GI/ Painted MS pipe. The pipe shall be fixed to the floor of the pump house with clamps.

All cables shall be connected through suitably sized single compression glands and terminations will be made through properly rated tinned copper sweating sockets crimped rigidly to the copper conductors. All termination accessories shall be supplied by the party.

19.0 TRIAL RUN:
Once commissioned at designated site the pump set will be subjected to a trial run on available load for a minimum period of 5 hrs and on satisfactory performance shall be subsequently handed over to OIL.

20.0 **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.

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Tender issued to following parties only:

Slno	V_Code	Vendor Name	City/Country
1	200211	STEEL & INDUSTRIAL STORES	ASSAM
2	200392	RAVI BROTHERS	GUWAHATI
3	200885	KIRLOSKAR BROS. LTD.	PUNE
4	200932	WILO MATHER AND PLATT PUMPS PRIVATE	KOLKATA
5	202649	KSB PUMPS LIMITED	KOLKATA
6	202745	WATERTECH ENGINEERS PVT. LTD.	KOLKATA
7	203376	TECHNOTRADE	TINSUKIA
8	203532	AMRIT ENGG. P. LTD.	AHMEDABAD
9	204084	WPIL LTD	24 PARGANAS
10	208475	KIWI PUMPS	RAJKOT
11	208476	SHAKTI PUMPS(INDIA) LIMITED	PITHAMPUR
12	208477	HINDUSTAN ENGINEERING ENTERPRISES	KARNAL
13	211691	CRI PUMPS	KOLKATA
14	212235	MBH PUMPS (GUJRAT) PVT. LTD.	KARNAL
15	212236	OSWAL PUMPS LTD	KARNAL
16	212237	LUBI INDUSTRIES LLP	AHMEDABAD
17	212238	TORISHIMA PUMPS INDIA PVT. LTD.	GURGAON