

Blank BOQ

Sl. No.	Item Description	Quantity	Units
1	2	4	5
1	DIESEL GENERATING SET : Design, manufacture, assembly, testing at works, supply, erection, testing & commissioning at site as per specifications complete in all respect of DG Set of 320 KVA prime rating as specified below: 415 Volts, 3 phase 4 Wire, 50 Hz, 1500 RPM AC alternator coupled with Radiator Cooled Diesel Engine complete with all accessories, like self starting device, fly wheel coupling with guard, V belts, cooling system, instrument panel comprising of switch with key, starting battery & battery charging device, safety control for lub oil pressure with tripping etc. The alternator insulation shall be class 'H' with temperature rise limited to Class 'F' value suitable to withstand tropical conditions and shall generally comply with BS 5514 and IS 10002. The over load capacity shall not be less than 110% of rated capacity for 1 hour in every 12 hours. DG Set shall be enclosed in an acoustic enclosure. The enclosure shall have provision of space required for inspection and minor maintenance. 24 Volt Lead Acid rechargeable battery set of adequate AH rating complete with teak wood battery stand, suitable trickle/boost chargers, battery leads. Neutral CT of suitable ratio & Class PS accuracy mounted in the terminal box for Alternator REF protection shall be included. The governor class shall be G2/A1 as per ISO 8528 part V, Lube oil change period shall not be less than 500 Hrs. Voltage deep shall not exceed 20%. Voltage built up shall not more than 1 sec. Fuel consumption shall be linear after 50% of load. 320 KVA DG Set with acoustic enclosure & standard accessories (For Detail Specifications Kindly See Technical Specifications)	1	Set
2	RCC FOUNDATION OF DG SET : Designing & casting of RCC foundation suitable for 320 kVA DG set considering safe soil bearing capacity at site as 10 T/sq m & as per DG manufacturers design specification including excavation, RCC foundation nut bolts etc. in an approved manner. Clearing the site by removing excavated murum/soil/bolders/debris etc. & making the site good as per site requirement.	1	Set
3	SUPPORTING STRUCTURE FOR EXHAUST SYSTEM : Supply, Fabrication & Erection of M.S. steel structure made of M.S. angles / Channels etc. duly painted as required at site for DG exhaust pipe support.	150	Kg.
4	FUEL PIPING : Supply, installation, testing and commissioning of schedule- C class MS 25 mm dia piping conforming to IS-1239 for fuel piping complete with all necessary fittings and valves between day oil storage tanks and DG sets including jointing of pipes, painting with 2 coats of Zinc oxide and two coats of enamel paint.	40	RM
5	CABLES AND BUSDUCT : Supply and laying 3.5C x 300 Sq.mm A2XFY Aluminium XLPE Armoured Cable 1100 volts grade in Cable Trays/ Hume Pipes/clamped to wall with suitable clamps saddles and fixing bolts including testing and commissioning. complete as required. Identification tags shall be provided for all cables.	100	RM
6	Supply and laying 1C x 120 Sq. mm Copper Flexible Cable, 1100 volts grade in Cable Trays/ Hume Pipes/clamped to wall with suitable clamps saddles and fixing bolts including testing and commissioning, complete as required. Identification tags shall be provided for all cables.	20	RM
7	Cable end termination of the 3.5C x 300 Sq.mm A2XFY Aluminium XLPE Armoured Cable , 1100 Volt grade including cost of crimping tinned copper heavy duty bimetallic lugs, double compression glands, insulation tape and all requisite material for completion of joints.	4	Nos.
8	Cable end termination of the 1C x 120 Sq. mm Copper Flexible Cable, 1100 Volt grade including cost of crimping tinned copper heavy duty bimetallic lugs, double compression glands, insulation tape and all requisite material for completion of joints.	8	Nos.
9	Earthing Stations: : Supply, installation, testing and commissioning of eco safe electrical grounding system with Copper plated electrode of 25 mm dia rod having at least 250 micron copper plating, 3 meter long, 'U' bolt clamp etc. SGI make an earth enhancing compound to reduce the soil resistivity as per IEC 62561-7. It should be highly conductive earthing backfill compound terec + 5 Kg and earthcon - 25 Kg, capable of reducing soil resistivity for electrical requirements, maintains constant volume regardless of moisture content, not diffuse in to the ground, not expand or experience any shrinkage but remain in constant contact with earth & should be able to reduce contact resistance to earth significantly & create a low steady state impedance for a very long period resulting in faster transient dissipation. The standard earth electrode shall be made of high tensile low carbon steel circular rods, molecularly bonded copper or clad copper on the outer surface to conform with the requirements of UL467-2007. Providing masonry enclosure with 1.5 feet X 2 feet medium duty RCC chamber with cover arrangement and disconnecting/ testing links etc as per IS -3043 complete as required.	4	Set
10	Soil resistivity testing & report	2	Nos.

11	Earthing Strip/Wires : Supply, installation, testing and commissioning of 50 x 6 mm G. I. strip clamped to walls, cable trays, bus ducts, cables in recess or surface etc for equipment/ System earthing complete as required including inter connection between length at joints, all fixing accessories saddles, clamps etc and other fixing hardware material as required for proper installation.	120	RM
12	Earthing Strip/Wires : Supply, installation, testing and commissioning of 50 x 6 mm Copper strip clamped to walls, cable trays, bus ducts, cables in recess or surface etc for equipment/ System earthing complete as required including inter connection between length at joints, all fixing accessories saddles, clamps etc and other fixing hardware material as required for proper installation.	50	RM
13	Synchronisation with existing 2 X 320 KVA KOEL make DG Sets : Vendor to note that the existing KOEL make 2 X 320 KVA DG sets if requires changes at alternater & governer level so as to synchronise with the new DG Set. Necessary changes & additional material required shall be the responsibility of the DG vendor. Vendor to check the same at site before quoting. Synchronisation Panel for 4 Nos. of 320 KVA DG sets is already installed and presetyly working with 2 X 320 KVA DG sets in load sharing & synchronisation mode.	1	Job
14	Charges for Laisoning & Sanction for the DG set : Statutory approval from authorities like PWD, SEB, CPCB etc. for installation & commisioning of above DG sets complete as required. Vendor to prepare & submit required documents & drawings to authorities for sanction & approval & submit the commissiningreport to the client. Please note that any statutory payment to the departments shall be paid by the clients seperately on submission of the receipt by vendor.	1	L.S.
Total in Figures			
Quoted Rate in Words		INR Zero Only	