

<b>PORBANDAR MUNICIPAL CORPORATION - PORBANDAR</b>		
<b>PORBANDAR</b>		
<b>BID DOCUMENTS FOR SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF 100 KVA SILENT DIESEL GENERATOR SET WITH AUTOMATIC CONTROL PANEL INCLUDING ELECTRICAL CONNECTIONS, AND ALL ASSOCIATED WORKS AT CHHAYA BUILDING FOR PORBANDAR MUNICIPAL CORPORATION.</b>		
<b>SCHEDULE NO.</b>	<b>NAME OF WORK</b>	<b>AMOUNT IN RS.</b>
SCHEDULE-B1	SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF 100 KVA SILENT DIESEL GENERATOR SET WITH AUTOMATIC CONTROL PANEL INCLUDING ELECTRICAL CONNECTIONS, AND ALL ASSOCIATED WORKS AT CHHAYA BUILDING FOR PORBANDAR MUNICIPAL CORPORATION.	1434181.82
	Total Amount Rs.	<b>1434181.82</b>
	<b>Say Amount Rs.</b>	<b>1434182.00</b>
I/We am/are willing to carry out the work @ _____ % Above / Below _____ Percentage (should be written in figures and words) of the Estimated rates mentioned above amount of my / our Tender works out as under.		
<u>Estimated Amount</u>		<u>Estimated Amount</u>
<b>Put to Tender Rs.</b>		<b>Put to Tender Rs.</b>
Add            % Rs.		Deduct            %Rs.
Total Rs.		Total Rs.
(In Words		(In Words

**Consultant**  
**DD(OPC) PVT. LTD.**  
**Ahmedabad**

**City Engineer**  
**Porbandar Municipal Corporation**  
**Porbandar**

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SCHEDULE-B1					
Sr. No.	Description	Qty	Unit	Rate	Amount
1	<p>Supplying and erecting, commissioning and testing of Diesel Generating set confirming to IS: 4722:1968 &amp; BS:5514 having continuous rating, 3 phase, 415 volts, 50 cycles A.C. supply comprising of a totally enclosed air/water cooled diesel engine with multi-cylinders developing suitable BHP not less than following capacity at 1500 RPM with 10% overload for one hour in 24 hours with standard accessories like fly wheel, lubricating oil cooler, "A" class governor, heavy duty fuel wheel and lubricating oil filter, oil bath air filler, lubricating oil pressure gauge, end exhaust manifold, standard set of tools with adjustable spanners, screw drivers, cylinder head to cover, joint cylinder head to exhaust, element lube oil filter, 12 / 24 volts electric starting equipment complete with standard heavy duty battery, dynamo, cut-outs, ammeter, necessary wiring, pressure gauge, starter etc and heavy duty Residential type exhaust silencer (With DEF System) and vertical hot air duct both logged with asbestos rope, save oil trays, exhaust piping of required length, standard wall/floor mounted fuel with level indicator and piping and drip proof alternator, self excited, self regulated, screen protected, with excitation system, capable of delivering the rated system output at 415 volts, 3 phase, 0.8 PF, 50 Hz, 4 wire, running at 1500 RPM, conforming to IS-4722- 1968 with voltage regulation +/- 5% of rated voltage from no load to full load. Both the engine and alternator fitted on a common fabricated steel base plate with antivibration mounting engine and alternator both connected to each other by flexible flange coupling and with floor/wall mounted control panel box comprising of voltmeter ammeter, selector switches, ACB / MCCB / MCB of adequate capacity, indicator lamps duly wired with HRC fuses. The alternator &amp; control panel shall be connected with provided suitable capacity armoured cable and complete with Acoustic enclosure (canopy) made out of 16 SWG CRCA Sheet, sound absorbing material Rockwool of 64 density &amp; 100 mm thick conforming to IS:8183 / PU Foam of 40 Density - at least 40 mm. The resin bonded rockwool covered from inside the canopy by perforated sheet with 3/4 mm holes, sound level not more than 75 dB at a distance of 1 mtr, as per PVCT norms.DG set should have in built fuel tank capacity of minimum 8 hrs of continous running capacity on full load . Erection, commissioning and satisfactory testing as per requirement with first filling of fuel (minimum up to the 80% of fuel tank capacity), oil, etc. with guarantee / Warrantee of complete system for Two years. &amp; with obtaining all necessary certificate from Electrical Inspector. The Capacity and Ratings of DG sets are as below. (As per new CPCB4+ Emission norms Engine With - Turbo Charger, EGR (Exhaust Gas Recirculation), CRS (Common Rail Fuel System), DOC (Diesel Oxidation Catalyst), SCR (Selective Catalytic Reduction), Integrated wiring harness connected to ECU .) (L) Continuous rating of 100 KVA ,BHP not less than 126 BHP</p>	1.00	Each	968209.23	968209.23

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SCHEDULE-B1					
2	<p>Providing &amp; erecting approved make AMF control panel suitable for following size of 3 phase, 415 V., 50 cycles, A.C. diesel generating set complete of scope as detailed below:</p> <p>1) Power module: A pair of electromechanically interlocked contactors (for mains &amp; generator) Overload relay for generator contactor Neutral contactor for mains and generator Power socket for connections.</p> <p>2) Control and metering module: Line voltage monitor. Generator voltage monitor Ammeter 3 items attempt start facility. Air circuit breakers/MCB/MCCB of suitable rating for auto/manual operation. Auto/manual switch. Emergency stop push buttons. Manual start push button. frequency meter. Engine hour meter. Two earthing studs. 3) Protection module: The engine shutdown in the unlikely event of Low lube oil pressure High cylinder head temperature. V belt failure.</p> <p>4) Indicators with alarm Load on generator.</p> <p>5) Indicators Load on mains Engine fails to start . Emergency stop battery charger.</p> <p>The AMF Panel of following capacity (C) AMF Control Panel for100 KVA/125 KVA3 phase DG Set</p>	1.00	Each	121201.01	121201.01
3	<p>Supply, installation, testing and commissioning of 100 KVA, 3-Phase, Oil Cooled Automatic Servo Voltage Stabilizer suitable for indoor installation, complete with microprocessor based control system, input MCCB protection, bypass changeover switch, digital LCD display for input/output voltage and load current indication, over voltage, under voltage, overload, short circuit and single phasing protections, AC synchronous stepper motor driven servo mechanism, individual phase dimmers and buck boost transformers, busbar connection arrangement, shunt trip cut-off facility, earthing bolt, powder coated enclosure conforming to IS:9815, suitable for input voltage range 330–500 Volt AC and output 415 Volt AC <math>\pm 1\%</math>, frequency 47–63 Hz, oil cooled with first filling of transformer oil conforming to IS:335, including all accessories, internal wiring, mounting arrangement, labour, testing and commissioning, Online Support will be provided (24 X 7) without any extra cost, complete as directed by the Engineer-in-Charge. Transportation, loading, unloading, installation, and all incidental works complete.</p>	1.00	unit	210948.60	210948.60
4	<p>Supplying and erecting triple pole &amp; neutral 440V / 500V panel mounting Copper Busbars with four equal Nos. of electrolyte bus having current density not more than 1.6 Amp. / sq.mm (Rated current / cross section area) duly wrapped with colour insulating tape for phase sequence of following current carrying capacity, erected with necessary bus bar supports /insulators, main cable socket to each bar, erected in existing cubical panel with necessary connections. (B) Suitable for 200 Amp. capacity</p>	10.00	Rmt	3202.71	32027.10
5	Providing and erecting Annealed bare Copper wire 8 to 16 SWG.	3.00	kg	794.87	2384.61
6	Providing and erecting HOT deep Galvanised iron strip wire 8 to 16 SWG.	3.00	kg	77.77	233.31
7	Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables (E) 3 1/2 core 95 Sq. mm ( 50 Sq. mm 1/2 core)	100.00	Mtr.	490.86	49086.00

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SCHEDULE-B1					
8	<p>Supplying &amp; erecting in earthen pit of minimum bore dia. 225mm size approved make Safe Earthing Electrode consisting Pipe-in-Pipe Technology as per IS 3043-1987 made of corrosion free hot dipped G.I. Pipes having Outer pipe dia of 80 mm having 80-200 Micron galvanising, Inner pipe dia of 40 mm having 200-250 Micron galvanising, connection terminal dia of 14 mm with constant ohmic value surrounded by highly conductive compound with high charge dissipation suitable for following type of applications with chamber and heavy duty cover (A)(approved make OEM has to submit test certificate including value of earth resistance of installation duly stamped and signed by agency and officer Incharge has to ensure the value of earthing resistance mentioned in test Certificate) &amp; having back filling compound of (B) Inner chemical (CCM Compound)- Resistivity:- 0.2 ohm / meter testing as per IEC 62561-2017, Voltage drop:- &lt; 1 volt at no load &amp; dry form, Sulphur content:- &lt;2%(C) Back fill Compound :- Earthing compound should be capable to retain moisture for long time Necessary test report must be submitted by Agency.</p> <p>[C] For Electrical Installation covering Transformer Neutrals, Lightning arrester Earthing, A.C.Plant &amp; Sensitive Computer System(like Automation, SCADA)i.e. independent Earthing located in other than normal soil i.e. Soft Rock, Marshy Soil etc..</p> <p>-Length of Pipe : 3 Mtrs.</p> <p>-Back filling Compound :2 nos Bags of 25 Kg.</p>	4.00	Each	10593.89	42375.56
9	Making trench in soft soil of suitable width of 90 cm deep for laying cable or locating the fault all over the run and back filling the same and making the surface as normal ground.	40.00	Mtr.	55.55	2222.00
10	Providing & laying approved make Double walled corrugated pipes (DWC) of polyethylene(conforming to IS 14930 II )with necessary connecting accessories of same material at required depth in existing trench for laying of cable. below ground / road surface for enclosing cable (D)120 mm outer dia.	40.00	Mtr.	137.36	5494.40
Total Amount Rs.					1434181.82

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