

Government eProcurement System
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Tender Title: Replacement of existing DG sets by 02 Nos. 320 KVA DG sets at Jamnagar Airport.
Tender ID: 2024_AAI_198373_1

Tender Inviting Authority: SM (E E), AAI, Rajkot International Airport, Rajkot.

Name of Work: Replacement of existing DG sets by 02 Nos. 320 KVA DG sets at Jamnagar Airport.

Contract No: AAI/RAJ/SM(E-E)/NIT-03/24-25

SCHEDULE OF WORK / ITEM(S)

Sl.No	Description of Work / Item(s)	No.of Qty	Units	Estimated Rate
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1.00	Supply Installation Testing Commissioning of "Silent Type" Radiator Cooled,"Outdoor Type" Diesel Generating set along with having Prime mover power rating of 320 KVA at 0.8 lagging power factor, 415 volts, 1500 RPM, 3 phase system, for 0.85 load factor and consisting of the following including providing necessary CEA,CPCB approval etc. as required: (a) Diesel Engine: 4 stroke, electronic governor, radiator cooled, electric start, of suitable BHP at 1500 RPM suitable for above output of alternator at 50 Degree C, 50% RH & at 500 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.The DG set shall comply CPCB-IV Plus norms. (b) Engine mounted Instrument Panel fitted with having digital display for following: (i) Start- stop switch with Key. (ii) Water Temperature Indication. (iii) Lubrication Oil Pressure Indication. (iv) Lubrication Oil Temperature Indication. (v) Battery Charging Indication. (vi) RPM Indication. (vii) Over Speed Indication. (viii) Low Lub Oil Trip Indication. (ix) Engine Running Hours Indication. (c) Alternator: Synchronous alternator rated for 320 KVA, 415 volts at 1500 RPM, 3 phase 50 Hz, AC supply with 0.8 lagging power factor at 50 Degree C, 50% RH & at 500 Meter MSL. The alternator shall be having SPDP enclosure, brushless, continuous duty, self-excited and self-regulated through AVR, conforming to IS:4722 / BS 2613 suitable for tropical conditions and with class-F/H insulation. (d) Base Frame & Foundation: Both the engine and alternator shall be mounted on suitable base frame made of MS channel which shall be installed on suitable cement concrete foundation with necessary reinforcement including vibration isolation arrangement as per recommendations of	2.00	Each
2.00	Supplying and fixing exhaust gas piping (suitable for 320 KVA D.G. Set) of size 250 mm nominal dia welded black MS pipe (6 mm thick) conforming to IS:3589 cut to required lengths and installed with necessary bends, supports and clamps, anti-vibration mountings, insulation of exhaust system with loosely bound resin (LBR) mattress / mineral wool/ Rockwool of 50 mm thick, wiremesh & 0.6 mm thick aluminum cladding for the complete portion etc. as required as per specifications.	15.00	Each

DOSHI ELECTRIC ENGG. CO. (GSTN-24AAEFD3355K1Z1) BID ID -716483		TARUN ELECTRICALS (GSTN-08ANCPM5157F1Z0) BID ID -716802		PRIME ENGINEERS (GSTN-24ANMPS9053Q1Z0) BID ID -717038		Mona Generator Services Pvt. Ltd. (GSTN-07AAFCM4263P1Z2) BID ID -717151		Ascent Electrification Engineers (GSTN-24AAOFA2574R1ZU) BID ID -717184		GVD ENGINEERS & CONTRACTOR(GSTN-NA)--717069	
Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
2930000.00	5860000.00	2640400.00	5280800.00	2750000.00	5500000.00	2610348.50	5220697.00	3128575.00	6257150.00	2700000.00	5400000.00
5000.00	75000.00	9316.00	139740.00	9000.00	135000.00	4031.00	60465.00	10000.00	150000.00	6000.00	90000.00

L1 Amount	L1 Vendor
5220697.00	Mona Generator Services Pvt. Ltd.
60465.00	Mona Generator Services Pvt. Ltd.

3.00	Providing & fixing for MS support structure including suitable civil foundation for exhaust gas pipes of DG Sets along horizontal and vertical runs and monkey ladder upto the height (as per CPCB norms) including cutting, welding etc and applying two coats of red oxide and two coats of synthetic enameled paint of colour and shade as directed by AAI. The design of the support structure shall be done by the contractor and shall be as per CPCB norms. Design shall be got approved from the AAI before execution as required.	400.00	Kg
4.00	Fabricating, Installing, Testing and Commissioning of Automatic Mains Failure (AMF) control panel having 50 kA short circuit breaking capacity, suitable for 320 KVA Silent Type DG set complete with relays, timers, set of CTs for metering & protection and energy analyser to indicate current, phase & line voltages, frequency, power factor, KWH, KVARH & provision for overload, short circuit, restricted earth fault, under frequency, interlocking arrangement etc. Panel shall be totally enclosed, dust and vermin proof, front pattern, free floor standing type with four pole by pass arrangement including the following (Including dismantling of Existing AMF panel and installation of new panel at the same location: (a) ACB Mains : (i) 630 A, 4-pole Microprocessor based release (for O/C, E/F & Shunt Trip) motorised electrically operated EOD type ACB having 50 kA short circuit breaking capacity with suitable 4P contractor for Main supply - 01 set (b) ACB Alternator : (i) 630 A, 4-pole Microprocessor based release (for O/C, E/F & Shunt Trip) motorised electrically operated EOD type ACB having 50 kA short circuit breaking capacity with suitable 4P contractor for DG supply - 01 set (c) Microprocessor based AMF Module incorporating : (i) Supply Failure Timer. (ii) Restoration Timer. (iii) 3 Impulse automatic engine Start / Stop logic. (iv) Mains / Generator Voltage & Frequency Sensing. (v) Provision for over load, Short circuit, restricted earth fault, under frequency etc. (d) Metering : (i) Combined meter for Voltage / Ampere / Frequency. (ii) Combined meter for KW / Power Factor / KVA. (iii) Electronic KWH Meter. (iv) 3 sets of CT's 15 P 10 accuracy for protection and 15 VA class-I for metering. (v) Control MCB's (e) Indication (LED Type) (f) DG ON	2.00	Each
5.00	Supply of 3.5 Core x 300 Sqmm size 1.1 KV grade XLPE insulated, PVC sheathed, armoured Aluminium conductor cable conforming to IS 7098 (Part 1) amended upto date as required.	240.00	Mtr
6.00	Supplying of 12 core X 2.5 Sqmm of 1.1 kV grade PVC insulated copper conductor armoured stranded Control Cable conforming to IS: 1554 complete as required and as per specifications.	140.00	Mtr
7.00	Supplying and making end termination with brass compression gland and aluminium lugs for 3.5 core X 300 sq. mm (70 mm) size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.	8.00	Each
8.00	Supplying and making indoor Control Cable end Termination of 12 core X 2.5 Sqmm sizes 650V grade LT XLPE insulated, HR PVC sheathed, stranded copper conductor, Armoured cables, including cost of tinned copper heavy duty crimping lugs, Single compression heavy duty glands, insulation tape, Name Plate at Both Ends and all necessary material to complete the termination.	4.00	Mtr

120.00	48000.00	104.00	41600.00	105.00	42000.00	179.00	71600.00	195.00	78000.00	135.00	54000.00
600000.00	1200000.00	471500.00	943000.00	345000.00	690000.00	584340.00	1168680.00	581325.00	1162650.00	170000.00	340000.00
1400.00	336000.00	1320.00	316800.00	1750.00	420000.00	1332.00	319680.00	1354.00	324960.00	1400.00	336000.00
400.00	56000.00	377.00	52780.00	950.00	133000.00	427.00	59780.00	435.00	60900.00	250.00	35000.00
100.00	800.00	1127.00	9016.00	1750.00	14000.00	1800.00	14400.00	2500.00	20000.00	1050.00	8400.00
300.00	1200.00	283.00	1132.00	900.00	3600.00	1458.00	5832.00	1000.00	4000.00	250.00	1000.00

41600.00	TARUN ELECTRICALS
340000.00	GVD ENGINEERS & CONTRACTOR
316800.00	TARUN ELECTRICALS
35000.00	GVD ENGINEERS & CONTRACTOR
800.00	DOSHI ELECTRIC ENGG. CO.
1000.00	GVD ENGINEERS & CONTRACTOR

9.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of o size above 185 sq. mm and upto 400 sq. mm in the existing RCC/ HUME/ METAL/HDPE pipe/in existing trench pipe as required.	70.00	Mtr
10.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of size above 185 sq. mm and upto 400 sq. mm in the existing masonry open duct as required.	150.00	Mtr
11.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of upto size upto 35 sq. mm in the existing RCC/ HUME/ METAL/HDPE/in existing trench pipe as required.	100.00	Each
12.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of size upto 35 sq. mm in the existing masonry open duct as required.	20.00	Mtr
13.00	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	4.00	Set
14.00	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 meter below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50 mm)	150.00	Mtr
15.00	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit / submain wiring / cable as required.	200.00	Mtr
16.00	Providing, laying and fixing following dia G.I. pipe (medium class) in ground complete with G.I. fittings including trenching (75 cm deep)and re-filling etc as required. 50 mm	100.00	Mtr
17.00	Supply of DWC HDPE Pipe of size 90 mm dia (OD-90 mm & ID-76 mm nominal), as per IS:4984 of complete as required.	70.00	Mtr
18.00	Laying of 90 mm dia (OD-90 mm & ID-76 mm nominal) pipe direct in ground (below 75 cm) including excavation of suitable trench and refilling the trench etc complete as required.	70.00	Mtr
19.00	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	100.00	Mtr

70.00	4900.00	126.00	8820.00	165.00	11550.00	122.00	8540.00	1.00	70.00	110.00	7700.00
50.00	7500.00	59.00	8850.00	115.00	17250.00	100.00	15000.00	1.00	150.00	100.00	15000.00
60.00	6000.00	35.00	3500.00	45.00	4500.00	78.00	7800.00	1.00	100.00	50.00	5000.00
40.00	800.00	26.00	520.00	45.00	900.00	78.00	1560.00	1.00	20.00	40.00	800.00
18000.00	72000.00	14616.00	58464.00	27500.00	110000.00	19614.00	78456.00	19172.00	76688.00	16000.00	64000.00
300.00	45000.00	136.00	20400.00	190.00	28500.00	196.00	29400.00	175.00	26250.00	120.00	18000.00
25.00	5000.00	33.00	6600.00	75.00	15000.00	30.00	6000.00	22.00	4400.00	50.00	10000.00
600.00	60000.00	566.00	56600.00	575.00	57500.00	572.00	57200.00	517.00	51700.00	600.00	60000.00
200.00	14000.00	160.00	11200.00	215.00	15050.00	124.00	8680.00	201.00	14070.00	120.00	8400.00
150.00	10500.00	113.00	7910.00	65.00	4550.00	89.00	6230.00	1.00	70.00	150.00	10500.00
900.00	90000.00	917.00	91700.00	750.00	75000.00	1370.00	137000.00	1110.00	111000.00	900.00	90000.00

70.00	Ascent Electrificati on Engineers
150.00	Ascent Electrificati on Engineers
100.00	Ascent Electrificati on Engineers
20.00	Ascent Electrificati on Engineers
58464.00	TARUN ELECTRICALS
18000.00	GVD ENGINEERS & CONTRACTOR
4400.00	Ascent Electrificati on Engineers
51700.00	Ascent Electrificati on Engineers
8400.00	GVD ENGINEERS & CONTRACTOR
70.00	Ascent Electrificati on Engineers
75000.00	PRIME ENGINEERS

Total in Figures

7892700.00

7059432.00

7277400.00

7277000.00

8342178.00

6553800.00

Lowest Amount Quoted BY: GVD ENGINEERS & CONTRACTOR(6553800.00)