

Notice Inviting Tender (PART-II)

SCHEDULE OF QUANTITY AND RATES QUOTED

Name of Work: - Supplying, Installation, Testing and Commissioning of 125 KVA Silent Type DG Set with AMF Panel at CRR I Staff Colony , Maharani Bagh, New Delhi-65

S.NO	Description of Items	QTY	UNIT	RATE (Rs.)		AMOUNT (Rs.)
				In Figure	In Word	
	125 KVA/100 KW Silent Diesel Generator Set					
SUB-Head 'A'						
1.	Supplying, Installation, Testing and Commissioning of 'Silent Type' Diesel Generator Set of 125 KVA, 415 volts at 1500 RPM, 0.8 lagging power factor at 415 V suitable for 50 Hz, 3 phase system with 0.85 Load Factor and Automatic Mains Failure (AMF) control panel including auto by- pass panel along with Prime Power Rating from Original Equipment Manufacturer (OEM) Rating which shall consist of the following:	01	Set			
a)	Diesel Engine: Diesel engine 4 stroke water cooled, electric start of suitable BHP at 1500 RPM suitable for above 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 10 hours of continuous operation. The engine will be fitted complete with all the required accessories.					
b)	Engine Mounted Instrument panel fitted with and 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 lubricating Oil trip indication					
IX.	Engine Hours indication					
c)	<p>Alternator: Synchronous alternator rated at 125KVA, 415 volts at 1500 RPM, 3 phase 50 Hz, AC supply with 0.8 lagging power factor at 40 Degree C, 50% RH & at 1000 Meter MSL. The alternator shall have SPDP enclosure, brushless, continuous duty, self-excited and self-regulated through AVR confirming to IS:4722/BS 2633 suitable tropical conditions and with class-F/H insulation.</p>					
d)	<p>Base Frame & Foundation Base Frame & Foundation: Both the engine and alternator shall be mounted on suitable base frame made of MS channel with necessary reinforcement which shall be installed on suitable cement concrete foundation and vibration isolation arrangement as per recommendations of manufacturer.</p>					
e)	<p>Fuel Tank: Fuel Tank provided at the base of silent DG set shall have required capacity with air breather, drain plug and all standard accessories complete with valves, level indications with the help of fuel gauge meter and accessories as per OEM.</p>					
f)	<p>Exhaust System As per OEM</p>					
g)	<p>Starting System: 12V/24V DC starting system comprising of starter motors, voltage regulator and arrangement for initial excitation complete with suitable nos. of batteries as per OEM (Maintenance free) as required in terms of specifications.</p>					
h)	<p>Acoustic and weather proof enclosure with arrangement for fresh air intake for cooling of the engine & alternator, extraction, discharging hot air in to the atmosphere as per specifications.</p>					

	Note: (1) DG set shall be as per the latest norms of Central Pollution Control Board (CPCB). (2) The DG Set, AMF Panel & Acoustic enclosures shall be from OEM of diesel engine & alternator only.					
Total of SUB-Head 'A'						
SUB- Head 'B'						
2	Supplying of 4 x 120 sqmm PVC insulated and PVC sheathed / XLPE aluminium conductor armoured power cable of 1.1 KV grade with testing report all complete as required and direction of the Engineer-in-Charge.	80	Meter			
3	Laying of one number additional PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade upto 120 Sqmm size direct in ground in the same trench in one tier horizontal formation including excavation, sand cushioning, protective covering and refilling the trench etc as required	40	Meter			
4	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of upto 120 Sqmm in the existing RCC/ HUME/ METAL pipe as required.	40	Meter			
5	Supplying and making end termination with brass compression gland and aluminium lugs for 3.5 x 120 sqmm PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.	12	Each			
Total of Sub-Head 'B'						
Sub-Head 'C'						
6	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 meter long etc. with charcoal/ coke and salt as required.	2	Set			

7	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 meter long etc. with charcoal/ coke and salt as required.	4	Set			
8	Providing and fixing 25 mm x 5 mm G.I. strip on surface or in recess for connections etc. as required.	40	Meter			
9	Providing and fixing 25 mm x 5 mm copper strip on surface or in recess for connections etc. as required.	40	Meter			
10	Providing and fixing M.V. danger notice plate of 200 mm x 150 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	2	Each			
11	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	10	Meter			
12	Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required.	10	Meter			
13	Providing and fixing following rating and breaking capacity and pole MCCB with thermo magnetic release and terminal spreaders in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required. (a) 250 A, 36kA, FPMCCB	2	Each			
Total of Sub-Head 'C'						

Sub-Head 'D'						
14	Steel work, as per the following details, in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete. Hot finished welded type tubes (100 mm dia)	610	Kg			
15	Structural steel work, as per the following requirements, riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete. Strips (40x6)	40	Kg			
16	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	26	Sqm			
17	Finishing with Epoxy paint (two or more coats) at all locations, On steel work, prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.	35	Sqm			
Total of SUB-Head 'D'						

Sub-Head 'E': Salvage Value of 45 KVA & 12.5 KVA DG Set						
18	Salvage value of Existing Old DG set capacity 45 KVA, 415 V, 3-phase, 50Hz, along-with electrical panel, fuel tank only located at CRRl Staff Colony, Maharani Bagh, New Delhi.	01	Set			
19	Salvage value of Existing Old DG set capacity 12.5 KVA, 415 V, 3-phase, 50Hz, along-with electrical panel, fuel tank only located at CRRl Staff Colony, Maharani Bagh, New Delhi	01	Set			
	NOTE:- Firm will be allowed to take away the above DG sets only after satisfactory S/I/T/C of new 125 KVA Silent Type DG set with AMF panel (Sub-Head 'A') .					
Total of Sub-Head 'E'						
Total of Sub-Heads (A+B+C+D)						
Net Tendered Value(After deducting the salvage value of old DG sets) (A+B+C+D-E)						

**NAME AND SIGNATURE OF TENDERER
WITH FIRM'S SEAL**