



INDIAN INSTITUTE OF TECHNOLOGY, MADRAS
ENGINEERING UNIT

CHENNAI – 600 036

Price Bid (Volume 2)

T. No 25/2012-13/Eldb

Name of the work : **Providing Acoustic enclosure and shifting of 63kVA DG set at Vindhya mess in IIT, Madras**

Date of Submission of Technical & Price bid : **03.00 pm on 24/09/2012**

Date of opening of Technical bid : **03.10 pm on 24/09/2012**

Date of opening of Price bid : **Will be intimated later.**

Bid Submitted to : **The Executive Engineer (E),
Engineering Unit,
Administrative Block III Floor,
IITM, Chennai-36**

Consultant (Elec)

Executive Engineer (Elec)

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TENDER DOCUMENT FOR Providing Acoustic enclosure and shifting of 63kVA DG set at Vindhya mess in IIT, Madras
VOLUME-2 (PRICE BID)
BILL OF QUANTITIES
Other volume:
Vol-1: Notice inviting tenders, Conditions of Contract, Additional specifications, General Conditions of Contract , list of approved makes etc.,

INDIAN INSTITUTE OF TECHNOLOGY MADRAS,CHENNAI 36					
Name of work : Providing Acoustic enclosure and shifting of 63kVA DG set at Vindhya mess in IIT, Madras					
Tender No.25/2012-13/Eldb					
Bill of Quantities					
Sl.No	Description	Qty	Unit	Rate	Amount
1	DG Set Removing the DG set from the existing position, shifting the same to new location upto 300mts and positioning, testing and commissioning the same as required.	1	Set		
(Rate in words Rupees.....)					
2	Supplying and providing of following to the of existing CROMPTON GREAVES Diesel Engine & STAMFORD alternator of silent type Generating set along with having prime power rating of 63kVA 415 volts at 1500RPM, 0.8 lagging power factor at 415 volts suitable for 50 Hz, 3 Phase system & for 0.85 load factor and consisting of the following:				
a)	Fuel Tank Daily service tank of 200 litres capacity fabricated out of 3mm thick M.S sheet complete with all standard accessories and fuel piping between fuel tank and diesel engine with MS class 'C' pipes of suitable dia. Complete with valves, level indications & accessories as required as per standard specification.	1	Job		
(Rate in words Rupees.....)					
b)	Exhaust System Dry exhaust manifold with residential exhaust silencer.	1	Job		
(Rate in words Rupees.....)					
c)	Suitable PCC foundation for the above DG set including earth work excavation, refilling and consolidation etc., as required at site.	1	Job		
(Rate in words Rupees.....)					
d)	Acoustic and weather proof enclosure with arrangements for fresh air intake for cooling of the engine & alternator, extraction, discharging hot air in to the atmosphere as per specifications.	1	Job		
(Rate in words Rupees.....)					

3	<p>AMF PANEL Supplying, fabricating, installation and commissioning of automatic mains failure control including auto by pass panel suitable for 63kVA silent type DG set complete with relays, timers, set of CTs for metering & protection and energy analyser to indicate currents, phase and line voltages, frequency, power factor, kWh, kVARH & provision for overload, short circuit, restricted earth fault, under frequency control cabling from AMF to diesel engine and elsewhere if required. All complete and interlocking including the following.</p>				
	<p>a) 2 Nos. 125 amps, 25 KA, 4 pole MCCB electronics release front operating kit as incomer & 4 Nos. 63 amps, 25 KA, TPN electronics release MCCB with front operation kit as outgoing.</p>				
	<p>b) Auto/ Manual/ Test/ off selector switch.</p>				
	<p>c) 3 sets of current transformer 15 P 10 accuracy for protection and 15 VA class 1 for metering.</p>				
	<p>d) Energy analyser unit to indicate current voltage frequency power factor and kWh.</p>	1	Each		
	<p>e) Indicating lamps for load on mains and load on set.</p>				
	<p>f) Fuse for instruments.</p>				
	<p>g) Battery charger, complete with transformer/ rectifier, DC voltmeter and ammeter selector switch for trickle, off and boost and current adjustments.</p>				
	<p>h) NB 2 relay for AMF operation to facilitate the main supply failure monitor and the following controls.</p> <ul style="list-style-type: none"> i. Supply failure control ii. Resoration timer iii. Control unit with three impulse automatic engine start/ stop and failure to start lockout. iv. Impulse counter with locking and rest facility. v. Audio/ visual annunciation for <ul style="list-style-type: none"> i) High water temperature ii) Low lubricating oil pressure iii) Engine over speed iv) Engine fails to start v) Full load/ maximum load warning 				
<p>(Rate in words Rupees.....)</p>					

4	Supplying and laying of 10 core 2.5 sr.mm pvc insulated copper conductor control armored UG cable in the existing trench as required.	30	Each		
(Rate in words Rupees.....)					
5	Supplying and laying of 3.5 core 70 sq.mm XLPE aluminium conductor armoured UG cable direct in ground including excavation sand cushioning protective covering and refilling the trench etc., as required.	30	Each		
(Rate in words Rupees.....)					
6	Supplying and making end termination with brass cable gland and aluminium/ copper lugs for the following size of the pvc/ XLPE aluminium/ copper conductor UG cable 1.1kV grade as required.				
a	3.5 core 70 sq.mm XLPE aluminium conductor armoured UG cable.	2	Each		
(Rate in words Rupees.....)					
b	10 core 2.5 sq.mm copper conductor pvc insulated armoured UG cable	2	Each		
(Rate in words Rupees.....)					
7	Earthing with copper earth plate 600mm x 600mm 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	Each		
(Rate in words Rupees.....)					
8	Supplying and laying of 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 overloading and with 2 sets of brass nut, bolt & spring washer spaced at 50mm).	60	Each		
(Rate in words Rupees.....)					

9	Providing and fixing 25 mm x 5 mm G.I strip on surface or in recess for connection etc., as required.	60	Each		
(Rate in words Rupees.....)					
	TOTAL				

Total Amount in words Rupees

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Signature of the Contractor

Consultant (Elect)

Executive Engineer (E)