ASSEMBLY OF DIESEL GENERATOR SET

Introduction

Diesel Generator set is used to generate electricity for meeting the electricity requirement of small establishments such as commercial buildings, Hotels, Railway Stations, Telephone Exchange, Shops etc. when there is a power supply failure from the State Electricity Board or other powe supply undertakings. The Diesel Generator sets proposed in this project profile are of lower capacity only i.e. below 7.5 kVA. The prime mover of the Generator set will be a diesel engine and the prime mover will be coupled to an alternator (single phase for small units). There will be a control panel to control the on/off operation/change over from mains supply to Generator set supply etc. Generator sets of higher rating has to be started with battery starters. Diesel Generator sets of smaller rating can be started by cranking.**Process of Manufacture :** The proposed unit is doing the assembly of diesel generator sets with necessary control panel as per the requirement of the customer. The load requirement of the customer is studied in consultation with the customer.Any special requirements such as minimum start up period,fluctuations of load etc.are noted.A suitable alternator to meet the load requirement is procured from an alternator manufacturer.A diesel engine suitable for the alternator is also selected and procured from the diesel engine manufacturer.The diesel engine and alternator are coupled and fixed on a frame. A control panel for starting the engine using battery bank, isolating the mains while the alternator is.

1 Name of the Product : ASSEMBLY OF DIESEL GENERATOR SET

2 Project Cost :

a	Capital Expenditure			
	Land	:		**Own**
	Workshed in sq.ft		Rs.	72,000.00
	Equipment	:	Rs.	193,420.00
	Pendent opeated Electric Hoist 5Ts -1 No.Welding Transformer 2 kVA-1 No,Gas cutting equipment-1 No, Flexible shaft grinder-1 No.,Bench Drilling Machine 1/2" Cap-1 No.,Set of tools such as spanners, Screw drivers, crimping tools etc.-1 No., Resistance load bank for loading the Alternator (10 kW capacity) - 1No., Testing panel for testing-1 No.			
	Total Capital Expenditure		Rs.	265,420.00
b	Working Capital		Rs.	120,000.00
	TOTAL PROJECT COST :		**Rs.**	**385,420.00**

3 Estimated Annual Production Capacity: **(Rs. in Lakhs)**

Sr.No.	Particulars	Capcity inQuintals	Rate	Total Value
1	Diesel generator set	24.00		725.16
TOTAL		**24.00**	**0.00**	**725.16**

4 Raw Material : Rs. 200,400.00

5 Lables and Packing Material : Rs. 20,000.00

6 Wages (2-Skilled & 2-Unskilled) : Rs. 288,000.00

7 Salaries (MANAGER-1) Rs. 120,000.00

8	Administrative Expenses	:	Rs.	18,000.00
9	Overheads	:	Rs.	20,000.00
10	Miscellaneous Expenses	:	Rs.	6,000.00
11	Depreciation	:	Rs.	22,942.00
12	Insurance	:	Rs.	2,654.00
13	Interest (As per the PLR)			
	a. C.E.Loan	:	Rs.	34,505.00
	b. W.C.Loan	:	Rs.	15,600.00
	Total Interest		Rs.	50,105.00
14	Working Capital Requirement	:		
	Fixed Cost		Rs.	181,159.00
	Variable Cost		Rs.	544,000.00
	Requirement of WC per Cycle		Rs.	120,860.00

15 Cost Analysis

Sr.No.	Particulars	Capacity Utilization(Rs in '000)			
		100%	60%	70%	80%
1	Fixed Cost	181.16	108.70	126.81	144.93
2	Variable Cost	544.00	326.40	380.80	435.20
3	Cost of Production	725.16	435.10	507.61	525.73
4	Projected Sales	1100.00	660.00	770.00	880.00
5	Gross Surplus	374.84	224.90	262.39	299.87
6	Expected Net Surplus	352.00	202.00	239.00	277.00

Note :
1. All figures mentioned above are only indicative.
2. If the investment on Building is replaced by Rental then
   a. Total Cost of Project will be reduced.
   b. Profitability will be increased.