



INTRODUCTION :

Diesel Generator set is used to generate electricity for meeting the electricity requirement of small establishments such as commercial buildings, Hostels, Railway Stations, Telephone Exchange, Shops etc. When there is a power supply failure from the State Electricity Board or other power supply undertakings. The Diesel Generator sets proposed in this project profile are of lower capacity 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 for the on / off operation / change over from mains supply to Generator set supply etc. Generator sets of higher rating have 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 produced from the diesel engine manufacturer. The diesel engine and alternator are coupled and fixed in a frame. A control panel for starting the engine using battery bank, isolating the mains while the alternator is.

1. Name of the Project : 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 operated Electric Hoist 5Ts – 1 No. Welding Transformer 2 kVA-1 No Gas Cutting equipment – 1 No. Flexible shaft grinder – 1 No. Bench Drilling Machine ½” 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) – 1 No, 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 000)

Sr. No.	Particulars	Capacity in Quintals	Rate	Total Value
1.	Diesel Generator Set	24.00		725.16
	TOTAL :-	24.00	0.00	725.16

- 4. Raw Materials : Rs. 200,400.00
- 5. Labels and Packing Material : Rs. 20,000.00
- 6. Wages (3-Skilled & 3-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 : Rs.181,159.00
 - Fixed Cost
 - Variable Cost : Rs. 544,000.00
 - Requirement of W.C.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.

- 3. If the investment on Building is replaced by Rental then.
 - a. Total Cost of Project will be reduced.
 - b. Profitability will be increased.