Typical Calculation of Running Cost per unit (kWH) for DG set

Cost of Power for 500kVA DG set

Typical calculation

Sl No	**Description**	
1	DG Capacity	500kVA
2	in kW	400kW
3	Average load@75%	300kW
4	Units generated for 500hrs	150000
5	Units Generated for 2000hrs	600000
A	**Fuel Cost**	
a1	Units generated per lt of HSD	4
a2	Cost of Diesel per lt in Rs	45
a3	**Fuel Cost per Unit in Rs**	**11.25**

B	**Lub Oil Cost**	
b1	Oil pan capacity with filters in lts	48
b2	Cost of oil per lts in Rs	200
b3	Cost of oil change @ 500 hrs	9600
b4	Aprox oil consmption per hr in lts	0.05
b5	Total oil consumption for 500 hrs in lts	25
b6	Cost of Oil Top up	5000
b7	Total oil cost in Rs	16900
b8	**Lub oil cost per unit in Rs**	**0.11**
C	**Cost of B check**	
c1	Cost of B check kit to be changed @ 500 hrs	12500
c2	**Cost per unit**	**0.08**
D	Cost of Air filter to be changed @ 2000hrs in Rs	13000
d1	**Cost per unit**	**0.02**
E	Cost of coolant to be replaced in two years (4000hrs aprox)	27600
e1	**Cost per unit**	**0.02**
	Total Running Cost per unit (a3+b8+c2+d1+e1)	**Rs11.48**

98% of the total running cost is the cost of Fuel!