

Calculation of I.R.R for Keeranatham 110 KV SS in Coimbatore/North EDC
Internal Rate of Return **28.36 %**

Rs in Lakhs

Sl No.	Year	Capital charges Exp.RS in lakhs	O&M charges @ 5% d @ 6%	Demand in MVA	Addl Demand in MVA	Addl Energy in LU per year @60% LF	Cost of Energy	Total Exp. Rs. in lakhs Col.	Revenue from sale of addl. Energy	Revenue from savings in line loss	Net cash flow (10+11-9)	Discount Cash Flow Factor	Net present (12*13)
1	06-07	847.66	0	29.90	1.79	84.86	257.79	847.66	304.45	0.00	-847.66	1.000000	-847.6589
A	07-08	847.66	42.38	31.69	1.79	84.86	257.79	300.18	304.45	0.00	4.27	0.779045	3.3289
1	08-09		44.93	33.60	3.70	174.82	562.92	607.85	664.80	0.00	56.95	0.606911	34.5648
2	09-10		47.62	35.61	5.71	270.17	922.16	969.78	1089.05	0.00	119.27	0.472811	56.3927
3	10-11		50.48	37.75	7.85	371.24	1343.17	1393.65	1586.26	0.00	192.61	0.368341	70.9461
4	11-12		53.51	40.01	10.11	478.38	1834.65	1888.16	2166.69	0.00	278.53	0.286954	79.9250
5	12-13		56.72	42.41	12.51	591.95	2406.40	2463.12	2841.91	0.00	378.79	0.223550	84.6795
6	13-14		60.12	44.96	15.06	712.33	3069.52	3129.64	3625.04	0.00	495.40	0.174155	86.2772
7	14-15		63.73	47.66	17.76	839.93	3836.54	3900.27	4530.88	0.00	630.61	0.135675	85.5582
8	15-16		67.55	50.00	20.10	950.81	4603.57	4671.12	5436.73	0.00	765.61	0.105697	80.9222
9	16-17		71.61	50.00	20.10	950.81	4879.79	4951.39	5762.94	0.00	811.54	0.082343	66.8246
10	17-18		75.90	50.00	20.10	950.81	5172.57	5248.48	6108.71	0.00	860.24	0.064149	55.1829
11	18-19		80.46	50.00	20.10	950.81	5482.93	5563.38	6475.23	0.00	911.85	0.049975	45.5693
12	19-20		85.28	50.00	20.10	950.81	5811.90	5897.19	6863.75	0.00	966.56	0.038932	37.6306
13	20-21		90.40	50.00	20.10	950.81	6160.62	6251.02	7275.57	0.00	1024.55	0.030330	31.0749
14	21-22		95.82	50.00	20.10	950.81	6530.26	6626.08	7712.11	0.00	1086.03	0.023629	25.6612
15	22-23			50.00	20.10	950.81				0.00	169.5318	0.018408	3.1207
		847.66		Residual value	20 %								0.0000

NOTE:

- The estimated cost of the project is RS. 847.66 lakhs with out IDC.
- The peak demand during 2005-06 is 29.90 MVA and the load growth assumed is 6%.
- Addl. Demand during a year = Demand during the year - Initial demand.
- Addl. Energy in Lakh Units = Addl. Demand in MVA X 1000 X 0.9 (PF) X 0.6 (LF) X 8760 Hrs / 1,00,000.
- During 2006-07 the cost at PH end (Including power purchase) is 243.02 Paise / KWHr and cost at HT end is 297.73 paise/KWHr. The average of the above two is taken as cost of energy ie 270.36 paise/KWHr and is e by 6% for the future years
- Average rate of realisation during 2006-2007 is 392.12 paise/KWHr and is escalated by 6% for the future years