

Study of Boilers –Major recommendation

Boilers	4 TPH (Husk)	4 TPH (Coal)	4 TPH (Husk) New
Efficiency	54 %	46 %	70%
Loading	56%	25 %	80 %
Evaporation Ratio	2.8	3.3	4.5
<i>Increase in Efficiency</i>		16 %	
<i>Fuel Savings</i>		22.8% [1-(old eff/new eff)]	
<i>Rice Husk = 596 MT</i>		<i>Coal = 663 MT</i>	

Milk Plant - Other recommendations

Sl.No.	Recommendation	Potential Savings		Investment (Rs.)	Payback Period (Months)	Action Required
		MT or kWh	Rs. (Lacs) <small>(1Lac=100 thousand)</small>			
1	Arresting Air Leakage	48703 kWh	2.065	Nil	Immediate	Proper planning & control
2	Reducing loading and unloading pressure	12090 kWh	0.512	Nil	Immediate	Reduce setting from 8.5-7.5 to 7.5-6.5
3	Switching off tube light during daytime in Lab	1188 kWh	0.05	Nil	Immediate	Ensure switching off
4	Replace 40W TL with 36W electronic choke TL	16891 kWh	0.72	400 per choke	Replace on failure.	Stop procuring 40 W TL
5	Replace filament indicator lamps by LED	8030 kWh	0.34	10,000	4	Replace immediately
6	Using daylight sensors in Streetlights	1815 kWh	0.08	5000	8	Install immediately

(1Lac=100 thousand)

Sr.	Areas and Energy conservation Measures	Savings in Energy, kWh/year	Annual Saving in Rs. (Lacs)	Investment in Rs. (Lacs)	Payback Period
1	Reducing the operating pressure to 7.5 bar (cut-off pressure) in Compressor	162,637	3.48	nil	Immediate
2	Installing Automatic Temperature Controller (ATC) in Cooling Tower Fans	548,722	11.74	2.00	2 Months
3	Replacement of fin-fan coolers by water cooled PHE (changeover from air cooling to water cooling)	961804.8	20.6	20.0	1 Year
4	Replacement of FTL with T-5 Tube light will improve lighting energy efficiency	47,434	1.02	4.12	4.06Years
5	Reduction of stages in multistage pumps (LP boiler opening valve operated at 40-80 % as per design)	380,160	8.14	6.00	9 Months
6	Reduction of stages in multistage pumps (HP boiler opening valve operated at 40-80 % as per design)	10,422,720	223	30.0	2 Months
7	Gravity Feeding of CT Makeup Water	245,520	5.25	2.0	5 months
	Total	127,68,998	273.23	64.12	