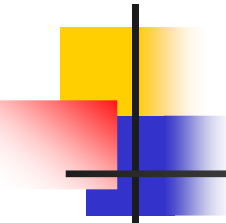


ENERGY CONSERVATION ACTIVITIES



**MSPGCL PARAS TPS,
250 MW, U-3**



LIST OF ENERGY CONSERVATION ACTIVITIES, (250 MW, U-3)

- Energy meters on all Transformers and 6.6 KV outgoing H.T. feeders.
- Replacement of conventional 150 W HPSV Lighting Fixtures by 85/95 W CFL.
- VFD for 120 KW Seal Air Fan Motors for Coal Mills.



ACTION TAKEN REPORTS

- Providing Energy Meters:- (MEAA-Meters for Energy Accounting & Auditing)

0.2 Class Energy Meters EMS (Energy Management Software System) having interfacing Computer Hardware Network (total 33 nos.) are procured and installed for 6.6 KV Transformers and Feeders.



Replacement of HPSV Lamps by CFL:-

- CFL Lamps of Make – OREVA,
Rating – 85 W.....75 Nos.
Rating – 90 W.....125 Nos.

Procured and Installation work is in progress.



VFD for seal Air Fan Motors:-

- Proposal initiated on Dtd. 13/04/2010 and submitted vide T.O.LT. No. 418, dtd. 13/04/2010 to Corporate Office for Administrative Approval.



SAVINGS IN TERMS OF MONEY/ TIME:-

- Installation of Energy Meters:-

The monitoring of Energy consumption is the first step for planning and taking necessary action for Energy Conservation. Transformer wise and Feeder wise Energy Consumption data is now recorded and appropriate action will be initiated accordingly.

Replacement of HPSV Lamps by CFL:-

Considering 24 Hours glowing of Lighting , Saving of Rs. 3,25,215/- per Year can be achieved @ Rs. 3/- per Unit.

Sr. No.	No. of HPSV lamps (150 W)	Total Energy Consumed in a Day	No. of CFL	Total Energy Consumed	Net saving
1	200	$150 \times 200 \times 24 / 1000 = 720$ KWH	75 (85 W) 125 (90W)	$85 \times 75 \times 24 / 1000 + 90 \times 125 \times 24 / 1000 = 423$ KWH	720KWH – 423 KWH =297 KWH



Savings by Providing VFD for Seal Air Fan:-

- Considering continuous running of 2 Coal Mills with 2 Nos. of 120 KW Seal Air Fan Motors (Actual Power measured @ 95 KW) Present Energy Consumption per Day
 - = $95 \times 24 \times 330$ Days
 - = 7,52,400 KWH.

Saving of @ 45% Energy with VFD = 3,38,580
KWH/Year

Considering the rate of Rs. 3/- per unit , the saving will be Rs. 10,15,740/- Per Fan /Year