

Energy Conservation Achievements

TNPL Energy Management envisages towards conservation of energy right from 2002-03. In view of contributing to the energy conservation measure the nation aims at is followed by TNPL. The Energy Conservation measures undertaken are such below.

I Fluorescent Lamp 40W replaced with 11W CFL in staircase

Background:

As the staircase in the Eastern and Western side of building is exposed to partial Day light it was decided to replace the Fluorescent Tube light 40W with 1X11W CFL to conserve power. 15Nos of FTL fittings was changed to 11W CFL. The savings and the payback of investment are shown below.



Before



Now

Yearly saving on Energy
Yearly saving on Energy cost
Investment
Pay back period

= 0.111 Lakh KWh / year
= Rs.0.555 Lakh/ year
= Rs.0.12Lakh /-
= 2.6 months

II Pull Chord Switches Providing for Switching off minimum 2x40W Fluorescent Tube Light:

Background:

In cabins 4x 40W Fluorescent Tube light fittings were used. As two FTL switched off comfortable lighting was available it was decided to Provide Pull chord switches to switch the two lights from ones seat. 10Nos of Pull chord rope switches were used to control 20FTL fittings. The savings and the payback of investment are shown below.



Before



Now

Yearly saving on Energy
Yearly saving on Energy cost
Investment
Pay back period

= 0.062 Lakh KWh / year
= Rs.0.31 lakh/ year
= Rs.0.003/-
= less than a month

III Central Air conditioning 270TR Plant Analog Temperature gauge replacement to Digital Temperature scanner / monitoring unit for 90TR-2Nos & 45TR 2Nos:

Background:

The Central Air Conditioning Plant of 90TR-2Nos & 45TR 2Nos were monitored with operators based on the Analog Temperature Gauges available in each unit. On replacing the same to Digital Temperature Scanner / monitoring unit the operators has better access to operating temperature of plant were in makes operator easy to ON/OFF the units. The savings and the payback of investment are shown below.



Before



Now

Yearly saving on Energy
Yearly saving on Energy cost
Investment
Pay back period

= 0.24 Lakh KWh / year
= Rs.1.2 Lakh / year
= Rs.0.08 Lakh/-
= Less than a month