

# **ENERGY AUDIT OF IIT-BOMBAY CAMPUS**

## **Draft Final Report**

**I<sup>st</sup> Year M.Tech Students of the  
Department of Energy Science and Engineering**



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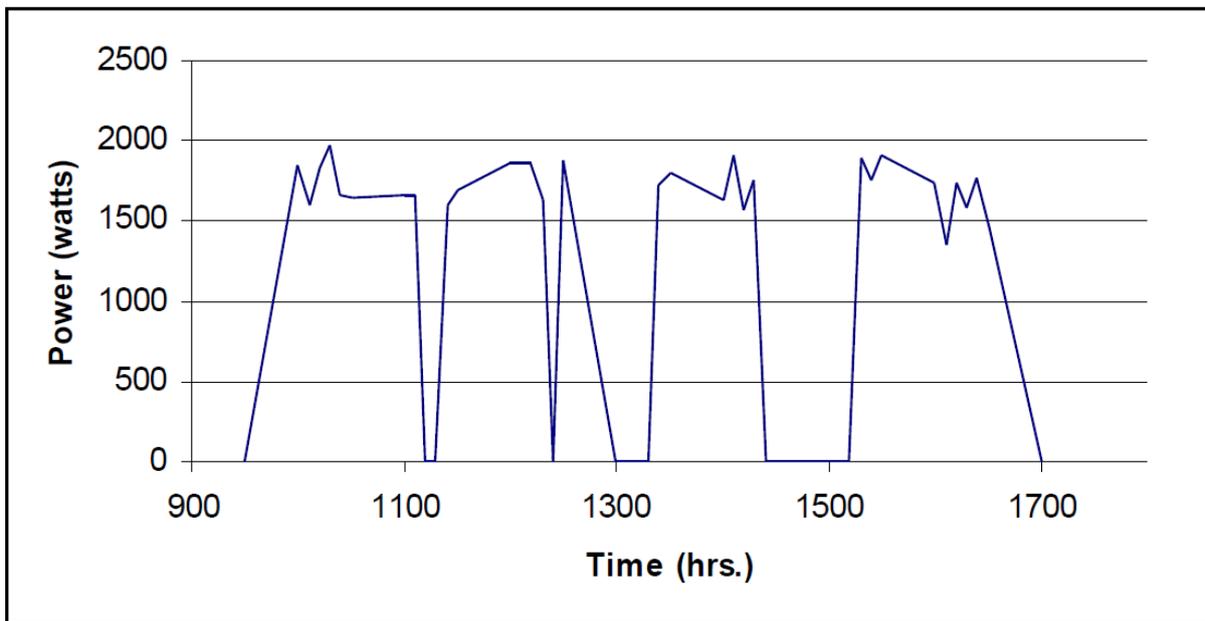
**as a part of the course work for the subject EN 607: Energy Management**

## 4. MEASUREMENTS PERFORMED

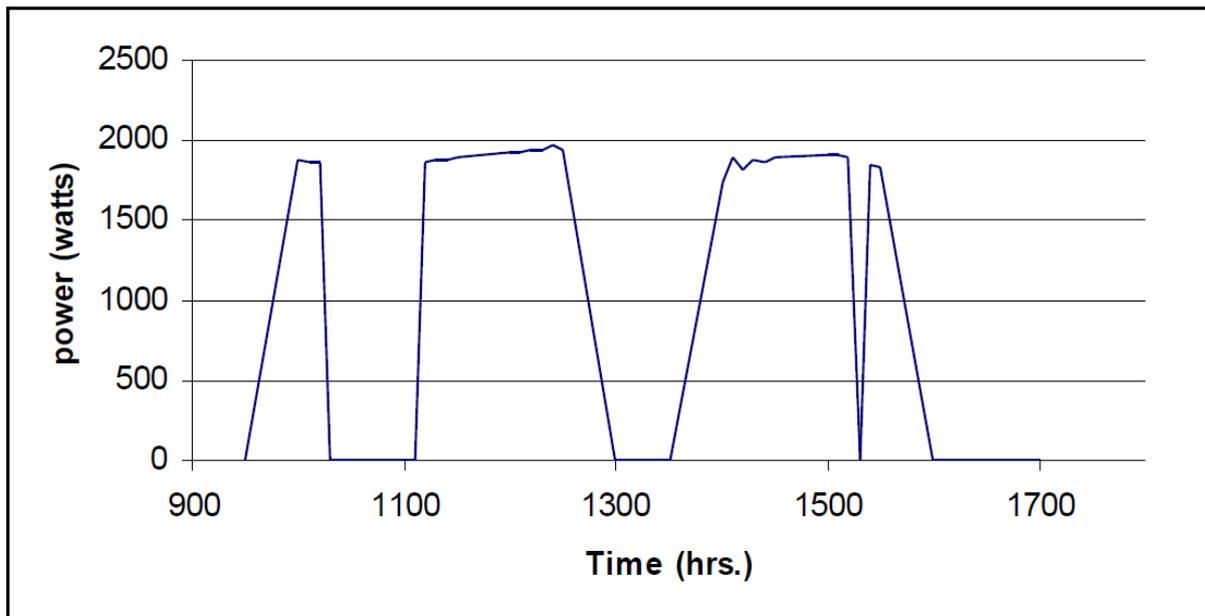
Data obtained based on measurements are included in this chapter.

### 4.1 Room air conditioners

A commercially available energy saver for room ACs was procured and measurements were carried out for over 60 hrs, with and without the saver, for a typical 1.5 ton Voltas Vertis AC in the DESE Urja Computational Lab from 7th- 12th May, 2008.



**Fig. 4.1 AC Load curve for the day without the energy saver for ACs (on 12th May, 2008)**



**Fig. 4.2 AC Load curve for the day with the energy saver for ACs (on 7th May, 2008)**

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\* The Aircosaver was procured from M/s Ecopower Ltd., Mumbai. These measurements are purely from a study point of view and are applicable only in the specific context. They should not be construed as an endorsement of the merits or deficiencies of the said product(s) by IIT-Bombay.

**Table 4.1 Energy savings achieved by installation of energy saver for a 1.5 ton AC**

<b>Time hrs.</b>	<b>Energy consumed without saver (in Watt hrs.)</b>	<b>Energy consumed with saver installed(in Watt hrs.)</b>	<b>% savings</b>
1000-1110	2532	1368	46
1140-1230	1886	1086	42.4
1250-1310	372	334	10.2
1340-1430	1900	1050	44.7
1530-1650	1650	1544	41.7
Whole working day (7.5 hrs)	14880	8887	40.3

Thus savings of the order of 35-40% was seen when the energy saver was fitted.