Thesis Title Energy Saving of Air Conditioning System Using High Precision

Thermostat and House Keeping

Thesis Credits 6

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Degree of Study Master of Science

Department Energy Management Technology

Academic Year 1999

## Abstract

This Thesis is study of energy saving of split type air conditioning unit by using high precision thermostat and house keeping. The main objective of the study is to compare energy saving of air conditioning before and after maintenance and to compare energy saving by using high precision thermostat. The study consists of inspecting and collecting the data for 6 months by using 2 similar air conditioning and 10 units of 3 years, 4 years, and 5 years existing air conditioning. In the case of high precision thermostat test, electricity consumption before and after setting the equipment, would be collected and compared energy saving.

The result of the study showed that the maintenance of air conditioning could be saved electricity about 136.6 kWh/year or 14.59%, and the electricity cost could be saved by 336 Baht per year. For the 3 year, 4 year, and 5 year air conditioning units could saved electricity about 462.4 kWh/year, 182.4 kWh/year, and 529.6 kWh/year or 13.25%, 16.05%, and 16.11% respectively. In the case of high precision thermostat test, electricity could be saved by 750 kWh/year or 26%, and the electricity cost could be saved by 1,770 Baht per year

Keywords : Maintenance / Energy Saving / Air Conditioning / Thermostat