HIGHER TECHNICAL INSTITUTE MECHANICAL ENGINEERING DEPARTMENT DIPLOMA PROJECT

ENERGY MANAGEMENT IN AN INDUSTRY

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INTRODUCTION

The need to conserve

It is appreciated that energy is vital to Man's survival, it is not surprising that it is at the topic of increasing interest. There are many different views on energy sources, requirements and costs, but several basic ideas one and firmly established.

As reserves fossil fuels (Mainly coal oil, and natural gas) are depleted, huge amounts of new capital will be required for further and more difficult and production.

As the world population increases and as underdeveloped regions of the world rightly for better living standards, the total demand for energy will continue to rise substantially.

Sufficient energy may provide local security of supply for a period, but world prices increase they are unlikely to be cheap sources for very long.

One half of the used by man is wasted. There is ample scope for improvement, through there are often practical difficulties and the more drastic energy – saving measures might require unacceptable charges to present lifestyle. Improving efficiency and making fossil fuels last longer will give more time for the proper and safe development of nuclear power and of renewable sources of energy like solar, wind and tidal power, through it may be years before these begin to make a significant contribution to the world's energy supply, and some may never prove to be economic on a large scale. Industry and commerce should require little convincing of the need to

conserve in order to cut their costs as distinct from the capital cost of energy -using plant.

Industry and commerce account for an important part of the world's total consumption of energy, although, of course, effective conservation in these sedors depends also on action by many others, including governments, as well as private individuals. But conservation by industry and commerce is important not only because they have an immediate financial intensive, but also because they are in a unique position as users, suppliers and employers to influence and encourage others.

When many costs are escalating and difficult to control, energy is often one area where effective saving can be done by applying well established principles and techniques. No new technology is required. What is required is the dedicated and systematic application of proven ideas.





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