

# SAVING ENERGY



## THE MALAYSIAN FOCUS AND WHAT OTHER NATIONS ARE DOING

There are significant potential energy savings that can be achieved by building more energy efficient buildings in Malaysia. This is clearly seen in “Energy audit in government buildings” conducted by PTM (Pusat Tenaga Malaysia) in 2003.

The implementation of EM (Energy Management) by MIEEIP (Malaysian Industrial Energy Efficiency Improvement Project) is to optimise the use of energy by avoiding waste or recovering unused energy in processes or facilities. This indicates the need for Malaysia to establish a roadmap for national energy saving. MIEEIP suggested that the EM approach should be introduced within the industrial and commercial sectors.

In Malaysia more priority should be given to designing low energy buildings as currently practised in Europe and

North America. Although awareness of energy efficiency within building has to a certain extent been generated among Malaysian builders, architects and consultants, nevertheless the implementation aspect is still very weak. This is likely due to several factors such as:

- Lack of enforcement by the relevant ministries and authorities.
- Absence of a national policy and the fiscal and financial framework to move it forward.
- Low energy cost due to high subsidy by the government.
- High initial investment cost for an energy efficient building.
- Lack of understanding on the benefits of insulation among the general public.
- Lack of tax incentives.
- Lack of understanding of the potential benefits of insulation especially in terms of energy savings and positive environmental impact.



## MEASURES MUST BE IMPLEMENTED IN ORDER TO FACILITATE BETTER ENERGY EFFICIENCY PRACTICES WITHIN THE BUILDING SECTORS IN MALAYSIA

The implementation of the following measures would greatly facilitate better energy efficiency practices within residential and non-residential building sectors in Malaysia.

- **Upgrading Uniform Building By Law (UBBL)**

The energy efficiency requirements of the UBBL should be further improved and its implementation made mandatory. The improved standards should effectively regulate the design and building of more energy efficient buildings complying especially with requirements in the thermal transfer of the building envelope.

- **Energy certification for buildings**

Energy performance certificate should be issued to building owners complying with certain minimum energy performance requirements. The certificate should only be awarded by qualified auditors upon the successful achievement of these requirements. The energy certification approach has already been implemented in the UK and is most applicable for buildings that consume large amount of electricity.

- **Tax deduction for owners**

Tax rebate or deduction should be extended to house or building owners who build and re-build low energy consumption buildings. This approach is very effective in encouraging energy efficient building practices.

- **Education and training for architects, engineers, and consultants.**

Education and training should be provided to architects, consultants or engineers, such as on how to design more energy efficient buildings and the use of tools to aid energy performance calculations. Incentive should be given to companies that purchase energy efficient technologies and software that helps improve application of energy efficient building designs. Energy saving knowledge should also be made a part of the educational syllabus at tertiary level.

- **Awareness campaign by the government**

The government should actively campaign the awareness of energy efficiency and conservation through road shows and seminars for the public. This campaign should also encompass the various government bodies and ministries, professionals and organizations within the building industry in order to promote the application and improvements of policies, regulations and technologies of energy saving initiatives.

With the implementation and proper follow-up of these measures, Malaysia would be in a better position to reduce its energy costs while still maintaining a comfortable and sustainable lifestyle.

What are the measures taken in other nations?

- The UK government with its UK Climate Change programme outlines that houses must provide the Energy Performance certificate outlining the energy efficiency and carbon emission levels. From 2009 onwards all houses sold must carry an energy certificate. The UK building regulations have also been revised with the aim of cutting carbon emissions and optimising fuel usage.
- The Energy Authority in Denmark will improve energy efficiency of new buildings by 25-30% in 2006, 2010 and 2015. Denmark has the world's strictest energy requirements for new buildings. It is also the only country in the European Union able to be a net exporter of energy.
- The US Department of Energy announced USD140.3 million in weatherization programme grants to 31 states and Navajo Nation to make energy efficiency improvements in homes of low income families. The government also provides tax credit to builders who build homes that achieve 50% energy savings above the model energy code whereas tax deduction is made available for owners or tenants who build or re-build energy saving houses.