

# Getting wind of the situation

THE use of wind energy is becoming more popular in certain countries, with its usage increasing by as much as 20 per cent last year, double its usage in the last two years. The reduction of some dependence on finite resources like oil, gas and coal can be attributed to the popularity of wind energy.

Wind energy is a form of clean energy and therefore it has little impact on the environment and because wind is 'renewable' it can be harnessed consistently. Wind energy in theory can be harnessed anywhere, but certain environments like mountainous areas or canyons are able to produce more wind energy.

## HOW IT WORKS

Wind energy is generated when wind blows into the turbine blades, which spin a shaft. The wind shaft is

connected to a generator which produces electricity. The electrical voltage is then increased using a transformer enabling electricity to be sent via transmission and distribution lines to users.

Thus far, 80 per cent of the world's installed wind energy capacity comes from the United States, China, Germany, India, Denmark and Spain. As the fastest growing renewable energy source, wind power has the capacity of reaching 14,000 MW worldwide.

## IN MALAYSIA

While the implementation of wind energy in Malaysia is considerably cheaper compared to solar energy, wind in Malaysia does not blow consistently to generate enough energy.

According to Universiti Putra Malaysia lecturer, Dr Christopher Teh,

wind energy can only be used in limited areas.

He adds that wind energy can also be harnessed only during certain periods of the year, for example early and late in the year. Dr Teh believes that there is an avenue for the usage of wind in Malaysia, however, he adds that it will only be beneficial in the east coast of the Peninsular including islands like Perhentian and also in East Malaysia.

The growth of the wind energy industry will increase greatly in the coming years but there are, however, still some issues that the industry will need to iron out including efficiency and intermittency. Judging by its present usage the wind energy industry expected to account for 20 per cent of the world's electricity at the end of the century.



## Advantages of using wind energy

- Wind does not cost anything.
- The electricity generated is clean and does not use any fossil fuels.
- The energy production is made more efficient through the latest technologies.
- Wind turbines do not need much space when compared with power stations and they can be placed various remote locations.
- Wind can provide a reliable supply of electricity when it is combined with other energy sources.