NRMA
Motoring & Services

UNDERSTANDING
Hybrid Vehicles

Above and right: Honda Insight and hybrid engine.

Above and right: Toyota Prius and hybrid engine.

HYBRID VEHICLES generally have a petrol engine, smaller than would be normal in a conventional vehicle of the same size, boosted by a battery pack and electric motor. The two hybrid vehicles presently available on the Australian market, the Honda Insight and the Toyota Prius, also have other efficiency features such as regenerative braking, which turns the electric motor into a generator under braking, thereby feeding power back to the battery; and low resistance tyres which reduce power losses when driving.

Substantial advantages have been claimed for hybrid technology, the primary one being greatly reduced fuel consumption with no loss of performance.

The two hybrid vehicles currently available in Australia have been shown to consume significantly less fuel for the same task than conventional vehicles, although it depends on the kind of driving that is undertaken. The Honda Insight was driven (carefully!) from Brisbane to Melbourne and achieved a fuel consumption of less than 2.3 litres per 100 km, 128 mpg on the old scale.

Hybrid vehicles are probably an interim design before vehicles switch to hydrogen fuel used in fuel cells, but they can significantly reduce fuel consumption for a given task.

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