

## Methanol To Provide The Future Of Environmentally Friendly Power

With environmental approval of the Tassie Shoal LNG project, methanol is now being seriously considered as an alternative fuel that can be used as an environmentally friendly power source.

The proposed Tassie Shoal methanol production project involves the construction and operation of a world-scale gas reforming and methanol production plant and associated facilities on Tassie Shoal in the Timor Sea. The proposed Tassie Shoal methanol production plant will comprise two production units, each producing 5,000 t/d of methanol.

The first production unit (stage 1 methanol plant) is expected to be commissioned in late 2006 and the second unit (stage 2 methanol

plant) approximately four years later. Following commissioning of the second stage, the combined plant will be capable of producing 10,000 t/d (3.5 million t/yr) of methanol.

Methanol is used extensively as an industrial base chemical, and as a petrol and diesel substitute in the United States and Germany. Low in emissions when compared with conventional fuels, methanol is also low in reactive hydrocarbons and toxic compounds, and produces significantly less nitrogen oxides.

But its use as an environmentally friendly alternative power source is providing a key to its use in the future. Many of the world's major vehicle manufacturers consider methanol as an ideal hydrogen carrier for fuel cell vehicles.

While a number of commercial vehicles are already powered by fuel cells, new clean air acts will promote a rapid introduction of fuel cell technologies and wider use of electric vehicles in Europe and the United States. In addition, methanol fuel cell vehicles will significantly reduce vehicle emissions and improve air quality.

Methanol also evaporates quickly when exposed to the air, dissolves completely when mixed with water, biodegrades rapidly when in the soil, and is not mutagenic or carcinogenic.

The projects will take advantage of the forecast shortfalls in regional methanol and LNG production, with a particular emphasis on supplying the North East Asian markets, and possibly the USA. ■

