

# Power behind the boom

The economic prosperity in Western Australia reflects the investment growth in North West Shelf, writes **Nigel Wilson**

**M**ORE than 63 per cent of Australia's hydrocarbon production comes from West Australia, much of it from the North West Shelf gas project, which is Australia's biggest single resources development.

The figures are mammoth.

The Shelf gas project, operated by home-grown Woodside, involves an investment calculated in today's dollars at around \$19 billion. Its current expansion will take annual capacity to more than 16 million tonnes of LNG and make the development one of the world's top five LNG producers.

The Shelf celebrated its half century as a corporate entity last year. Its operator is also considering investment in the Pluto LNG development, which will also be located on the Burrup Peninsula and has plans to supply LNG to north Asia for decades to come from the remote Browse Basin, north of Broome.

Woodside is not alone. For instance, the much discussed Gorgon development has already involved spending more than \$1 billion on exploration and development planning and that's without receiving government environmental approvals.

BHP Billiton is proposing to supply North American markets from the Scarborough fields offshore from Onslow. The Japanese group INPEX has an exciting plan for developing an LNG terminal to exploit its big Browse Basin reserves. At a reduced scale the listed gas minnow last month agreed to supply 1.8 million tonnes of LNG a year to the proposed Kitimat receival terminal in British Columbia with gas probably coming from Western Australia.

Companies such as Santos and Apache, Roc and Arc, are also investing hugely in WA oil and gas developments.

Far out in the Indian Ocean off the West Australian coast, one of the most technically advanced vessels in the world has begun work on the far horizons of Australia's search for more natural gas.

The WesternGeco-owned seismic vessel Western Trident is conducting a scheduled 75-day, multi-million dollar, 3-D seismic survey for Chevron over four deepwater permits in the Exmouth Plateau area of the Carnarvon Basin.

The program is believed to be the first to benefit directly from the federal Government's revised incentives to encourage exploration in frontier areas, loosely defined as

places where there is no current petroleum production. The government policy provides that 150 per cent of the value of exploration in frontier areas can be set against Petroleum Resource Rent Tax payments. According to the government, the offshore exploration incentive was introduced to support exploration and to improve the opportunity for producers to maintain their capacity to supply the domestic market.

Chevron and 50 per cent partner Shell were awarded the four permits between 160 and 480km off the WA coast in July last year.

Chevron has committed \$US190 million this year to exploration in Australian waters where it holds 33,000sq km of exploration acreage on its own account and is either operator or partner in exploration programs covering 66,000sq km.

The fact that Western Australia is now experiencing the richest period in its history, surpassing the gold boom of the 1890s, is due to changes wrought as a result of the emergence of the oil and gas sector as a major component of the state's economy. In the 1950s Western Australia had evidence of oil at Rough Range in the Carnarvon basin, 65km south of Exmouth but it was too small a discovery and in too remote an area to be considered commercial.

But government geologists were convinced the area's geology was attractive and they argued the government should offer exploration acreage in a bid to attract real investment in exploration capitalising on the renewed interest in Australian oil and gas as a result of discoveries in Bass Strait, off the Victorian coast. The hope for interest from the international majors was dashed and it was only the struggling minnow, Woodside, which was interested and so it was awarded exploration permits covering 367,000sq km of the geologically unknown ocean in the north west. Linking with British groups, Burmah Oil and Shell, Woodside formed a joint venture to explore an area one and a half times bigger than its home state.

The turquoise blue of Roebuck Bay near Broome, the mangrove-fringed islands of the Bonaparte Archipelago off the Kimberley coast, the burgeoning ports of the Pilbara and the atomic blast sites of the Montebello Islands became synonymous in the 1970s with the successful search for oil and gas.

Then, as now, it was oil that was the focus of the search, particularly against the background of political events in the Middle East that had sent oil prices soaring and limited supplies to the US sparking fears about the security of energy supplies that continue to be reinforced today.

But it was not oil but the discovery of gas and lots of it in an area of political stability that was to provide the trigger for billions of dollars worth of investment in one of the most challenging environments in the world.

Aside from being remote, lacking popula-





tion and industry, the ocean off the Pilbara and Kimberley coasts was frequently lashed by cyclones notorious for destroying everything in their path as well as killing scores of pearl divers who worked in one of the few commercial activities that found a place to survive in the coastal waters.

Transforming the gas reservoirs found deep beneath the seabed was going to take more than just the application of techniques used elsewhere in the world. Those closely involved with the gas search in the 1970 are united that without the foresight and enthusiasm of former West Australian Premier Charles Court who not only ensured the State Government bought natural gas from the Shelf partners but also built the pipeline system that delivered it to the domestic market, the fledgling industry would have stalled.

Perth is Australia's most multicultural capital, in part because of the demands of the resources sector for finding the best solutions requiring the best brains and these come from around the world.

The oil and gas sector is no exception with a number of projects following Woodside's lead expected to come into production in the next decade and attracting personnel from almost anywhere.

Before the end of the year then Government is expected to delineate the final environmental conditions for the Gorgon LNG project which hopes to be selling gas from the reserves west of Barrow Island to Japan by 2012. Question marks remain on Gorgon. What is certain is that the project cost will be substantially higher than the \$US11 billion estimated three years ago.

## OIL & GAS NORTH WEST SHELF

