Australian Petroleum Production and Exploration Association

Annual Conference, Canberra

Monday, 29 March 2004

Keynote address

Investing in Australian Energy Supply
– A Company Perspective –

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Fifty years ago, a Melbourne accountant, Rees Withers, and his stockbroking partner, Geoff Donaldson, dreamt the quintessential Australian dream.

On the back of the Rough Range discovery, they formed Woodside (Lakes Entrance) Oil NL.

Within 10 years, they had begun exploring an area bigger than Victoria off the North West Shelf.

Within 20 years, their company had found one of the world's great gas fields.

Within 30 years, it was constructing what would become the country's biggest resource project.

Within 40 years, Australia was exporting LNG to the world.

Today, only Geoff Donaldson survives that dreaming duo, having pioneered an Australian top 20 company.

Unfortunately, though, Australia's promise for oil today is as meagre as it must have seemed when our good friends, Chevron and their WAPET co-venturers, drilled 94 dry holes on the trot after the Rough Range discovery before they finally proved up Barrow Island.

While we've had wonderful success in Bass Strait, the Cooper Basin, the North West Shelf and the Timor Sea, we have all found the Australian oil patch difficult and, indeed, we do not see it getting easier.

For Woodside, we will continue to explore for oil in Australia, particularly off Exmouth and Karratha in Western Australia.

In the Carnarvon Basin, we see tremendous promise around our Vincent, Enfield, Laverda, Stybarrow and Skiddaw discoveries.

On the North West Shelf, we have just completed one of Australia's largest three-dimensional seismic surveys and are looking at a suite of in-fill drilling opportunities around our Legendre and Cossack Pioneer oil facilities.

Elsewhere, we applaud recent Perth Basin successes, particularly Cliff Head; the frenetic activity of junior explorers in the Cooper Basin; and the renewed enthusiasm for Bass Strait where major seismic survey work has just been completed.

Despite these bright spots, we cannot ignore Australia's relatively short history of oil exploration which tells us we have not found an oil field of more than 350 million barrels since Bass Strait in the early 1960s.

And today, the average size of new fields is less than 50 million barrels.

As a result, the industry generally agrees that Australia's oil and condensate production at the end of this decade is likely to be half of what it is today.

This, as we know, has significant implications for our balance of payments, for government revenues, for Australia's energy security, and for industries other than ours that rely on our investment.

At Woodside, we see the future of oil in Australia in the deep water, the new frontier where water depths are 500 metres or more.

And with this frontier comes higher cost and greater risk.

For example, typical day rates for deep-water drilling rigs in Australia are more than double those for rigs operating in shallow water, or in depths up to 500 metres.

In our experience, deep-water wells in Australia can be six times more expensive than wells in shallow water.

And, when we do find oil in deep water, fields must be more than 100 million barrels, or double the commercial threshold for fields in water depths of less than 500 metres.

Further, we estimate that production facilities in deep water – such as tension leg platforms and floaters – will cost twice as much as conventional facilities in shallow water.

These examples illustrate why fiscal regimes must be continuously adjusted to encourage companies to explore.

Fortunately, the pioneers of Woodside, and the pioneers of many of APPEA's member companies, including Santos and Apache which this year, too, celebrate their 50th birthdays, have spawned an abundant asset base that leaves Australia blessed with gas reserves in several basins across the country.

Today, Australia has about 150 trillion cubic feet of gas, or more than 150,000 petajoules, predominantly in north-western Australia.

At our current rates of production, we could meet demand for another 150 years.

Indeed, gas presents a huge opportunity for Australia on several fronts.

With the right policy settings, we could within a decade have a demonstrable impact on our balance of payments to offset Australia's declining oil production.

With the right policy settings, we could within a decade facilitate investment of more than A$30 billion in gas projects such as the North West Shelf, Sunrise, Gorgon and Browse.

Notably, the common element in these projects is LNG where large-scale, long-term exports are required to underpin investment.

And, lest we think we might be selling the farm by contemplating such export development, it is healthy to note that gas prices for industrial customers in Western Australia have fallen to be the lowest in the country on the back of that state's LNG growth.

Along with LNG growth, Australia's gas industry has changed significantly over the past decade or so.

New fields have been developed through long-term contracts with customers and companies having made substantial investments in pipelines.

We are developing more remote gas fields like Thylacine and Geographe in Tasmania and Victoria and Blacktip in the Northern Territory.

But the major challenge for Australia has been, and will continue to be, developing markets for our gas.

Contrast the picture for oil and for gas …

New oil discoveries enjoy the opportunity to sell into a deep, international market.

Australian gas does not have that luxury. We have to build our gas markets.

Unlike oil, Australian gas does not have a spot market.

Unlike oil, Australian gas needs long-term sales contracts to underpin platforms and pipelines.

Unlike oil, Australian gas does not have a transport infrastructure to readily link suppliers and customers.

Distance to market matters more for gas than it does for oil.

Gas in Australia is a long game.

It is based on a long-term, strategic view of markets and – because we lack a domestic gas market of sufficient depth – it will continue to be based on LNG, at least for the country's north-west where we have most of our gas reserves.

As we have seen with the North West Shelf, and we will see with Sunrise, Bayu-Undan, Browse and Gorgon, LNG contracts underpin the huge investment in facilities that allow us to seriously consider bringing remote gas into Australia's domestic market.

If we allow ourselves to dream a little, we can imagine what Australia's gas picture might look like in 20 years if we can get the settings right.

To help, let me turn to a picture of contrast between Australia and the United States, the world's biggest energy market.

In the US, a trillion cubic feet of gas can have a value of up to 10 times that of a similar volume in Australia and American suppliers have no lack of certainty in selling it.

In the offshore Gulf of Mexico, it is common for gas fields as small as five to 10 billion cubic feet to be developed.

In Australia, it is exceptional for us to develop an offshore gas field of less than 200 billion cubic feet.

In the offshore Gulf of Mexico, the lead time from discovery to delivery of gas can be six months or even less.

In Australia, the best we are likely to do offshore is four or five years.

In the United States, the interconnected gas pipeline network would stretch from the earth to the moon 7.5 times, or nearly three million kilometres.

In Australia, it totals less than 100,000 kilometres. And, it is un-connected.

In the United States, producers can sell gas through Henry Hub spot markets just as they might sell oil on the New York Stock Exchange.

In Australia, nearly all of our gas is sold on term contract, each individually negotiated.

Each year, the US consumes almost the equivalent of an entire North West Shelf.

For every Australian, the US has about 15 Americans . . .

In short, comparisons between the two countries could not be more striking, and I use these comparisons not to lament the good fortune of the United States but to illustrate what can happen when people can see the long term, and get the settings right.

At Woodside, we have a dream about what could be in the long term.

In essence, we see a country connected, where our vast gas reserves on one side of the country are linked to our major population centres on the other.

Over the next 20 years, we see strong gas growth in Queensland and Western Australia, consistent with the concentration of energy-intensive minerals and resource industries in those states.

During this period, we expect gas use in mining, manufacturing and electricity to increase more strongly than in the commercial and household sectors.

In sum, we think it likely that demand will outstrip supply in Australia's eastern states by 2015 unless gas is brought from Australia's north or north-west.

With studies suggesting that sales of more than 200 petajoules a year would be needed to underwrite gas projects for the eastern states, Woodside envisages a transcontinental pipeline from the Browse gas fields near Broome to Moomba that can be delivering gas to the eastern states within 10 years.

The 'enabler' for this vision is, of course, LNG.

In our view, the formation of LNG production 'hubs' will be needed to facilitate further major gas field development in Australia, given our dispersed population and sparse distribution infrastructure.

These 'hubs' delineate economic catchment areas, where the tie-back of new reserves to existing infrastructure makes more economic sense than the development of dedicated, expensive greenfields infrastructure.

Our idea of hubs recognises the benefits we can all leverage by collaborating at the production end and by choosing not to compete on infrastructure.

At the same time, our idea accepts and promotes fierce competition in the market.

Our idea acknowledges the key role that LNG development will have in building a long-term, lower-cost domestic gas supply.

Our 'hub' philosophy promotes the development of localised industrial complexes, such as those proposed on the Burrup Peninsula, by aggregating incremental reserves at lower cost.

For more than 30 years, Australia has been served by three major existing hubs – Bass Strait-Gippsland, Cooper-Eromanga and the North West Shelf.

Today, Woodside sees the development of north-western Australia's huge gas reserves around three major new hubs.

The first is the Greater North West Shelf, where we are confident that the proponents of gas projects in this region will capture significant savings through building on the success of the North West Shelf Project and its already extensive infrastructure.

As an Australian company, Woodside believes that focusing development on the Burrup Peninsula will avoid duplicating expensive infrastructure elsewhere, thus eroding the value of the investment made by successive State and Commonwealth governments in the remote Burrup facilities.

The second hub is Darwin, where Australia's newest gas development is under way with construction of the Bayu-Undan LNG plant.

The Bayu-Undan and Sunrise developments have plans to commercialise about 11,000 petajoules (or more than 10 trillion cubic feet) of gas predominantly for the LNG export market.

In two years, the Bayu-Undan partners expect to begin exporting more than three million tonnes of LNG a year to Japan from an onshore LNG plant near Darwin.

At Sunrise, Woodside – as the largest partner and operator – is investigating offshore proposals and onshore development concepts for Timor-Leste and the Northern Territory.

To complement Darwin LNG developments, we expect to be producing gas from Blacktip within three years for sale into the Northern Territory domestic market.

And with Blacktip and Sunrise come the opportunity for other fields, such as Petrel and Tern and Evan Shoal, which have lain dormant for years, to enter the market.

The third hub is Browse where estimates suggest 30 trillion cubic feet of gas await development.

With more than 20,000 petajoules (or 20 trillion cubic feet) alone in the Woodside-operated Scott Reef, Brecknock and Brecknock South fields in the Browse Basin, this region could support LNG exports of 10 million tonnes a year, and domestic gas sales of 200 petajoules a year, for more than 30 years.

The Browse development, which is 850km from both the North West Shelf and Darwin, cannot economically access either hub so must form its own, new standalone gas hub, a prospect we see likely within the next decade.

When we look to LNG, Australia – and by dint of history and circumstance, Woodside – is superbly positioned on the doorstep of the major gas-consuming markets of eastern Asia.

In 2003, these markets imported more than two thirds of the world's LNG.

While we in Australia may have a competitive edge over Middle East producers when it comes to Asian markets, we face formidable forces in Indonesia, Brunei, Malaysia, and now Russia.

Additionally, the Middle East producers, some of which have gas fields measured in hundreds of trillion cubic feet, are also competing for Asian markets.

Thus, we also look to China and the US where we may have either transport, cost, technical or political advantage.

But there, too, competition is fierce.

On the North American west coast, 10 proposals for LNG receiving terminals are being studied and we think two or three are likely to get off the ground in the next year or so.

Already, Indonesia is expected to supply three million tonnes of Tangguh LNG each year to the North American west coast.

As we gather here in Canberra over the next few days, it may be useful to contemplate what the future holds and the challenges we face in oil and gas in Australia.

In doing so, we should consider the contribution of Australia's policy makers and politicians who, regardless of political persuasions, have acted consistently in the best interests of this industry over the past half century or more.

We thank you for that support and commitment.

At Woodside, we look to the challenges with recognition that Australia remains our heartland and projects like the North West Shelf our heartbeat.

Even with our excitement for a growing African business and a considered approach to the US as we strive to meet our shareholders' aspirations for top quartile returns, our projections show that three quarters of our business will still be Australian in 2020.

In this auspicious year for at least three pioneering companies here today, the challenges we all face require a few more of us – geologists, engineers, marketers, executives, customers, public officials, elected representatives – to dream again about what might be in the next 50 years.

Just like Rees Withers and Geoff Donaldson.

Thank you.

Sources:
The American Petroleum Institute and the Association of Oil Pipe Lines
Australian Gas Association
ChevronTexaco
Energy Intelligence Agency, US
Woodside