Gippsland Basin Resources for Long Term Economic Prosperity

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ABSTRACT

It has long been recognised that Australia can benefit substantially in an economic sense from its rich resource base. The significant resources of the Gippsland Basin are a good example of the wealth of this nation. As cited in popular debate, Australia must value-add to its natural resources to ensure its long term economic prosperity.

The significant oil, gas and coal resources of the Gippsland Basin have provided the Strategic Research Foundation with the basis for two major research and development initiatives ensuring the long term economic development of the Basin and Australia.

The key objective being to build a more competitive and productive industry in related industries. The gas and coal reserves of the Basin together with the area’s extensive history in electricity generation provide the rationale for establishing Ceramic Fuel Cells Ltd. A consortium comprising Australia’s leading industrialist - BHP, State energy authorities and the Nation’s major research and development organisations, has formed Ceramic Fuel Cells to undertake and manage research, development and commercialisation of solid oxide (ceramic) fuel cells which convert fossil fuels directly to electricity with greater efficiency and less pollution than existing technologies.

The oil and gas resources of the Basin together with the valuable experience of the operators in recovering these resources, have provided the impetus to investigate the feasibility of a Marine Engineering Research Centre. The commercially oriented research, education and training objectives of the Centre are well supported by the leading industrialists in related industries.

INTRODUCTION

Australia is renowned world-wide for it’s rich resource base. These resources have played a key part in Australia’s and Victoria’s economic development. The State of Victoria is richly endowed with one of the world’s largest brown coal reserves and we have over 50 per cent of Australia’s reserves of crude oil and just over 40 per cent of commercial gas reserves. This makes Victoria self-sufficient in brown coal and natural gas, while more than 90 per cent of crude oil for our refineries comes from fields off the State’s coast.

The home of this significant energy resource is what could be termed ‘Australia’s Resources Capital, the Gippsland Basin.

While the country has been renowned for its wealth of resources, Australia can no longer afford to rely so heavily on them. Australia is facing a major challenge to stabilise its international debt and reduce the size of the current account deficit. Although Australia’s rural and mineral products will continue to be important in the future, the real challenge is to add value to them. Australia must export more manufactured goods and services and substitute imports with more quality Australian products. The key objective being to build a more competitive Australia for the long-term economic prosperity of the nation.

Victoria’s abundant fossil fuels have provided a substantial impetus to economic development in the State, particularly since the major Bass Strait discoveries in the mid-1960s. The combination of an extensive industrial infrastructure combined with this natural endowment of substantial fossil fuel resources puts Victoria in a very strong competitive position and provides a substantial base for future growth of value-added industries.

Macro-economic policies aimed at increasing savings, improving the environment for capital expenditure especially in the traded sectors of the economy and reducing inflation, are essential parts of the adjustment process. However, building world class businesses and improving the international competitiveness and productivity of Australian industry is the lynchpin.

The role that science and technology will play in the revitalisation of industries and the achievement and maintenance of competitiveness is consequently of enormous importance. Increased technological innovation and development of a highly skilled workforce is crucial to maintaining Australia’s comparative advantage in the primary industries, and encouraging the establishment of these value-adding industries.

GIPPSLAND BASIN ENERGY RESOURCES

The resources of the Gippsland Basin have the potential to significantly contribute to the long term economic prosperity of Australia, through underpinning national energy security and influencing future industry development.

Energy security means different things to different countries. Some countries have no basic energy resources and so rely heavily on imports. Others have relatively small supplies of some or all of the energy resources and therefore are secure in the short term but suffer from the risk of long term disruptions to supply.

With the exception of liquid petroleum, Australia is well endowed with energy resources. Victoria has only a one per cent share of world reserves of fossil fuels, as is shown in Table 1, and this is primarily comprised of its coal reserves. By comparison with other countries around the world, Australia is not in a position to dominate supply of, or dictate prices in respect of liquid or gaseous fuels. While this is the case for Australia, it is even more true of Victoria. While Victoria’s reserves of brown coal are huge, they are not easily traded in their natural form and require further processing first. Even then, their energy density is not such that they can command any particular price premium.

Energy prices in OECD countries have been on a declining trend during most of the 1980s as Figure 1 shows. This has been the case for oil, gas and coal and has largely been the result of declining oil prices and an oversupply situation. This situation is likely to continue throughout the 1990s and into the early part of the next century. Although there is little excess crude oil capacity around the world, the recent Gulf crisis has demonstrated at least a short term ability to meet demand. OPEC members have plans underway to expand crude oil capacity from around 24 million barrels a day (excluding Iraq and Kuwait) to over 37.5 million barrels a day by the year 2000. While there are some offsets in lower expected Soviet production and exports, the picture over the next 10 - 15 years is one of substantial increases in supply of crude oil. Combined with a relatively high availability of other fossil fuels, it is therefore likely that end user energy prices over the next 10 - 20 years will, at best, be relatively stable.

As is shown in Table 2, Australia does not have a solid reserves base in crude oil and will have to increase its imports of liquid fuels in the longer term. The reserves base in gas and coal is relatively much stronger and provides a solid basis for fuel-switching and industrial development opportunities. The

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