



Legislative Council

APPROPRIATION BILL

30/10/79

Second Reading

Extract

The Hon. R. D. DYER [5.22]: It is a great honour to have been declared by His Excellency the Governor to have been elected to fill the vacancy which occurred in the seat in this Chamber of the Hon. J. P. Ducker. I am deeply conscious of the fact that this Legislative Council is the oldest parliamentary institution in Australia, it having first met on 25th August, 1824. I am particularly honoured to have become a member of the Legislative Council in its reformed, popularly elected state and that I was one of the group of ten candidates of the Australian Labor Party who submitted themselves for election on the first occasion, namely, 7th October, 1978, that the people of New South Wales had the opportunity to themselves elect members to this House. When the achievements of the first Wran Government are assessed in future years, it is my view that the reform of this Chamber will be regarded as its most significant achievement. The two other major achievements of the Wran Government in its first term probably will be seen to have been the establishment of the Land Commission of New South Wales and the enactment of the anti-discrimination legislation.

I regard it as a great honour also to be filling the place in this Chamber of the Hon. J. P. Ducker, who must be regarded as one of the most dominant and successful leaders of both the political and industrial wings of the Labor movement in Australia. My own association with John Ducker, as I know him, has been a long and cordial one, stretching from the time he belonged to the Hornsby branch of the Australian Labor Party some eighteen or so years ago. It is interesting to note that Hornsby A.L.P. has now produced no fewer than four members of the Legislative Council, the Hon. Wal Geraghty, the Hon. John Ducker, the Hon. Peter Baldwin and me. Perhaps if I advertised the fact, the branch would have a sudden influx of new members. The Hon. J. P. Ducker is a man of immense talents in many different respects, who is always a force for moderation and good sense. He is a chairman of consummate skill, particularly of large and sometimes turbulent meetings, such as the annual conference of the New South Wales Branch of the Australian Labor Party. He is also a most skilful negotiator with a wealth of knowledge and experience in the fields of public affairs and industrial relations. I am quite certain that John Ducker will be a resounding success in the position on the Public Service Board of New South Wales to which he has been appointed.

Appointments have been made by my side of politics in the past that attracted strong criticism at the time but which were accepted subsequently by our political opponents as being soundly based. The examples I have in mind are Mr Jack Ferguson, who was appointed chairman of the Milk Board, and Mr Frank Finnan, who was chairman of the Hunter District Water Board. I am confident that John Ducker will be so successful in his new position that the Leader of the Opposition in another place will not need to move the premises of the Public Service Board from Lend Lease House to Tibooburra if ever he is in a position to make such a decision. When I had a conversation with John Ducker a few weeks ago, after our respective appointments became public knowledge, he told me that he had succeeded to the seat in this place of the Hon. R. R. Downing. Mr Downing, as all honourable members know, is a most distinguished, not to say illustrious, former member of this Chamber, who will be recorded by history as one of its most significant figures. I am honoured to be in direct lineal descent from a man such as Reg Downing.

Before I pass to my substantive remarks, I thank you, Mr Deputy-President and, in his absence, the President, the Leader of the House, the Hon. Paul Landa, the Minister for Decentralisation and Minister Assisting the Premier, the Hon. Jack Hallam, the Leader of the Opposition, the Hon. Max Willis, my own colleagues, honourable members opposite, and the officers of the House, for their kindness and courtesy to me since I entered this Chamber recently. I am most grateful to each of them for making me so welcome here. I wish to thank also my family for their assistance and fore-bearance during my political career to date, and the Hon. Ron Mulock, Minister for Mineral Resources and Development, on whose personal staff I served over the past three years. Finally, I thank a former member of this House, the Hon. W. J. Geraghty, to

whom I referred a short time ago, a dedicated fighter for the rights of the under-privileged, and two other close friends, Mr Paul Keating and Mr Leo McLeay, members of the House of Representatives for Blaxland and Grayndler respectively, for their encouragement, support and friendship.

There remains one other matter that I must deal with before I pass to a consideration of certain aspects of the Budget. The Hon. Max Willis, when speaking during the Address-in-Reply debate on the day on which I first entered this Chamber, made some remarks about the Hon. J. P. Ducker's role in the proposal to amend the rules of the New South Wales branch of the Australian Labor Party dealing with the composition of the caucus of the State Parliamentary Labor Party. As chairman of the rules revision committee of my party, I have direct and personal knowledge of the events surrounding the proposed rules changes. It is not accurate to say that the decision made by the 1979 state conference of the Australian Labor Party went against the Hon. J. P. Ducker. Admittedly, the original proposal of the rules revision committee was to phase into caucus Labor members in this place as they were popularly elected by the people. However, subsequent discussions led to the proposal of the Premier, Mr Wran, to admit all Labor members of the Legislative Council to caucus together, after they have all been elected by the people; that is to say, in 1984 approximately. The Premier's proposal had the strong support of John Ducker at the state conference and, as all honourable members know, the proposal was adopted. The important fact is that the principle that Labor members here should be admitted to caucus was established. The details of timing are of lesser importance.

I turn to the Budget brought down in another place by the Treasurer, the Hon. J. B. Renshaw, which we now are considering here. Having regard to the difficult economic climate in which the Budget has been prepared, I regard it as a truly remarkable achievement that for the fourth successive year there are no increases in state taxes. This contrasts most favourably with budget imposts in other Liberal-governed States, such as Victoria, where stamp duty on registration or transfer of a car, third-party insurance, tobacco licence fees and stamp duty on cheques were all increased substantially.

The Leader of the Opposition in this House, in his speech in the second reading debate on the Appropriation Bill, stated that the Government's repeated claim that there have been no increases in State taxes is "less than a half-truth". I have to disagree with the Leader of the Opposition in this regard. The statement that there have been no increases in State taxes has an ordinary and well-understood meaning. It means, simply, that no existing taxes have been increased since the Government first came to office, in the sense that the rates of taxation have not been increased by decision of the Government. It means also that no new taxes have been introduced by the Government. It clearly does not mean that there have been no increases in government revenue from existing forms of taxation owing to natural growth factors.

The Leader of the Opposition referred to, among other things, increases in revenue accruing to the Government from, for example, liquor licence fees and fines and penalties imposed by courts of petty sessions. Apart from the fact that fines and penalties imposed for breaches of the law do not fall within the ordinary meaning of the term taxation, it is apparent that various forms of revenue may increase by way of total receipts from year to year, without any decision or intervention by the Government. If, for instance, more liquor is purchased by licensees this year than last, clearly licence fees payable to the Government will be greater than they were last year. I am confident that the people of New South Wales are well aware of the true meaning of the statement that there have been no increases in State taxes. They know from their own experience that this Government has an unexcelled record in maintaining rates of taxation at existing levels.

After listening to the Leader of the Opposition last Wednesday, I was tempted to deal also with his criticisms of the practice and policies of the Land Commission of New South Wales. However, I understand that the convention in this House is that one should not be unduly provocative during one's maiden speech. Therefore, I think the better course is to make some remarks on a future occasion regarding the activities of the Land Commission.

Even the *Sydney Morning Herald*, the conservative voice of the Establishment, described the New South Wales Budget as "a politically attractive document". It particularly welcomed—as I do—the increases in social welfare spending. For example, the Budget provides substantial increases in funds for home help services, increased subsidies for community welfare groups and foster parents, and additional allocations to community health services. Much has been said, both here and elsewhere, about the

Government's altered timetable for the abolition of death duties. The Treasurer made an announcement in his Budget Speech that will be of great benefit to the farming community, although it appears to have attracted little attention. He announced that to minimize the effect of the altered timetable for death duty abolition, the concessions to rural estates are to be extended.

Honourable members will recall that in 1977 the Government provided for the doubling of death duty concessions on rural estates from \$150,000 to \$300,000 to specified beneficiaries. The Government will now relax the conditions associated with the concession, so that the beneficiaries need not be dependent on the estate to qualify for the concession. By this concession, together with the other steps taken by the Government to reduce the incidence of death duties since it came to office in May 1976—that is, the abolition of death duty on estates passing to surviving spouses and a one-third reduction of death duty payable in respect of property passing to all other classes of beneficiary—the Wran Government has done far more in this area than the former non-Labor Government did in its eleven years of office.

The aspects of the Budget to which I wish to draw special attention are the major expenditures announced in regard to the development of the State's mineral and energy resources. The Budget provides for an allocation of \$12.4 million to the Department of Mineral Resources. That is an increase of 25 per cent over the allocation for the previous year. The Treasurer announced that, within this total allocation, \$2 million has been provided for the exploration and prospecting account. That will allow the start of the most extensive and scientific assessment of coal resources ever undertaken in New South Wales. The importance of coal to the economy of New South Wales and Australia cannot be stressed too much.

Recently the Joint Coal Board announced the results of a major assessment of the State's coal resources. That assessment has brought the total estimate to 513 billion tonnes, compared with an earlier assessment some six years ago of about 112 billion tonnes. New South Wales has enough recoverable black coal reserves to support its present mining rate for 250 years. In terms of energy equivalent, the known coal resources of New South Wales and Queensland now exceed Saudi Arabia's proven crude oil reserves of about 150 billion barrels. Most of the additions to measured and indicated coal reserves in this State have been outlined in the Upper Hunter Valley, where intensive prospecting has been carried out in recent years.

At present collieries in New South Wales mine about 50 million tonnes of raw coal a year, to yield about 42 million tonnes of marketable coal. About one-half of this production is consumed by the State's electric power stations, steelworks and other industries. Most of the remainder is exported. In 1978-79 coal was Australia's largest export income-earner, comprising \$1,519 million of a total market of \$14,274 million. The major importer of Australian coal was Japan, which took 25.6 million tonnes, worth \$1,081 million.

The information obtained from that survey of coal resources will not only facilitate the proper management of the State's coal, but also maximize the Government's ability to gain proper returns to the people of the State when terms are being negotiated with mining companies in connection with the allocation of mining leases. In order to facilitate coal exports, the Government is proceeding with its programme for the expansion of coal loading facilities. The upgrading of the Balmain coal loader is expected to be completed this financial year, increasing its capacity to 4.5 million tonnes per annum. Also, the main contract for the construction of the new coal loader at Port Kembla, which will have a capacity of 14 million tonnes per annum, will be let this year. The cost of those two projects, including associated rail services, is estimated to be \$140 million at current costs.

I shall now refer to some specific coal mining and prospecting initiatives. Recently, the Government called tenders for five exploration permits over areas in the Boggabri, Denman, Camden and Oaklands regions of the State. These permits, when granted, will allow the successful tenderers to explore the areas to prove the coal reserves, and coalmining titles could ultimately issue. Recently, seven coal authorization areas were set aside in the Aberdeen—Muswellbrook—Terry's Plains area of the Upper Hunter region. Authorizations under section 20 of the Coal Mining Act have been granted in respect of some of the areas. The remainder are expected to be recommended for grant shortly.

It is expected that reserves of coal suitable for both open cut and underground development will be proved as a result of exploration of the authorization areas. The companies involved in exploring the

areas are Thiess Bros Limited, Bayswater Colliery Co. Pty Limited, Muswellbrook Coal Co. Pty Limited, and Mount Sargarloaf Collieries Pty Limited. The Electricity Commission of New South Wales holds two of the areas. The commission plans to develop one area for power station supplies and the other as an export venture in association with private companies and Japanese interests.

In the western coalfields area, five coal authorization areas were set aside recently. The companies involved in exploring in the western areas are Wallerawang Collieries Limited, Western Main Collieries Pty Limited, Invincible Colliery Limited and Genders Mining Pty Limited. The areas to which I have referred were set aside to provide replacements for or extensions to existing collieries reaching the end of their life. The Electricity Commission of New South Wales also has had an area set aside in the western district for power generation purposes. At Ulan, an area has been set aside and an authorization to prospect for coal has been granted to Energy Recycling Corporation Pty Limited, to encourage the company in its endeavour to establish its revolutionary coal processing and transportation plans.

I know that this matter has attracted the close interest of the Hon. E. P. Pickering. At this point I emphasize that Energy Recycling Corporation has been given not a coalmining title but only an authorization to prospect for two years. The State will derive the benefit that may accrue from the exploration activity of the company in the authorization area, assuming that coal reserves are proved. Moreover, the company will have to demonstrate within the two-year period the validity and viability of its coal processing and transportation plans. So far as coalmining titles are concerned, a lease was granted recently to J. & A. Brown and Abermain Seaham Collieries Limited to establish the Hunter Valley No. 1 colliery and an investigation has commenced in regard to proposed Hunter Valley No. 2 area. R. W. Miller and Co. Pty Limited is proceeding to the grant of a coalmining title in respect of the company's Mount Thorley venture and it is expected that this title will be granted in the near future.

For many years interest in exploration for petroleum in New South Wales was at a low ebb. However, commencing at the end of June 1979 an increasing interest has been evidenced by the lodgment at that time of six petroleum exploration licence applications for areas east and south of Broken Hill. The major factor motivating this upsurge in exploration activity is thought to be the high price now paid for oil on the world market. Nevertheless, a contributing factor has been the policy of the Department of Mineral Resources and Development of promoting areas considered most prospective by having promotional packages prepared by groups of consultants for the areas known as the Darling depression and the Clarence-Moreton basin. These two packages will cost the department about \$44,000 and will be aimed primarily at selling the idea of exploration in these two areas at board room level. To assist the programme I have mentioned, both areas have been placed under exempting reserves for the time being.

Between 1st July and 13th September, 1979, a further twenty petroleum exploration licence applications have been lodged, of which twelve were in the name of Bridge Oil Limited in conjunction with the Australian Gas Light Company for a total area of 118900 square kilometres. The Moomba gas pipeline traverses some of the areas applied for by Bridge Oil Limited and the Australian Gas Light Company, and gas from any viable field that may be discovered there could easily be piped to the Sydney, Newcastle and Wollongong markets. So far as petroleum research offshore is concerned, the responsible Minister in another place, the Hon. R. J. Mulock, as the designated authority, on 1st September, 1978, invited applications for permits under the Petroleum (Submerged Lands) Act, 1967, over the adjacent area of New South Wales; that is, the area eastwards from low water mark of the coast. One application was lodged as a result and is being processed at present. Also in the area of off-shore exploration the Department of Mineral Resources and Development, with the agreement of the Commonwealth Government, recently granted two exploration licences over off-shore areas to Goldfields Exploration Pty Limited to prospect for marine aggregate. Further investigations are at present being carried out to enable the Minister to invite exploration licences applications from Parley & Lewers Limited and Pioneer Concrete (NSW) Pty Limited over designated areas to prospect for marine aggregate.

I turn now to the topic of energy. The Treasurer stated in his Budget Speech that the Energy Authority, which was established by the Government in November 1976, will receive an allocation of \$5 million, which is an increase of \$1.9 million over the allocation for the previous year. This allocation is intended to promote a programme of research into new energy sources and energy conservation in association with universities and private industry. A number of solar energy projects will receive

Government support from the funds made available to the Energy Authority. The Government is providing \$450,000 to support, in co-operation with other governments in Australia, a national energy conservation programme. Also, the Government has set aside \$390,000 for the joint feasibility study at present in progress with the West German, Australian, Victorian and Queensland governments to investigate the suitability of a German process of coal liquefaction. The State Government will also continue its own efforts in energy conservation, including the conversion of its motor vehicles to liquefied petroleum gas. I note that the Leader of the Government, the Hon. D. P. Landa, has set a good example in this regard by having his ministerial car converted to use LPG fuel.

It is most unfortunate, to say the least, that last week a serious incident occurred involving an LPG powered taxi in Newcastle. The LPG tank in the taxi in question exploded, destroying the vehicle and injuring the driver. The Minister for Industrial Relations, Minister for Technology and Minister for Energy and the Minister for Transport are to be commended for their prompt action in arranging for defect notices to be issued in respect of all motor vehicles fitted with LPG tanks supplied by Rheem Australia Limited. Liquefied petroleum gas is a highly volatile substance and the strictest standards are necessary and justified in connection with its use.

Having regard to the State's huge coal resources, to which I have referred previously, it is apparent that New South Wales should expand rapidly its electricity generating capacity. This is, in fact, happening and the State is now in the process of the biggest electricity generation expansion in the history of the Electricity Commission of New South Wales. The Government's expenditure in the energy area amounts to about \$350 million this year, representing an increase of more than \$130 million, or 60 per cent, on last year's expenditure. The Electricity Commission will spend almost \$280 million in 1979-80 on power station development; an increase of more than 30 per cent on last year. The largest power station *in* Australia is under construction at Eraring on Lake Macquarie, near substantial coal reserves. This year construction will commence of a new power station at Bayswater, near Muswellbrook. A third new power station is planned for Mount Piper, in the western coalfields, with construction due to commence in 1982. The State's present installed electricity capacity produced from coal is 7737 megawatts. By 1990, the Government plans to have 14837 megawatts produced from coal, almost doubling output in ten years. This rapid development of electricity generating capacity will be absolutely vital to the industrial expansion of New South Wales and will be especially essential to the establishment of the huge aluminium smelters projected for the Hunter Valley.

The Government is proceeding with the electrification of the busiest sections of the State's railway system. The first step will be electrification of the Gosford- Newcastle line at a current cost of \$116 million, of which \$18 million will be spent this year. It is intended later to extend electrification to Muswellbrook, as well as to electrify from Sydney to Goulburn and Sydney to Wollongong. Rail electrification is an obvious and important means by which coal fired electricity will replace oil use.

An important component of the energy mix in New South Wales is natural gas. The Minister for Industrial Relations, Minister for Technology and Minister for Energy, the Hon. P. D. Hills, stated recently that natural gas must be permitted to continue its market penetration to replace oil. He said also that natural gas should not replace coal, whenever coal is a more suitable alternative. These are common- sense propositions with which, I imagine, most honourable members would agree. Transmission of natural gas from Moomba in South Australia to Sydney commenced in December 1976. The Australian Gas Light Company is now giving top priority to the construction of a 20-inch pipeline to serve the large domestic and industrial markets in Newcastle. The pipeline to Newcastle is expected to be completed towards the end of 1980 and should provide sufficient capacity to cope with the needs of Newcastle consumers for at least twenty years. For the people and industries of Newcastle, natural gas will have great importance, for it will bring to an end the rapid succession of price rises in manufactured gas brought about by cost increases for LPG and naphtha.

All country gas undertakings in New South Wales, except at Wollongong, Albury and Bowral, use liquefied petroleum gas for gas manufacture and distribution. These undertakings no longer compete with electricity production, which is considerably cheaper. Newcastle gas consumers are paying considerably more for their manufactured gas than Sydney consumers pay for natural gas but, fortunately,

that situation will ease when the natural gas pipeline to that city is completed. However, many country towns do not have any hope of obtaining natural gas and accordingly are in a much less fortunate position. The Minister for Industrial Relations, Minister for Technology and Minister for Energy, the Hon. P. D. Hills, has made representations to the Commonwealth Government concerning the price increases awarded by the Prices Justification Tribunal for LPG, with little practical response to date. LPG price rises have far exceeded price increases for petroleum.

Between November 1976 and August 1979 the price of premium motor spirit rose by 114 per cent. In the same period the price of propane rose by 190 per cent and butane by 228 per cent. The rate of increase of Australian-produced LPG has outstripped even the increase in the cost of oil imported from members of the Organization of Petroleum Exporting Countries. The Prices Justification Tribunal is allowing LPG produced from local refineries to be sold in Australia for a much higher price than is paid for it overseas. Two further anomalies are that, although Bass Strait LPG is not subject to the Prices Justification Tribunal, the federal Government passes on the Prices Justification Tribunal increases anyway, and \$13 per tonne more is paid in New South Wales for LPG, compared with the price paid for it in Victoria. This pricing is above export parity and is totally unjustified.

As to natural gas, it is clear that this Australian energy resource can make a huge contribution to the new energy mix and help to lessen our present dependency on oil. In its recent national energy policy statement, the federal Government has agreed to the request of Australian Gas Light Company and the New South Wales Government to authorize the Pipeline Authority to build a spur line from Young to Wagga Wagga and Cootamundra. There is a possibility of a later extension of this pipeline to Albury, thereby providing a link between New South Wales and the Bass Strait fields of Victoria. Australian Gas Light Company is having discussions with the Pipeline Authority and the councils of Bathurst, Orange and Lithgow, with a view to another spur line going north from Young to reach industries and domestic users in those towns. The main pipeline from Moomba in South Australia to Wilton in New South Wales passes quite close to Goulburn. At the insistence of Mr Hills, discussions have taken place regarding the supply of natural gas to Goulburn and there is every indication that these negotiations will prove to be successful. Mr Hills has expressed the view that the federal Government should facilitate construction of a pipeline to Canberra, as the main pipeline across New South Wales comes within easy reach of the federal capital.

The growth of natural gas usage by industries in New South Wales has been quite remarkable. When AGL commenced selling natural gas, its industrial market comprised 30 per cent of sales. In 1978, the industrial market was 59 per cent. This year it is 67 per cent and the company expects that industries will comprise 80 per cent of the natural gas market in the near future. The great problem with natural gas is that present estimates of natural gas usage in New South Wales and South Australia over the next thirty years actually exceed the known natural gas reserves in the Cooper Basin. However, there are vast reserves of natural gas on the North West Shelf in the Carnarvon Basin of Western Australia. Mr Hills has said repeatedly that a transcontinental pipeline is needed to link this resource with the Cooper Basin and the eastern States. This was the vision of the late Rex Connor and it is to be hoped that one day men of equal stature will bring his dream to reality.

Previously I mentioned the ridiculous pricing policies of the federal Government regarding LPG. Messrs G. W. Edwards and M. W. Thorpe, writing in the *Australian Quarterly* of June 1978, argued that natural gas should be priced at world parity levels. This is a view that I strongly disagree with and reject, in the same way as I support the Australian Labor Party's general rejection of import parity pricing for oil and petroleum products. There may well be a case for oil pricing to be import-parity related, that is, for a set percentage of the world price to be charged for indigenous oil in order to encourage oil exploration and conservation in Australia. However, it is quite another matter to maintain that Australian prices should be at world parity levels. This policy has built rampant inflation into the Australian economy and has led to huge windfall revenues to the oil producers and the federal Government, at the expense of millions of ordinary Australians.

It is confidently expected that at the OPEC price-fixing meeting in Caracas, Venezuela, next December, the OPEC market price will increase from \$US18 a barrel to something in excess of \$US20 a barrel. Every \$1 a barrel rise in the price of Australian crude oil increases federal Government revenue by about \$160 million. If the projected price rise to which I have referred occurs next December, the federal

Government's revenue will benefit by more than \$300 million on an annual basis, or between \$150 million and \$200 million in the second half of 1979-80 financial year. It is disastrous and unjustified, in my view, to maintain that the same world parity pricing policy should also be adopted for natural gas. However, I do not disagree with the view of Mr Paul Keating, federal Opposition spokesman on minerals and energy, that domestic gas prices should bear a realistic relativity to domestic oil prices. Unless this happens, gas, as Mr Keating says in his green paper on Australian energy and minerals policy, will be consumed in a profligate way and exploration will remain depressed.

While the New South Wales Government is, as I have indicated, engaged in -massive coal and electricity development and natural gas utilization, there is also a need to develop energy alternatives and, particularly, renewable energy resources such as solar energy and the production of ethanol from grain crops. Honourable members may be aware that the New South Wales Government recently commissioned the department of engineering at the Australian National University to construct an experimental solar power station at White Cliffs, New South Wales. This station, the first in Australia, will cost \$800,000 and is expected to be operative in eighteen months from now. At present, White Cliffs is supplied with electricity by several small diesel- fired generators. The prototype solar power station will supplement the existing electricity supply. The White Cliffs installation is thought to be the world's first high- temperature, high-concentration solar power station.

A substitute fuel which could contribute to Australia's domestic transport fuel requirements is ethyl alcohol, known as ethanol, produced from vegetable matter. Ethanol was used in Queensland between 1928 and 1956 in a 15 per cent ethanol and petrol blend. It has been used overseas in up to 30 per cent blends. At a recent seminar in the United States on alcohol fuel, or gasahol as it is commonly known, it was estimated that about 20 000 American farmers were growing grain for conversion to alcohol. Sales of gasahol in the United States started at two retail outlets in January 1978 and have expanded already to more than 1000 outlets in sixteen States. The major advantage of ethanol over other substitute fuels is that it is renewable. Ethanol is obtained from plants by the process of fermentation of sugar which is obtained either directly from a source such as sugar cane or, indirectly, through the hydrolysis of starch or cellulose. The starch yielding plant which has been the subject of the most research in recent years is cassava, or tapioca, as it is better known in Australia. In Australia there is a good potential for ethanol production from sugar cane, but cassava has the advantage over sugar cane that less than half the area of the land is required to produce the same quantity of fuel and it requires less irrigation and rainfall.

Recently a CSIRO study group which examined how much land would be available for energy crops in Australia came to the conclusion that there are about 26 million hectares of suitable undeveloped land, of which about 17 million hectares are in New South Wales and Queensland, west of the Great Dividing Range. The crops suggested by the study group for ethanol production include wheat, barley, rye, pearl millet, grain sorghum, sugar cane, cassava and sugar beet. The major problem regarding the use of ethanol in Australia is the cost of production. On the basis of world crude oil prices at October 1978 levels plant-derived fuels are expected to cost about two to three times as much to produce as petrol. In addition, turning plants into liquid fuel is rather costly in energy terms. The general efficiency of energy used in processing crude oil into petrol and distillate is 87 per cent, but only 33 per cent for converting cereal grains into ethanol. Despite the adverse factors I have mentioned, in the future plant-derived fuels are likely to become important transport fuels.

Another alternative liquid fuel, which has not been given much attention in Australia, is methanol. Either coal or natural gas can be used as the feed stock, but natural gas is preferable because a gas-to-methanol plant costs only about 50 per cent as much as a coal-to-methanol plant. For many years advanced technology for large-scale methanol production has been available. Methanol could contribute significantly to solving the liquid fuel shortage by blending with petrol. With blends up to 20 per cent it is possible to use methanol without major modification of the petrol engine. In Germany between May 1975 and June 1976, Volkswagen operated forty-five vehicles on methanol blends. Among the major conclusions of the test programme were that methanol blends are already an acceptable alternative of equal value to normal petrol and that methanol can improve the efficiency of an engine to the point where a 3 per cent energy saving can be achieved. Emission quality is also improved.

New Zealand has an acute and urgent energy problem of obtaining or providing sufficient liquid

transport fuels to keep its transport system operating. Already New Zealanders have to suffer the inconvenience of one carless day a week and bans on petrol sales at weekends. However, the providential discovery of the Maui natural gas field in the Taranaki Bight could provide the solution to New Zealand's energy problem. This field is thought to contain the gas equivalent in energy terms to 65 billion barrels of oil. On the basis of the Maui discovery, the New Zealand Government has decided to proceed with design work for a \$100 million methanol plant, using natural gas as the feed stock. This proposed plant will meet a 15 per cent methanol, 85 per cent petrol requirement for motor vehicles, as well as the total New Zealand domestic demand for chemical methanol. Having regard to the extent of our reserves of natural gas, Australia might well give some consideration to following the New Zealand methanol initiative. I trust that what I have said about minerals and energy matters has been of some interest to honourable members. I realize that the next time I speak I may not be heard in such respectful silence. However, I thank honourable members for their courtesy to me on this occasion and look forward to the next time I speak, even though I may attract some crossfire.