SUBMISSION TO SELECT SENATE COMMITTEE ON FUEL AND ENERGY

Intoduction: I submit that, on the basis of the Terms of Reference, the focus of the Inquiry (except in parts of 1.d.) is **fuel for transport**, rather than also the wider area of electric power generation, which the title of the Inquiry would suggest. Even here, the focus seems to be on the short-term political problem of achieving some credibility for the government in its professed desire to protect consumers (See 1.a.)

However, while only some of the points among these Terms of Reference will be addressed specifically (c, d and especially g), this submission is inspired by a recognition of the economic context of the issue of fuel supply for Australians, and the urgency of achieving more self-sufficiency.

PART A – The AUSTRALIAN CONTEXT

1. Local Oil Production.

   The Minister for Energy, Martin Ferguson, has pointed out that local oil production will be as low as 20% of needs by 2015, unless new and accessible fields are brought onstream very soon. Even if world supplies are maintained in the face of extra demand from emerging countries, prices cannot be expected to decline very much in the long term. Australia is no longer largely self-sufficient , as it was in the early 1990s, which means that this is an economic problem as much or more than an environmental and resource one.

2. The Price of Oil.

   At in excess of $100 per barrel, at the very least, oil imports will not be sustainable. Even if the Australian dollar remains high against the US dollar, rising oil imports (80% of needs), along with rising oil prices, will add a conservative $50b per annum to a balance of payments deficit already in a snowballing state. If the Australian dollar drops, in response to market perceptions of the accumulated foreign debt (currently over $600b), then the impact of oil import costs would be far worse.

3. Alternatives to an Inevitable Crunch Time.

   To trust in the markets is facile, and they will not allow this situation to persist indefinitely – any more than they did in 1929-33 – and Australia will have to pay up or surrender economic sovereignty over its most valuable resources, that is,

unless self-sufficiency is achieved or import replacements found for oil, as well as many other items and much investment capital at present sourced overseas. With oil, the alternatives are increased local supplies, renewable fuels, fuel from coal, harnessing natural gas for transport, so-called “green” vehicles, and over the horizon technologies such as hydrogen cells. It is to be noted that these technologies will be both expensive and largely imported, cancelling out any economic advantages. Similarly “green” vehicles will continue to be expensive and largely imported, even if *assembled* in Australia, with the assistance of government financial inducements.

PART B – IN RESPONSE TO SPECIFIC TERMS OF REFERENCE

1.c. *the operation of the domestic petroleum, diesel and gas markets, including the fostering of maximum competition and provision of consumer information*;

Since the introduction of the 4c off shop dockets, the two major supermarket chains, Woolworth’s and Coles, together with Caltex and Shell fuel outlets, have secured most of the petrol market. The fuel price fluctuations from “Cheap Tuesday” to “Fleece-em Friday” make a mockery of any savings for the consumers, and many observers inside and outside of both the government and the parliament believe that Fuel-Watch would only endanger the low point of the price cycle faced by the consumer. I concur with this.

With regard to diesel prices, it is anomalous - and amazing to visitors from overseas – that the price for the less refined fuel is higher rather than lower than petrol. I have observed the opposite in Europe, where lower diesel prices have encouraged the spread of the more efficient engine in passenger vehicles. No credible explanation for this anomaly has been provided by the local fuel companies, nor am I aware of any hard questions being asked by government or statutory authorities.

1.d. *the impact of an emissions trading scheme on the fuel and energy industry*….

For consumers, the mixed signal given by the assurance that any impact of a carbon tax on fuel prices would be compensated with a decrease in excise is an indication of the convoluted mix of climate change response spin and electoral

considerations that are involved in the government's consideration of an ETS based ultimately on price signals. While the extent of the compensation would be questionable, at face value this is no price signal at all.

For the energy industry, however, the ETS is fraught with obstacles to continued and expanded employment and investment, together with uncertainty. Concerns raised by the Business Council of Australia are very real and sincere, and must not be waved aside as mere ambit clauses for industries scrambling for special treatment. In an area which I know well, the Latrobe Valley, there is talk of power stations going out of business, and investment in new equipment – for example, some large and very expensive condensers – has already been postponed.
For all of the government's promise of compensation for 'low income earners', at a level well below mean wages, consumers will suffer a decline in income and living standards, estimated in a New Zealand study at several thousands of dollars per person and as much as $100,000 for farmers and small businesses.

1.g. *the role of alternative fuels to petroleum and diesel, including but not limited to LPG, LNG, CNG, gas to liquids, coal to liquids, electricity and bio-fuels such as, but not limited to, ethanol*;

GAS

Liquefied Petroleum Gas (LPG) is a mixture of butane and propane, and as a by-product of the oil industry is subject to the same problems of local supplies dwindling in the future, with a consequent impact on Australia's trade deficits. Its cost benefit for the consumer, however, especially in view of the government subsidy for conversion, makes it a valued contribution to the fuel problem – if only in the same time frame as oil. The industry itself is very protective of its position as the favoured alternative to petrol and diesel, and has been the source of some disinformation about other alternatives!

Liquefied Natural Gas (LNG) is at present used successfully in heavy transport in the USA and the UK and probably elsewhere. Requiring heavy tanks and/or refrigeration, it would appear to have only limited scope for passenger vehicles, and any conversion would be far more complicated and expensive than current LPG requirements. Nevertheless, it is frustrating to see LNG exported for a few

cents per litre, while we import oil at $100 to $150 per barrel. Like hydrogen cells, it should be exploited for use in heavy road transport in this country, and investigated for future use in passenger vehicles.

Compressed Natural Gas (CNG) is a proven economical and environmentally-friendly alternative to petrol and diesel in passenger vehicles. It has only one inherent drawback, and that is the relatively large tank required for its use. At present there are a number of models available in the US, including the Honda GX and, I believe, a Ford. The use of such vehicles is restricted by the shortage of filling stations in the US, and the only alternative is the use of a home compressor from a domestic gas line. In SE Asia there are reports of its being used successfully in conjunction with diesel. CNG certainly has dual-fuel potential and with enormous local supplies would relieve both consumers and the imminent balance of payments crisis already alluded to. It has far more advantages than the plug-in electric car, with no call on power supplies or batteries to manufacture and dispose of, and is much safer than LPG, which is volatile and can be dangerous.

COAL

I am unaware of the difference between LNG and gas to liquids, but coal to liquids is a proven source of motor fuel, used successfully in wartime Germany and currently in South Africa. The technology was thoroughly explored by a Japanese company in the 1960s, with brown coal in Victoria's Latrobe Valley, but the then cost differential alongside oil led to the conclusion that it would not be economic. The test plant is no longer in Australia, having been returned to Japan, but the technology could be readily obtained from Japan or South Africa. Needless to say, at the current price of oil it would be a bargain!!

BIO-FUELS

Ethanol blended with petrol is our most accessible alternative fuel, answering every need: self sufficiency, import replacement, renewable, environmentally friendly and offering health benefits. It can be used safely in modern vehicles without modification at E 15% and at up to E 85% in Flex-fuel vehicles. In Europe recently I found the Ford Focus and Renault Megane available as E85 flex-fuel models for only a few hundred euros over their basic prices. The

intention of Ford Australia to build the Focus at Broadmeadows from 2011 would be a great contribution to local consumers and the economy in general, if it included the option of a flex-fuel model and a choice of blends up to E85 were widely available, as it is in Europe, Brazil and the USA.

At present, in spite of the excise exemption, there are only two relatively small chains of independent Australian operators providing E10 at 4c lower than the prevailing price. Many consumers are still wary because of a scare campaign in the mid 1990s, alleging that E10 damaged car engines. At the same time, US car manufacturers of the same models advised that E10 and E15 were perfectly safe. Shell still piously announces that its 91 Octane unleaded petrol 'Contains No Ethanol', while deriving most of the boost in its 95 Octane unleaded from ethanol – and charging up to 12c per litre for it. As the owner of a car which requires 95 Octane, I am particularly grateful for United and Liberty E10, which gives me a near-enough 94 Octane – and saves me 4c per litre from the basic unleaded price!

Sugar cane is a far more efficient source of ethanol than wheat or corn by a ratio of 1.6 for the energy output compared with energy input in the distilling process, and future biological methods for extraction would maintain this inherent higher value. Negative arguments involving costs of distillation and transport also typically ignore much of the similar cost involved in refining petroleum.

The latest argument against ethanol, popularised by Oxfam and other organisations, is that it is causing world food shortages by taking up land and surplus grain in the USA and Europe which would otherwise have helped feed a hungry world. This argument has apparently appealed to some Australian politicians, who have echoed it in their public statements, but it has no bearing on the Australian situation. It is probably true of land given to palm oil plantations in some tropical countries, and while possibly true about reduced food handouts from the USA and Europe to African nations, it neglects the disincentive to local farmers there caused by cheap or free foodstocks from abroad.

In Australia, there is no moral argument against ethanol from sugar cane, which increasingly provides most of local supplies, as it does in Brazil. Retailers of E10

source most of their ethanol from CSR Sugar Mills, which seems to feel little incentive to expand production, but this may change with moves in NSW and QLD to mandate a small percentage of ethanol blended with petrol. The low price for sugar received by Australian growers, who are unable to export on a glutted and largely subsidised overseas market, keeps them captive to CSR until there is a rapid expansion in demand. North Queensland has almost unlimited potential for expansion of its sugar cane industry to rival that of Brazil, which has the highest rate of ethanol use in the world and exports widely, especially to Japan.

As stated above, ethanol from sugar cane is a renewable energy source, for sugar cane, unlike petroleum, recycles carbon dioxide from the atmosphere, instead of unlocking it from beneath the earth where it was buried millions of years ago. It is not only environmentally friendly but helps public health in urban areas where lung damage is caused by petrol and diesel particulate from exhaust fumes. Even at E10 it contributes to 50% more efficient burning and eliminates much of the particulate produced by internal combustion.

Bio-diesel is also part of the solution to our needs, whether from oil-seed grown for the purpose or from recycled cooking oil. Many local governments use it for their large vehicles and many individuals make or recycle their own for use in diesel engines. In response to the argument concerning the depletion of foodstocks, it should be noted that a large segment of the vegetable oil on sale in Australian supermarkets is sourced from Malaysia and elsewhere in South-East Asia. There is no reason why, with the current and future high price for crude oil, the bio-diesel industry should not be expanded in this country.

CONCLUSION

There are many solutions to the economic and logistical problems posed by the high cost of imported fuel and future uncertain supplies. All of the areas mentioned in the Terms of Reference should be investigated. In particular, the real and imagined obstacles to expanding the use of bio-fuels should be addressed as a matter of urgency.

John J. Morrissey, (August 29, 2008)