

Submission by Eriks Velins: Senate Select Committee on Fuel and Energy

Question

a. the impact of higher petroleum (ie petrol), diesel and gas (ie automotive LPG) prices on:

I. families,

II. small business,

III. rural and regional Australia,

IV. grocery prices, and

V. key industries, including but not limited to tourism and transport;

Answer

Crude oil (ie petroleum), and products refined from it, including automotive LPG, are globally traded commodities managed by a global industry comprising exploration & production, shipping, refining, distribution and marketing companies, both publicly and State owned. Several thousand companies make up this industry. There are global prices for crude oils and LPG, influenced by production restrictions set by OPEC. There are regional prices for products influenced by the regional market and set by the entrepot refineries in Singapore. Australian refineries compete for global crude oil supplies and with imported products, as Australia is no longer self-sufficient in crude oil production nor in refining capacity. The local refineries' product prices must be, and are, globally competitive, reflecting the global supply/demand balance at that time.

Forecasts of demand for crude oil in the longer term remain high due to continuing demand in China and the emerging demand in India. During the recent boom, and the current period of global decline in demand, as well as low prices, cash flows from the State oil companies (representing some 80% of reserves) have been largely spent for other government purposes. The maintenance of existing fields has been reduced and little capital spent on maintaining existing production, as well as building new production capacity from undeveloped reserves. Publicly listed companies have also deferred or cancelled projects, though production has been maximised from their ageing facilities despite growing skills shortages. Thus long lags have been created between the time new demand can be identified and when the industry is able to meet that demand. The forecasts of new capacity in the short term have been halved. Current global spare production capacity is estimated to be in the range 2-4 million b/d, ie only 1-3 years' 'typical' demand growth, much less time than it would take to develop undeveloped reserves, let alone find and develop new reserves, which are often in the 5-15 years' range.

Overall, there has been, and remains, massive under-investment in the industry, which will result in rapidly rising prices once this recession is over, say to \$100/b, the level where they become the trigger for the next recession, as the \$60/b price was a contributing factor in this one. After all, OPEC has no incentive to produce

more oil than its cash requirements, given the massive losses it has suffered with its investments in the US. Also 'peak oil' has either arrived or will do so in the coming years, despite the regular publication of adequate but un-verified reserves and its effect will be to plateau the production of conventional oil and hence raise prices. A new price cycle is emerging around a much higher base price level.

No single government, nor company, nor individual can influence prices. Higher petroleum product prices clearly affect transport costs and all aspects of the economy but, provided underlying Australian prices remain globally competitive, should not be a cause for concern. Australia still has the fourth cheapest retail price of petrol and the sixth cheapest diesel in the OECD. As a result of this policy, Australia has a relatively inefficient and old vehicle fleet. Past employment policies have created and maintained a subsidised local vehicle manufacturing industry for many decades but which no longer meets Australia's rapidly changing vehicle needs. Additional rationalisation of that industry should be anticipated, given the restructuring now taking place of the US owned vehicle manufacturers in the US.

The Australian government has the power to determine the taxation of petroleum products, which then set the wholesale price for the consumer, the key variable in differing national product prices. Taxation of the oil industry remains a major contributor to government revenue and an incentive for governments to maintain the present level. The most expensive fuels in the OECD are already double Australia's, as other governments have used tax to change consumer behaviour with respect to consumption and emissions. Whilst there are always pressures to reduce the price of fuel, particularly when it is increasing, the challenge for governments is not to try to reduce fuel prices by reducing taxation, but to set policies to encourage the use of less fuel by using higher efficiency engines and efficient travel patterns and eliminate tariffs on imported vehicles to provide cheaper vehicles, thus reducing the total cost of transport. The elimination of the various subsidies for non-commercial renewable or alternative fuels can provide added funds in a less distorted transport market for more investment in public transport, or the present inadequate road network. Indeed, governments will need to build modern public transport networks in any case.

In order to adapt to this changing environment, consumers will need to acquire state-of-the-art vehicles, and adapt their lifestyle to the reality of higher prices and, possibly, higher transport costs.

Oil security or balance of payments concerns might require the provision of financial incentives, and risk sharing with producers, to manufacture transport fuels from natural gas or coal and thus reduce Australia's growing dependency upon imports. The meeting of possible future emissions' (including those for nitrous oxide) and engine efficiency targets requires clean fuels, including low sulphur petrol (low sulphur diesel became available only from the beginning of

2009!). The transfer to greater use of public transport can be encouraged by raising excise, as has been done in a number of EU countries, providing there is a relevant, cost effective and safe public transport infrastructure in the first place. The introduction of mandated fleet fuel efficiency targets had been effective in the mid 1980's and should be re-instated, for it provides a market framework in the absence of high prices. All these sound policy options will require capital investment and will be largely driven by external factors. The involvement by Government in the oil industry is therefore likely to grow.

However, the best way, indeed, the only way, for consumers to cope with these increases is by all governments managing the economy in a way which increases wealth, rather than distributes it differently or creates liabilities for future generations or creates the pre-conditions for future recessions, as is the present practice.

Question

b. the role and activities of the Petrol Commissioner, including whether the Petrol Commissioner reduces the price of petroleum (ie petrol);

Answer

The oil industry is probably the most investigated industry in Australia, the first Royal Commission having sat in the 1930's. Of critical importance was the Tariff Board Inquiry in 1969, which set the rules for the pricing and allocation of indigenous crude oil, which then set the rules for the oil exploration & production industry which persisted till 1986, when a free market for crude oil was finally permitted. But it was during the first OPEC crisis from 1973-75 that public inquiries reached their peak, starting with the second Royal Commission and the inquiry by the Prices Justification Tribunal (PJT, 1973), followed by an inquiry by the Trade Practices Commission and the Jackson Inquiry into Manufacturing Industries. During the subsequent years, the Petroleum Products Pricing Authority (PPPA, 1981), the Prices Surveillance Authority (PSA, 1984) and now the Australian Competition and Consumer Commission (ACCC, 1995) plus some State authorities, carried out over 50 more public inquiries. (See Fuel Taxation Inquiry, background papers: 'Previous reports on petroleum products', 2001). Other Acts for the upstream and downstream industries were also passed, partially in response to public pressures, and all had considerable influence upon the structure, operations and prospects for the industry.

Yet there has been no shortage of any product since 1973, indeed, even prior to that, other than during the occasional strike or equipment failure, yet Golden Fleece, Ampol, ACTU/Solo, Solo, Boral, TOTAL, AMOCO, Phillips and Mobil left the Australian downstream industry, presumably for commercial reasons, having been acquired by the four remaining majors, Caltex, BP, Shell and Esso. Two oil refineries have been shut down and one, including a luboil refinery, mothballed. Many thousands of service stations and some hundreds of distributors have been closed. And, of course, very few people are now employed in the industry. At the

same time, Coles and Woolworths have entered the market with their retailing expertise. An equivalent rationalisation of the upstream industry has also taken place.

If one now looks at the major influences during this period, then the rapid increases in oil prices in 1973-74 and 1978-80, followed by the rapid price collapses in 1986 and again in 1998, and then the large, but slower, price increases in 2003-8 have been significant upon both upstream and downstream. The excess refining capacity in the Far East during much of the 1990's affected profitability in Australia and was a contributing factor in delaying the introduction of the EURO fuel standards by over a decade. The liberation of the indigenous crude oil market in 1986 and the more recent liberation of the domestic natural gas market, gave new leases of life for upstream.

In contrast to such influences, the numerous prices commissioners since 1973 have ensured that enough of the industry survived to continue to meet demand, that intense competition was maintained and that unleaded petrol was able to be introduced in 1986. But no commissioner has ever been able to influence the price of crude oil or ultimately the price of petrol. Indeed, had the recent ones been able to do so in response to populist pressures upon the Government, there would have been shortages and the need to ration, as the majors optimise their operations on a global basis, particularly during periods of resource or profitability constraints.

There is no case for a Petrol Commissioner due to the competitive and strategic nature of this dynamic industry and its long history of working in the national interest. The position of Prices Commissioner should be terminated, for the costs of its bureaucracy, as well as of compliance by companies, could be better used for meaningful priorities. Fuel represents a relatively small proportion of transport costs and Government efforts could be better directed to reducing the cost of vehicles and all other government imposts, thus better managing the total cost of transport.

Question

c. the operation of the domestic petroleum (ie petrol), diesel and gas (ie automotive LPG) markets, including the fostering of maximum competition and consumer information;

Answer

The numerous public inquiries since 1973 have confirmed that the market had fostered competition and had served the interests of the consumer well, despite the reduction of participants in this market. Adequate price information is available on site, from the motoring organisations and from the majors.

Question

d. the impact of an emissions trading scheme on the fuel and energy industry, including but not limited to:

I. prices,

II. employment in the fuel and energy industries, and any related adverse impacts on regional centres reliant on these industries,

III. domestic energy supply, and

IV. future investment in fuel and energy infrastructure;

Answer

I. At this moment, transport appears to have been excluded from the emissions trading scheme. Clearly that is not logical, given that it is the third largest contributor to greenhouse gases, after electricity generation and agriculture. Neither has any consideration been given to nitrous oxide from vehicles, a gas produced by the catalytic converters, with has far greater impact upon the greenhouse effect than carbon dioxide.

The Government could set an emissions ceiling upon a company or refinery, a cost borne initially by the refiner. One should, however, recognise that refinery energy consumption has been virtually halved since 1973-74, despite an increase in production of more energy intensive products and further reductions will be either prohibitively expensive or technologically unfeasible. Indeed, such imposts may trigger further shutdowns of refining capacity and thus reduce refining capability, a strategic aspect which should not be ignored.

Application of an emissions trading scheme to transport is difficult but the imposition of an additional petrol and diesel excise to encourage the move to more fuel efficient vehicles, and the use of clean fuels, would also have the desired effect. Diesel, if subject to a differential excise, would be most effective in reducing emissions. There are no technological barriers to this approach.

II. Answer to Question b provided some of the changes to industry structure and employment. There are no reasons to suspect that employment will not continue to decline, for there remains scope for introduction of more remote/automated operation of facilities, economies of scale in refining, distribution and marketing, optimisation of regional supply sources and further reductions in back office activities and corporate services.

III. The majors optimise their investments on a global basis and while their local operations meet their investment criteria, the local market will continue to be supplied. However, nine large companies and a good many small ones have left the industry since 1973-74, leaving four, now larger, companies to continue operations.

This downstream industry requires large ongoing capital investment in order to respond to new supply, demand and product quality challenges as well as to keep current assets in good working order. At this moment the publicly listed

companies appear to have an adequate cash flow for such purposes. But even one major GTL project might create financing problems, assuming it would rise to the top of the global seriatim, apart from the inordinate time now required to secure the necessary approvals for its construction and operation.

IV. Any investment decision includes a view of demand, the availability of feedstocks, the ability to manage sovereign, commercial and technological risk, the local geology in case of upstream and the cost of capital, all in a global corporate portfolio context.

Australian refineries have a degree of structural protection by freight costs, a local market infrastructure, customer knowledge and some local product specifications.

Expansion of refining started in the 1950's following cessation of petrol rationing in 1950, and the imposition of a small protective tariff, which was subsequently removed. Construction of luboil refineries began in the 1960's, also under a tariff which too was later removed. Whilst some expansion of these now seven oil refineries and three luboil refineries has taken place over time, they are old and small by a factor in the range 4-7 relative to the large regional (export) refineries.

With demand growing at 1-2% pa, no single refiner can justify an expansion on demand alone. But there are other considerations as well. Conversion of the vehicle fleet to state-of-the-art vehicles could reduce consumption by half, an unacceptable risk for the refiner. Imported crude oils are likely to be of lower API in future, requiring expensive hydrocracking or hydrogen and thermal treatment processes, and refineries may be forced to use more condensates. There is not an economic case to invest in new refineries, or even expand old refineries, in Australia. But refineries in Australia will operate for longer than might be the rational economic case. Prohibitive cost of soil remediation, should it be decided to close operations, acts as a real deterrent to exit.

The downstream oil industry does have some ongoing strategic problems. One way out of this dilemma would be to build one or two gas GTL plants modified to become diesel refineries, with some production of petrol and jet fuel, and funded by one or more present industry members under some arrangement with the Government on managing commercial and sovereign risk. That would require an acceptable and agreed national oil industry plan, for such projects would imply the shutdown of one or more of the present oil refineries, as the regional export markets once supplied from Australia are now better served by the large entrepot refineries in the region for exports from Australia are unlikely to be competitive with them. Unfortunately present crude oil prices appear to be too low for a commercial investment, whilst it is not possible to forecast whether future prices would be high enough and stable for long enough to justify such a project, given the likelihood of new price cycles. Therefore this investment decision is one for the Government based on the acceptable level of risk of supply of future

transport fuels. But that would prepare Australia for the transition to post 'peak oil' operations and an essential next step in the restructuring of the economy under an effective emissions trading regime.

Question

e. the existing set of state government regulatory powers as they relate to petroleum (ie petrol), diesel and gas (ie automotive LPG) products;

Answer

I am unable to respond to this question.

Question

f. taxation arrangements on petroleum (ie petrol), diesel and gas (ie automotive LPG) products including:

- I. Commonwealth excise,**
- II. the goods and services tax, and**
- III. the state and federal taxes**

Answer

I.A fuel excise reform took place in June 2004 and was implemented in July 2006.This addressed the numerous anomalies which had been created since its inception. Unfortunately this reform also introduced new anomalies:

- a. ongoing subsidies via a lower excise for biodiesel, LPG, ethanol, LNG, methanol and CNG;

LPG, LNG and ethanol are globally traded commodities which therefore set the import/export parity price for Australian producers. Australia imports some automotive LPG and, possibly, biodiesel, and may need to import wheat for manufacture of (mandated) ethanol during drought. All forecasts of future demand indicate that these alternatives and renewables will constitute but a small fraction of the supply, generally in niche markets. Current subsidies have not encouraged the development of new technologies nor industries, nor conservation of fuel, nor changing consumer behaviour.

There is no strategic, technical, commercial or environmental case to increase artificially the consumption of any fuel, particularly these alternatives and renewables. All subsidies should be terminated, as well as related subsidies for equipment and their mandated blending into conventional fuels.

- b. lack of consideration of environmental impacts; and

Some European governments have increased excise on petrol and diesel and set tighter fuel quality standards, in order to reduce consumption ie to reduce emissions of greenhouse gases and lessen dependency on imports of crude oil and products. That policy has been very effective. The present low crude oil price

is therefore an opportune time for Australia to increase excise by, say 10-15 c/l, in order to initiate an upgrading of the vehicle fleet.

c. rejection of differentiated petrol/diesel excise.

The last excise reform recognised that energy content is different for different fuels and an excise of roughly 1c per MJ/l was determined. Diesel has higher energy content than petrol, yet the same excise was retained.

The diesel cycle is much more efficient than the petrol cycle, which therefore means that much less diesel would be required to meet a particular transport task, resulting in lower emissions as well as in imports. It would be in the national interest to determine fuel specifications and excise by treating the engine and the fuel as a single system in the overall context of reducing emissions and thus creating the conditions for the lowest possible transport costs. A number of European governments have created a petrol/diesel differential excise in order to achieve this objective and the results have been effective. It is recommended that Australia takes advantage of this experience by creating an excise differential of, say, 10 c/l.

II. There is no logic or argument why GST should be charged upon excise and such a practice should be terminated.

III. The oil industry has always been used by governments as a source of revenue due to ease of collection and governments now rely on this major source of revenue. Whilst lower taxes would clearly be beneficial for the consumer and the industry, it is difficult to see how that would change consumer behaviour with respect to emissions and efficiency in a controlled manner. Such change now relies on the inevitable crisis such as 'peak oil', a much more disruptive process. Hence an increased excise on environmental and security grounds can be justified.

Question

g. the role of alternative fuels to petroleum (ie petrol) 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;

Answer

Any optimum national fuels mix is likely to include some alternatives and renewables, under equal excise and import parity pricing conditions, as they do have unique properties suitable for niche applications. The taxi industry is a good example for automotive LPG, even without the subsidy, as that product would otherwise have had to be exported. Other fuels will emerge in the right market conditions. But creation of such niche markets should not be artificially stimulated due to the inevitable creation of market distortions.

Gas (GTL) and coal to liquids is in a different category, with liquids from gas being substantially cheaper than from coal. Firstly, because these processes can produce a variable mix of naphtha, kerosene and diesel, the diesel being of a particularly high quality which can further improve the efficiency of the diesel engine. A GTL plant will have a significant impact upon supply, eg only two commercially sized plants could meet all of Australia's diesel requirements, but would create integration issues for the current crude oil refineries. Secondly, both processes produce readily extractable carbon dioxide, thus largely avoiding the capture costs, which can then be safely and economically sequestered. Thirdly, the gas process is more expensive than refining crude oil and, given the need for additional infrastructure even in a 'gas processing hub', will need financial and risk incentives, particularly for handling the inevitable oil price cycle. Such subsidy could be justified as insurance against supply disruptions in mining, agriculture and commerce, particularly of diesel availability.

Electricity has been included in the list of fuels, as electric cars may become an option in the future. At this moment electric cars are expensive and have limited range, thus being able to be used only for going to work or for shopping, ie to be the second car. If they were to replace petrol or diesel cars in any numbers, new power stations would need to be built specifically for them, at which point consumers would need to accept the much higher cost of such electricity and hence the deteriorating economics of electric vehicles. Construction would also raise the issue of emissions control from coal fired power stations and residue disposal from nuclear ones, as only these fuels could provide affordable, safe and reliable supply, a policy aspect which governments should announce before such cars are placed on the market.

Biofuels have been adequately examined in a recent study by the Australian Academy of Technological Sciences and Engineering, (ATSE) 'Biofuels for Transport', Nov 2008. I support its conclusions.

Question

h. the domestic oil/gas exploration and refinement (ie refining) industry, with particular reference to:

I. the impact of Commonwealth, state and local government regulations on this industry,

II. increasing domestic oil/gas exploration and refinement (ie refining) activities, with a view to reducing Australia's reliance on imported oil, and

III. other tax incentives: and

Answer

I. As the oil industry is a global industry, all regulations to which it is subject must be globally competitive lest the Australian industry moves to countries where they are. Such moves have been evident in the upstream industry, with all major Australian companies now also pursuing activities overseas. In the downstream

sector, significant imports now take place and former exports have declined substantially. Uncertainty about future Government regulations is a key factor.

II. The refining industry faces difficult strategic decisions. That uncertainty has been created by the Government due to its inability to specify its emissions' targets (including nitrous oxide) and the emissions trading regime, the uncertainty of fuel demand and long term product quality, the uncertainty of crude oil supply, the push for the use of non-commercial niche fuels and the lack of clear strategic direction for this industry .I would not support any investment in the refining industry until this has been resolved.

The regulations affecting the domestic oil/gas exploration activities have been gradually made more competitive, for global competitiveness is a pre-requisite for all activities, as the exploration portfolio of a major is optimised on a global basis. Unfortunately that alone will not provide re-assurance that Australia could again become self sufficient in its crude oil supply. That depends upon geology, among other factors, over which the Government does not have any control.

Reduction of reliance on imported oil is an insurance issue which has a premium. This is difficult to determine from outside the industry, as there have been reported huge increases in construction and operating costs, and in the absence of a single operational commercially sized plant. At this moment the Government has refused to pay that premium, namely to set the financial incentives and help industry manage the commercial and technical risk of one to two commercially sized GTL plants using natural gas as feedstock.

III.I do not favour any tax incentives or protection, other than to address the crude oil supply security risk and for the provision of frontier geological data, for Governments can, and have, taken them away, just as easily as they were given, leaving the investor with an unacceptable sovereign risk. That is not the right base for high capital intensive long term investment.

Question

i. the impact of higher petroleum (ie petrol), diesel and gas (ie automotive LPG) prices on public transport systems, including the adequacy of public transport infrastructure and record of public transport investment by state governments.

Answer

Recent experience in Victoria with rapidly growing demand for public transport has confirmed that the consumer is price sensitive to fuel, even at the relatively low prices. That demand will continue to grow up to some travel demand plateau, say 15-20 % of the transport task, as prices continue to rise, for whatever reason. Nevertheless, that would still leave the majority of the transport task still in private hands.

Unfortunately, for many years the Victorian governments have completely neglected investment in public transport, trains in particular, for there has been a massive failure of planning and investment in infrastructure. There has been a total lack of integration of town planning with transport planning, no recognition of the present and future population growth, a series of crises in trains and roads arising from earlier government policy failures and a total lack of consideration of future oil price scenarios and their effect upon private and public transport demand.

Clearly a planning document, of which there have been many, has zero value if it is not supported by a meaningful budget and no recent government has had the courage, the funds and, perhaps, the basic skills, to address the problem, something which many large cities in developing countries have managed to do with relative ease. It is not yet evident that the Victorian Government really understands or wishes to understand the problem, given also the failure of other public services such as the provision of water.

7th May, 2009