

**SUBMISSION TO THE**  
**SENATE RURAL AND REGIONAL AFFAIRS AND TRANSPORT COMMITTEE**  
**INQUIRY INTO AUSTRALIA'S FUTURE OIL SUPPLY AND ALTERNATIVE**  
**TRANSPORT FUELS**  
**BY**  
**WESFARMERS KLEENHEAT GAS PTY LTD**  
**FEBRUARY 2006**

---

## **INTRODUCTION**

Kleenheat manufactures, markets and distributes Liquefied Petroleum Gas (LPG) and Liquefied Natural Gas (LNG).

The Government's White Paper, "Securing Australia's Energy Future", was released in June 2004. The White Paper established an integrated policy framework facilitating a number of issues, many highly relevant to LPG and LNG, including:

- developing Australia's energy resources: petrol and diesel are imported, LPG and LNG can be produced from indigenous resources with over 100 years of reserves;
- improving transport energy markets: currently the heavy vehicle market is powered 100% by diesel. Introducing LNG will facilitate fuel to fuel competition, which will help lower the costs of doing business;
- enhancing energy security: facilitating the development of an LNG industry and the further development of LPG will enable substitution options in the event of shortages, disruptions to supply or escalating international oil prices;
- lowering greenhouse emissions signature; LPG and LNG emit less greenhouse gas than petrol or diesel;
- improving air quality: the Government's Fuel Excise Reform paper makes the point that particulate emissions are "the most dangerous emission to human health". Particulate emissions from gaseous fuels are substantially less than petrol or diesel.
- the role of energy innovation in delivering prosperity, security and sustainability: To reorientate Australia's transport industry from liquid to gaseous fuels will require innovation. Indigenous gaseous fuels can support Australia's Road Freight Task to a much greater extent than is currently being achieved adding to the security and prosperity of Australia.

## TERMS OF REFERENCE

The Committee has asked Respondents to comment on:

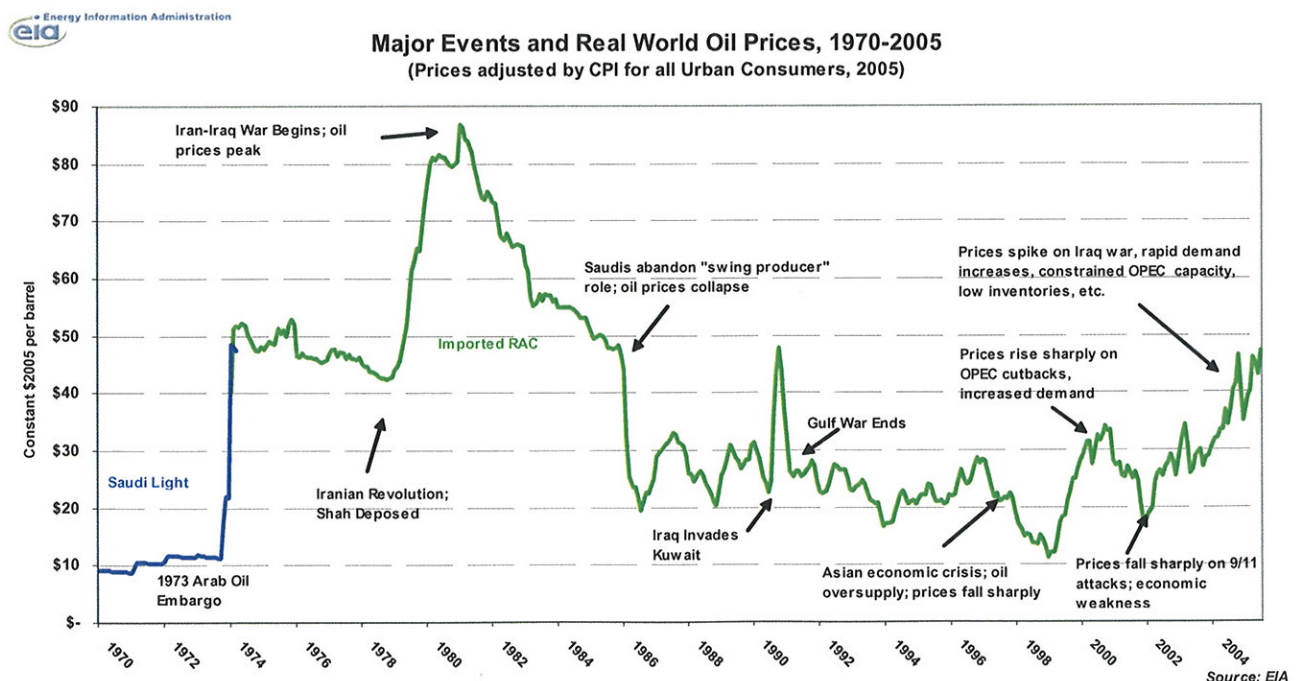
- a) projections of oil production and demand in Australia and globally and the implications for availability and pricing of transport fuels in Australia;
- b) potential of new sources of oil and alternative transport fuels to meet a significant share of Australia's fuel demands, taking into account technological developments and environmental and economic costs;
- c) flow-on economic and social impacts in Australia from continuing rises in the price of transport fuel and potential reductions in oil supply; and
- d) options for reducing Australia's transport fuel demands.

### A) Projections of Oil Production and Demand in Australia and Globally and the Implications for Availability and Pricing of Transport Fuels in Australia.

Kleenheat has no specific expert knowledge about projections of oil production and demand but is aware of discussions about "Peak Oil", the theory that the world's reserves of economically recoverable oil are diminishing. Kleenheat accepts that it is true that the world must have a finite amount of economically recoverable oil.

However it has no better idea than many commentators as to when the demand for economically recoverable oil will outstrip supply and precipitate the "Peak Oil" scenario. Kleenheat suggests significant economic tensions may occur before this point, because as the price of oil rises, more of the world's reserves will be able to be exploited economically. The actual point where demand outstrips supply may be at an oil price higher than the world has yet seen, including the 1979 price spike, and oil at these prices will have serious social and economic ramifications for Australia and the rest of the world.

The chart below from the US Government agency the Energy Information Association (EIA) shows how world oil prices have varied over recent time in response to major events up to August 2005 ([http://www.eia.doe.gov/emeu/CHRONOLOGIES/chron\\_aug2005.xls](http://www.eia.doe.gov/emeu/CHRONOLOGIES/chron_aug2005.xls)).



A rising oil price can be expected to have a number of consequences. More oil will be found to be economically recoverable, and it will become economically feasible to develop and exploit alternative fuels to oil.

Previous oil price “shocks” have been seen to occur quickly. The development of commercially viable alternative fuels will take time and if Australia is to mitigate the effects of possible future spikes in oil prices and or sustained higher oil prices, then it would be prudent to foster the development of commercially viable alternative fuels in anticipation of and preparation for a “Peak Oil” scenario.

**B) Potential of New Sources of Oil and Alternative Transport Fuels to Meet a Significant Share of Australia’s Fuel Demands, Taking into Account Technological Developments and Environmental and Economic Costs**

As the price of oil rises, new sources of commercially exploitable oil will be found and alternative fuels will become increasingly attractive as substitutes for oil on economic and other grounds. With rising oil prices it could be expected that alternative fuels would increasingly replace and substitute for oil transport fuels. The extent to which this substitution will occur and in which transport sectors – domestic motor vehicles, light trucks and buses, heavy vehicles, rail locomotives – will depend upon an array of factors, other than the price of oil, which are specific to each sector.

The starting point for the various substitution scenarios is the price of oil and it is not known what the price of oil will be in the future.

Initially the development of alternative fuels will be uneconomic and will require assistance. New or at least adapted technologies are needed in the production, storage, distribution and dispensing of the alternative fuels. The cost of unproductive capacity with the initial comparatively small volumes of alternative fuels sold, impacts heavily on a cents per litre basis and impedes the development of alternative fuels.

At various times, the traditional petroleum industry received grants, subsidies, tariff protection and a raft of other measures over the past one hundred years to foster its development. Likewise alternative fuel industries will also need assistance to develop.

New technologies have come with much promise which history shows is too often not delivered. Alternative fuel technologies are no different in this regard and each needs prudent, transparent and careful evaluation to ensure that assistance is granted according to valid economic and social criteria.

This has been recognised by Government in its Energy White Paper and its themes of “prosperity”, “security” and “sustainability”. The suite of assistance programmes available to the alternative fuels industry appear to be balanced in providing support for promising but as yet unproven fuels but rigorous evaluation should continue.

If the price of oil rises significantly and remains high, the cost of prudent assistance to the alternative fuels industry will be comparatively small. Depending on the extent of the rise in the price of oil, and the success in developing a commercially competitive alternative fuels industry, such assistance might be expected to have significant economic and social benefits.



**C) Flow-on Economic and Social Impacts in Australia from Continuing Rises in the Price of Transport Fuel and Potential Reductions in Oil Supply**

Continuing rises in the price of transport fuel and reductions in the supply of oil, which will lead to further price rises, will have detrimental economic and social effects in Australia and elsewhere.

Kleenheat has no data that would inform the debate as to what effects might occur at various hypothetical oil prices.

**D) Options for Reducing Australia's Transport Fuel Demands**

Kleenheat does not expect Australia's total transport fuel demand to decrease. It may decrease temporarily sometime due to an economic slowdown but in general terms, Kleenheat expects demand to steadily increase. It may be possible to attenuate the rate of increase by various measures but increases in population, prosperity and industrial activity can be anticipated to increase Australia's transport fuel demand.