

Australian Senate Rural and Regional Affairs and Transport References Committee Parliament House CANBERRA ACT 2600 24 February 2006

## $\frac{\text{SUBMISSION TO THE INQUIRY INTO FUTURE OIL SUPPLY AND ALTERNATIVE}}{\text{TRANSPORT FUELS}}$

#### Introduction

Ensuring a secure and diverse fuel supply at globally competitive costs with reliable and safe distribution networks is an important plank in an energy policy and essential to establishing a sustainable long term transport fuel strategy. The energy policy should include a fuel strategy that recognises supply strengths and environmental issues.

Australia's current energy policy and move to reduce excise on diesel and petrol in the heavy transport sector, will create a greater reliance on imported refined products. Australia's refinery production is currently unable to meet the large demand for petroleum products with the gap being increasingly met by imports. Future investment in refinery production is most unlikely in Australia given the high demand being generated by rapid growth in vehicle numbers in India and China.

Over the long run, fuel diversity in the transport fleet, which includes abundant domestically available energy forms, such as LPG, is an appropriate lever in managing overall energy security.

LPG clearly offers policy makers and consumers alike an immediate opportunity to:

- Reduce reliance on imports of crude and refined product namely diesel and petrol.
- Reinforce existing government policy for alternative fuels to enable a greater use.
- Assist the local six cylinder car manufacturing industry by ensuring a greater take up of LPG vehicles
- Reduce greenhouse emissions and deliver significant health benefits.

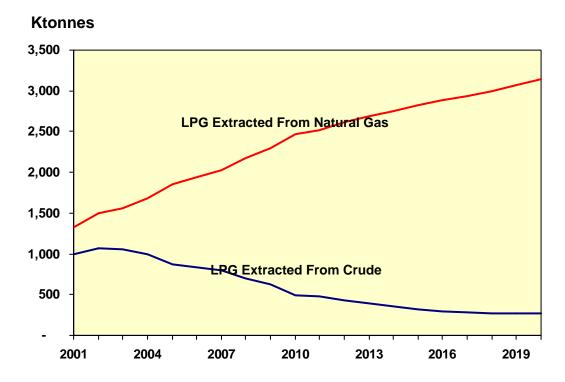
#### Projections of LPG production and supply in Australia

The future supply scenario for LPG in Australia is in complete contrast to traditional transport fuels as production exceeds demand allowing LPG to make a significant contribution to a secure, sustainable, transport energy supply in Australia under scenarios of normal and disrupted liquid fuel supply.

LPG has an abundant long-term supply from naturally occurring Australian sources. Abundant local supply of LPG provides a real alternative to importation of oil and other fuels at a time of rising oil prices, a scenario which is predicted to continue.



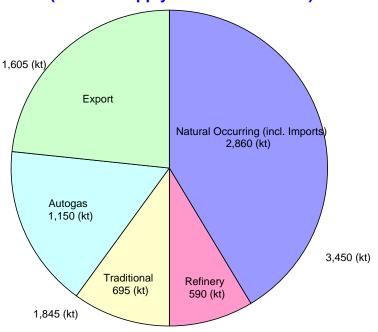
## Australian LPG Production from Natural Gas and Crude Oil to 2020



The supply of LPG will continue to increase as new oil and gas fields are discovered. Australia uses two million tonnes of LPG a year and exports 1.6 million tonnes. An important economic benefit for Australia arises from the fact that LPG produced in the extraction of oil and gas and in the refinery process does not divert feedstock from other uses with the consequence that there is no economic cost to GDP and there is not a break even production cost which cannot be met without Government subsidy.



# 2005 Supply/Demand Balance (ALPGA Supply and Demand Data)

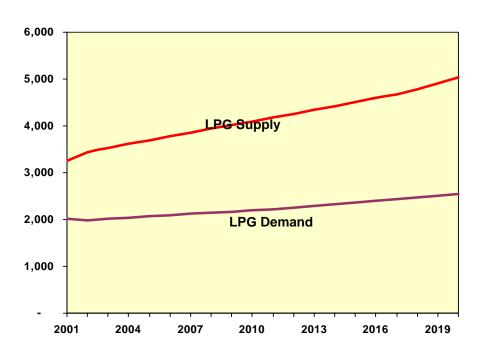


Substantial reserves of LPG continue to support LPG as Australia's premier alternative fuel at least up to 2020. Forecasts of Australia's production are contained in the authoritative ABARE study commissioned by the ALPGA in 2003 "Australian LP Gas Supply Research Study 2000 to 2020" (forwarded under separate cover). This paper establishes a national LPG production outlook and asserts that LPG will be increasingly derived from natural gas rather than crude oil production over the period of the study.



## Australian LPG Long Term Supply/Demand Forecast - 2020

## **Ktonnes**



Source: ABARE Study



Listed below however are specific LPG projects which will be available to supplement current LPG producing fields over the next decade.

#### **Bass Strait**

Exploration success by companies such as AWE, Origin, Santos, and Woodside, has established further wet gas reserves in Bass Strait, particularly in the Kipper and Yolla fields which are due mid this year for Yolla and 2008 for Kipper. LPG production in Bass Strait is expected to remain at the current level of 1 million tonnes pa to 1.2 million for the next 5 years.

### North West Shelf (NWS)

Expansion of natural gas production from the NWS in support of further liquefied natural gas (LNG) and domestic gas sales will give rise to increased production of LPG through the next decade. The NWS Joint Venture Partners (NWSJVP) plans to increase LPG production further with a 5th LNG train now sanctioned by the NWSJVP for commissioning in 2008. Production levels of LPG as a result of both the 4<sup>th</sup> and 5<sup>th</sup> Trains will lift from 800,000 tonnes in 2004 to 1.2 million tonnes pa in 2009.

#### Papua New Guinea (PNG) Project

Both State and Federal Government's would be aware of the current status of negotiation aimed at bringing PNG gas into Queensland. Once again, when natural gas from the PNG reserves is delivered from this project, substantial quantities of LPG of up to 700,000 tonnes per annum could result.

#### **Otway Basin**

New production by partners Woodside, Origin, Benares and Calenergy is expected to produce more than 100,000 tonnes pa in the second half of 2006

#### **World Pricing and Supply**

LPG is a world commodity, so local prices are subject to the patterns of supply and demand in the northern hemisphere in particular. Because local prices tend to track international prices, there is no diversion of LPG from the domestic market when prices rise in the northern hemisphere during winter. Australia's policy as a free trading nation is fully supported by the LPG industry. We export large quantities of LPG, but also manage local logistics costs by importing. The net supply position supports large exports and this will continue. The infrastructure is in place to be fully self-sufficient, if an energy supply crisis occurs.

#### LPG Can Reduce Reliance on Traditional Transport Fuels

The LPG industry has a well-established infrastructure for storage and distribution, which can handle at least double the domestic volume at current capacities. LPG is extensively available through a national network of over 3,500 service stations and retail and wholesale distributors servicing the agricultural, industrial, home heating, hot water heating and leisure markets.

There is a well established, world standard conversion and conversion kit supply industry spread around Australia supplying the after market and car manufacturers. This industry works closely



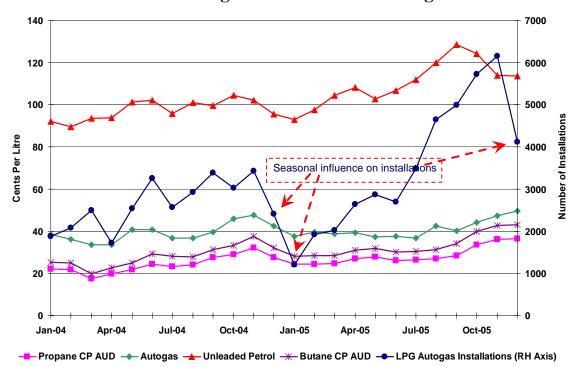
with the LPG industry and many of its members are members of, and work closely with, LPG Australia.

The LPG Industry Autogas Development Program started in 2004 in response to certainty created by government policy and has set a target of 10% share of transport fuels by 2010.

The Australian vehicle manufacturing industry offers a number of LPG models ranging from six cylinder sedans, station wagons, utilities and light commercial vans with either a dedicated or dual fuel option. The industry is also now introducing new technologies with fuel injection systems being made available for the first time delivering improved fuel performance and emissions.

The graph below shows the increased uptake of new LPG vehicles and conversion of existing vehicles due to the LPG Industry Autogas Development Program started in 2004 and the recent rises in petrol and diesel prices.

## LPG Autogas Installations vs Pricing



ULP and LPG Pricing data is Monthly Average Melbourne Metro (Source: FUELtrac). Autogas Installations based on Cylinder Sales Data (Source: LPG Australia)

#### **LPG Autogas Incentive Policies**

A recent study by the World LPG Association showed 17 countries gave a fuel tax exemption or large rebate to encourage use of LPG as a transport fuel and 7 countries gave a conversion or purchase incentive for LPG vehicles. In Australia the government has announced a \$1,000



incentive for all new Autogas installations for three years from July 1 2011 and a staged introduction of excise in 2.5 cent increments from 2011 capped at 12.5 cents in 2015.

### **Community Benefits and Social Goods**

As the leading established alternative fuel, LPG continues to make significant contributions to the reduction of gaseous pollutants, tail pipe greenhouse gas (GHG) emissions, and life cycle GHG emissions. The LPG market in Australia alone saves more than one million tonnes of greenhouse gas emissions from being emptied into the atmosphere each year.

Additionally LPG offers a number of other community health benefits and social goods through reduced emissions of air toxics and particulates. A recent World LPG Association study assessed particulate health costs of \$US600-\$US1, 000 per annum arising from a diesel-powered light delivery van travelling 30,000 kilometres a year. An LPG powered van performing the same task would generate a particle related health cost of less than \$US30 per annum. LPG makes a major contribution to the achievement of key environmental and economic objectives in Australia.

#### Summary

LPG is a well established, economically priced, alternative transport fuel which will continue to be developed to meet a share of Australia's fuel demands:

- Over the long run, fuel diversity in the transport fleet, which includes abundant domestically available energy forms, such as LPG, is an appropriate lever in managing overall energy security.
- LPG is able to replace other fuels in short run emergencies such as occurred for natural gas in Victoria following the Longford incident and with a production disruption at a Santos facility in South Australia.
- The Autogas scale economies support infrastructure which ensures reliable supplies of the product for the traditional market in regional Australia as well as the automotive market.
- LPG can help overcome the three main levels of security breach: global uncertainty; wholesale supply disruption of liquid fuels due to overseas events; and regional supply disruptions.
- LPG offers significant community health benefits through cleaner air and a reduction in GHG emissions.
- For all nations, energy security is part of national security. Reliance on fuel imports may be economically sound, but it highlights the necessity for having a fully developed supply plans to meet Australia's energy needs. Australia's increasing reliance on imported crude oil and finished petroleum products is also an issue for national security. LPG reduces this reliance.

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