Australia’s Experience in Alternative Transport Fuels

An Overview
Main alternative transport fuels in use in Australia

- Automotive LPG (Autogas)
  6% of transport need requirements by volume
  5% by energy content
- Plus <1 % in total comprised of:
  Natural Gas
- Biofuels: Ethanol, Biodiesel
- Hydrogen
- di-methyl ether
- Methanol
Government Policy Framework to Support Use and Production of Alternative Fuels

AIMS

• 350 million litre biofuels objective by 2010

• Ethanol & Biodiesel the 2 biofuels with commercial prospects in Australia

• the alternative fuels sector to develop and promote their products in the commercial marketplace

• ultimately to compete on commercial merits

• no government mandate on use of alternative transport fuels
Government Policy Framework (continued)

ZERO EXCISE ON ALTERNATIVE FUELS

• Effective zero rate of excise to 2011 via production grants offsets
• Phase in over 5 even annual steps from July 2011
• Excise rates to be based on energy content
  - high-energy (biodiesel)
  - mid-energy (LPG, LNG, Ethanol, di-methyl ether)
  - low-energy (methanol)
• 50% discount to apply to energy content excise rate
ETHANOL PRODUCTION GRANT

• Extended until 30 June 2011

• For production in Australia from biomass feedstock blended into or used as transport fuel

• As of January 2005, AUD37.3 million paid to Australia’s 3 fuel grade ethanol producers
Government Policy Framework (continued)

BIODIESEL PRODUCTION GRANT

- For production and importation of eligible biodiesel
- Administered under Energy Grants Cleaner Fuels Scheme
- To be progressively phased out from July 2011-July 2015
BIOFUELS CAPITAL GRANT PROGRAM

• AUD 37.6 million fund for one-off capital subsidies (16 cpl) for projects providing new or expanded biofuels capacity
  - to date, grants to 3 ethanol and 4 biodiesel plants

• Key criteria:
  - minimum production levels (eg, 5 million litres)
  - long-term commercial viability
  - use of renewable feedstock
  - regulatory compliance
  - evidence of firm contracts with domestic transport market
Government Policy Framework (continued)

ALTERNATIVE FUELS CONVERSION PROGRAM

- Grants up to 50% to operators and manufacturers to convert heavy commercial vehicles and buses to natural gas or LPG (or combination of either with conventional fuel)
  - offset cost of fuel conversions & upgrades
  - purchase of new vehicles

- Grants to help manufacturers to develop and test engine technologies that demonstrate greenhouse gas benefits and maintain air quality emissions performance
Government Policy Framework (continued)

**LPG CAPITAL GRANT**

- Introduction of AUD1,000 capital subsidy to consumers for purchase of new dedicated or dual-fuel LPG vehicle
- Available for 3 year period, July 2011-July 2014

**SUGAR ASSISTANCE PACKAGE**

- AUD75 million for diversification into value-adding and alternative products such as ethanol
Challenges to Uptake of Alternative Fuels

- Lack of competitively-priced alternatives

- LPG, CNG, LNG, Hydrogen
  - require engine modifications or specific engine technologies

- Biofuels
  - difficult to supply enough
  - would require transfer of land use from other productive purpose (eg, converting total national oilseed crop to biodiesel would yield only 6% of current diesel needs)
Challenges to Uptake of Alternative Fuels (continued)

- Long-life expectancy of existing fuel production and distribution infrastructure
- Existing stock of vehicles, with no significant change with next generation of vehicles which will include some hybrids
- Availability/Storage
- Public perception (eg, ‘ethanol blends damage engines’)
- Cost
Research & Development

Reducing production costs of alternative transport fuels