Biofuel production will not reduce the predicted rise in fuel prices. They will continue to be parity priced against petroleum and fossil gas based fuels.
Economic impacts can best be minimized by proactively reducing the per-capita demand for transport fuel.

d. Options for reducing Australia's transport fuel demands

This could be done by

1. Improving rail transport services and pedestrian amenity to increase use of these modes.

2. removing distorting cross-subsidies such as: diesel fuel rebates, concessional fringe benefit tax treatment of vehicles in salary packages, lower import duty for tall 4WD vehicles.
3. Removing imbalance in subsidization between Road freight and much more efficient rail freight.
4. Improving cycling conditions through widespread provision of separate cycling lanes on city commuter routes.
5. Increase the threshold power limit for registration of electric assisted bikes to a more realistic 300 Watts.
6. Mandate the planning of pedestrian and cycle routes to the main trip generators of new subdivision, and between them.

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COMMITTEE SECRETARY
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INQUIRY INTO AUSTRALIA'S FUTURE OIL SUPPLY AND ALTERNATIVE TRANSPORT FUELS

SUBMISSION

RESPONSES TO SPECIFIC TERMS OF REFERENCE (TOR) OF THE INQUIRY

a. Projections of oil production and demand in Australia and globally and the implications for availability and pricing of transport fuels in Australia.

As petroleum fuel prices increase, more commuters will shift to transport modes whose costs are unaffected by oil price. Fuel demand projections could be based on such mode shifts but the implication is that infrastructure such as rail and cycleways need to be in place to accommodate the increased demand.

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 costs.

Biofuels can only have a minor impact
The production of biomass for biofuels require significant fuel input, reducing the effective fuel reductions. Biodiesel also requires methanol in it's production which is also sourced from petroleum. Ethanol can only be used as a percentage of gasoline fuel.

Hydrogen
Hydrogen gas could be produced from renewable electricity sources, but the energy needed to compress this gas dramatically reduces the net amount of energy yielded. Then there is the problem that it ignites very easily at almost any air-fuel mixture – very dangerous stuff.

Compressed Air
Cars are currently being developed which run on compressed air. Compressed air can be produced by renewable power sources. The output of a compressed air car is cold air – very useful for air conditioning.

Mode Shift
In the same way that reducing water use is much more cost effective than developing alternative water sources to 'increase' water supply, reducing petroleum fuel use is more cost effective than producing alternative fuels.

Modal shift to cycling results in an almost 100% fuel reduction from what was used by a private vehicle use for the same trip.

c. Flow-on economic impacts in Australia from continuing rises in the price of transport fuel and potential reductions in oil supply.