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## Fuel Taxation Proposals

The Government, in the 2003–04 Budget, proposed changes to the way some fuels are taxed. The proposals, if implemented, would have important consequences. This Current Issues Brief examines the background to the proposals and their possible consequences.

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## **Glossary**

**Alternative fuels.** Alternatives to petrol and diesel. Include liquefied petroleum gas, compressed natural gas, ethanol, biodiesel, methanol, and dimethyl ether. Also referred to as petroleum product substitutes.

**Biodiesel.** Esterified vegetable oil produced from different oil-containing crops such as rapeseed and canola. Esterification is a way of transforming vegetable oil molecules similar to diesel hydrocarbons, although the production cost of such biodiesels exceeds those derived from crude oil.<sup>1</sup> Biodiesel can also be made from waste vegetable oils and animal fats.

**Biofuels.** The term commonly used to refer to ethanol and biodiesel.

**Diesel and Alternative Fuels Grants Scheme (DAFGS).** This scheme reduces transport costs to businesses in regional and rural Australia. The scheme provides a Federal grant to eligible businesses of 18.51 cents per litre for diesel fuel used and reduces the cost of eligible alternative fuels (compressed natural gas, liquefied petroleum gas, recycled waste oil, ethanol and canola oil). Generally, the grant is available to businesses for the on-road use of diesel and alternative fuels in vehicles that have a gross vehicle mass (GVM) of 4.5 tonnes or more and which are registered for use on public roads. For vehicles with a GVM of at least 4.5 tonnes but less than 20 tonnes, the grant is generally not payable for trips that are solely within a defined metropolitan area. The Government proposes to replace the DAFGS with the Energy Grants (Credits) Scheme on 1 July 2003. DAFGS is also referred to as the 'off-road' scheme.

**Diesel Fuel Rebate Scheme (DFRS).** The DFRS provides a rebate of customs or excise duty paid on diesel and 'like' fuels [heavy fuel oil, light fuel oil, and all fuels which attract the same rate of duty as diesel (except for gasoline, coal tar and coke oven distillates)] used in certain off-road business activities (the DFRS is also referred to as the 'off-road' scheme). Eligible activities include mining, agriculture, forestry, fishing, and rail and marine transport. The Government proposes to replace the DFRS with the Energy Grants (Credits) Scheme on 1 July 2003.

**Diesel sulphur standards.** There are two standards for the sulphur content of diesel. The first—500 parts per million (ppm)—came into effect on 31 December 2002. The second standard—50 ppm—is scheduled to come into effect on 1 January 2006.

**Energy (Grants) Credit Scheme.** Under this scheme, which is scheduled to come into effect on 1 July 2003, grants will be paid to certain industries for certain uses of diesel and alternative fuels on-road and off road. The scheme largely replicates (with modifications) the Diesel Fuel Rebate Scheme and the Diesel and Alternative Fuels Grants Scheme.

**Ethanol.** An alcohol ( $C_2H_5OH$ ), used for a variety of purposes. Fuel ethanol is ethanol blended with petrol and is used as a fuel for transport. Ethanol can also be blended with diesel to form diesehol.

**Excise and customs duties.** An excise is a tax imposed on the domestic production of a specified product, for example, tobacco or petrol. Customs duties are taxes imposed on imports. To achieve equitable tax treatment, a nexus generally exists between the rates of excise and customs duties.

**Externalities.** Air pollution and greenhouse gas emissions are 'external costs' or 'negative externalities' of fuel use. Externalities arise when one party imposes on, or provides to others, costs or benefits that are not captured in market transactions. For example, trucks impose 'negative' externalities such as noise and air pollution on residents living near highways, but there is no transaction whereby the users of the truck services compensate residents for their loss of amenity.

**Measures for a Better Environment.** The environmental measures the Government agreed with the Australian Democrats in order to pass the goods and services tax legislation through the Senate.

**Regular diesel.** Diesel containing more than 50 parts per million sulphur. Also referred to as 'high sulphur' diesel.

**Ultra low sulphur diesel (ULSD).** Diesel containing less than 50 parts per million sulphur. ULSD will be mandated on 1 January 2006. Also referred to as 'low sulphur' diesel.

## Executive Summary

The Government, in the 2003–04 Budget, proposed changes to the way some fuels are taxed. The proposals, if implemented, would have important consequences. The broad intent is to tax fuels on a more 'neutral' base compared with the current discrimination in the application of the tax burden among fuels, and to enhance the use of alternative fuels for environmental reasons.

The main elements of the proposals are:<sup>2</sup>

- Excise-exempt fuels (liquefied petroleum gas, compressed natural gas, liquefied natural gas) will remain exempt until 30 June 2008. All fuels used in internal combustion engines will be subject to excise from 1 July 2008. The excises will be phased in five equal annual steps until 1 July 2012 when the final excise rates will apply.
- The proposals for ethanol have two elements. The first is to extend the current arrangements—which expire on 18 September 2003—until 30 June 2008. Domestic production of ethanol is currently subsidised. The second element begins on 1 July 2008 and continues until 1 July 2012 when the final excise rate will apply. During this period, subsidies that reduce the effective rate of excise below the final rate will be paid for both domestically-produced and imported ethanol. The subsidies will be reduced in five equal annual instalments.
- From 18 September 2003, biodiesel will be subject to excise at the same rate as diesel. From 18 September 2003 until 30 June 2008, a grant will be paid for the production or import of biodiesel with the grant amount the same as the excise. Beginning on 1 July 2008, the grants will be reduced in five equal annual steps, ceasing on 1 July 2012 when the final excise rate will apply.

Final excise rates for currently untaxed fuels and ethanol will have regard to their energy content.

- On 1 January 2006, the sulphur standard for diesel is scheduled to be reduced to 50 parts per million (ppm) (low sulphur diesel). Under the *Measures for a Better Environment* program, the Government is committed to encouraging the early adoption of low sulphur diesel by taxing regular diesel (more than 50 ppm sulphur) more heavily than low sulphur diesel. The Government will increase excise on regular diesel by one cent per litre on 1 July 2003 and another cent on 1 January 2004. The Government will increase grants provided to agriculture claimants under the off-road component of the Energy Grants (Credits) Scheme (EGCS) to compensate.

In accordance with the Government's commitment under the *Measures for a Better Environment* package, the environmental component of the EGCS will comprise:

- payment of grants for producing or importing diesel with 10 ppm or less sulphur for two years from 1 January 2007, funded by an increase in excise and customs duty of 0.7 cents per litre on all diesel
- payment of grants for producing or importing premium unleaded petrol with less than 50 ppm sulphur content for two years from 1 January 2006, funded by an increase of 0.06 cents per litre in excise and customs duty on all petrol
- new fuel quality standards for biodiesel and compressed natural gas, and
- inclusion of liquefied natural gas and biodiesel as alternative fuels in the on-road component of the EGCS.

The proposals are consistent with some of the recommendations of the Fuel Taxation Inquiry chaired by Mr David Trebeck that reported in March 2002, namely, that excise (and customs duty) should apply to all liquid fuels (irrespective of their derivation) and liquefied and/or compressed natural and petroleum gases, and that the rates should be based on the relative energy content of each fuel. These proposals would eliminate the discrimination that now exists in the application of the tax burden among fuels especially in favour of excise-exempt fuels. In making these proposals, the Government has reversed an earlier decision to reject these recommendations.

Implementation of the Government's proposals would have important consequences. Industries directly and indirectly reliant on excise exemption would contract. On the other hand, their existence is due largely to this tax advantage. Further, the cost of the exemptions is considerable. The Fuel Taxation Inquiry estimated that the total value of excise exemptions for petroleum product substitutes over the period 1994–95 to 2004–05 was about \$8.7 billion (in 2000–01 prices). Basing excise on energy content would result in a realignment of *relative* excise rates.

The imposition of excise on fuels that were previously exempt would affect the environment. The Fuel Taxation Inquiry concluded that fuel taxation is generally not an appropriate instrument to address environmental externalities. The Government's proposals are consistent with this conclusion as evidenced by the proposal to remove excise exemptions.

To offset the effect of the increased excise on regular diesel on the agricultural sector, the grant paid under the EGCS for the off-road use of diesel in agriculture will be increased. The proposal is a non-transparent subsidy to agriculture. It would have the effect of encouraging agriculture to continue to use regular diesel, contrary to the intent of the proposals under the *Measures for a Better Environment*. The measure is also discriminatory because other industries—notably mining—are not similarly favoured.

The Government's proposals are consistent with some of the Fuel Taxation Inquiry's recommendations. This is perhaps most evident in the decision not to reintroduce



indexation of excise. The decision to levy excise on all fuels could be seen as a means of clawing back revenue foregone by the decision to end indexation.

## **Introduction**

The Government, in the 2003–04 Budget, proposed changes to the way some fuels are taxed. The proposals, if implemented, would have important consequences. This Current Issues Brief examines the background to the proposals and their possible consequences.

## **Proposals**

The main elements of the proposals are:

**Excise-exempt fuels.** From 1 July 2008, all fuels used in internal combustion engines will be subject to excise. Hence fuels that are now excise-exempt—notably liquefied petroleum gas (LPG), liquefied natural gas (LNG) and compressed natural gas (CNG)—will be subject to excise. The Government proposes to phase in the excises. From 1 July 2008, the government will pay subsidies that reduce the 'effective' rate of excise, that is, the excise less the subsidy. The subsidies will be phased out in five equal instalments. The final excise rates—which are to be determined later in 2003—will apply on 1 July 2012.

**Ethanol.** The proposals have two elements. The first is to extend the current arrangements—which are due to expire on 18 September 2003—until 30 June 2008. Currently, ethanol is subject to excise (and customs duty) at the same rate as excise on petrol and diesel (now 38.143 cents a litre). Domestically-produced ethanol also receives a subsidy of the same amount, reducing the effective excise rate to zero. The customs duty protects domestic production against imports. The cost of the ethanol production subsidy is estimated at \$27 million in 2003–04, \$45 million in 2004–05, \$61 million in 2005–06, and \$62 million in 2006–07. The Government has introduced legislation to effect this element of the proposals.<sup>3</sup>

The second element comes into effect from 1 July 2008, when grants that reduce the effective rate of excise below the final rate will be paid for both domestically-produced and imported ethanol. The grants will be reduced in five equal annual instalments from 1 July 2008 to 1 July 2012, when the final (as yet undetermined) excise will apply.

**Biodiesel.** This will be treated much the same as ethanol. From 18 September 2003, biodiesel will be subject to excise (and customs duty) at the same rate as diesel. The estimated revenue from this measure is \$5 million in 2003–04, and \$10 million in each of 2004–05, 2005–06 and 2006–07. From 18 September 2003 until 30 June 2008, grants will be paid for the production or import of biodiesel. During this period, the grant amount will be the same as the excise, reducing the effective excise rate to zero.<sup>4</sup> The estimated cost of the grants is \$15 million in 2003–04, \$44 million in 2004–05, \$76 million in 2005–06, and \$99 million in 2006–07. Beginning on 1 July 2008, the grants will be reduced in five equal

annual steps, ceasing on 1 July 2012 when the final (as yet unspecified) excise rate will come into effect.

The final excise rates on excise-exempt fuels, ethanol and biodiesel will be based on their energy content.

**Low sulphur diesel excise differential.** Since 1 January 2003, the standard for sulphur content in diesel has been 500 parts per million (ppm). On 1 January 2006, the standard will become 50 ppm under the *Fuel Quality Standards Act 2000* [diesel with less than 50 ppm sulphur is known as ultra low sulphur diesel (ULSD)].<sup>5</sup> Under the *Measures for a Better Environment* program released in 1999 (see the Appendix for relevant excerpts), the Government is committed to encouraging the early adoption of ULSD by differentiating the excise on ULSD and regular (high sulphur) diesel (diesel containing more than 50 ppm sulphur). The Government intended to increase the excise on regular diesel by one cent on 1 January 2003 and by another cent on 1 January 2004. In the event, the Government deferred the implementation of the first one cent increase from 1 January 2003 to 1 July 2003 because of the drought.<sup>6</sup> The excise increases will run until 31 December 2005. The differential is designed to help ULSD diesel compete with regular diesel because it costs more to produce ULSD.

To offset the effect on agriculture of the higher excise (and customs duty) on regular diesel, the Government proposes that the grant paid under the Energy Grants (Credits) Scheme (EGCS) for the off-road use of diesel in agriculture be increased. The additional grant amount will be based on a weighted average of the differences between the excise rates applying to low sulphur and high sulphur diesel, calculated on the basis of the market share of each fuel. The cost of these grants is estimated at \$10 million in 2003–04, \$13 million in 2004–05 and \$4 million in 2005–06.

**Low sulphur premium unleaded petrol.** From 1 January 2006, a subsidy will be paid for a period of two years for the production or import of premium unleaded petrol with less than 50 ppm sulphur. The Government estimates that the subsidy will be 1.1 cents a litre. An increase in the excise (and customs) duty on *all* petrol for two years will fund this measure. The Government estimates that the increase will be 0.06 cents per litre.

**Low sulphur diesel.** From 1 January 2007, a subsidy will be paid for a period of two years for the production or import of diesel with 10 ppm or less sulphur. The Government estimates that the subsidy will be one cent a litre. An increase in the excise (and customs) duty on *all* diesel for two years will fund this measure. The Government estimates that the increase in excise will be 0.7 cents a litre.

The estimated revenue from the additional excise on petrol and diesel is \$6 million in 2005–06 and \$65 million in 2006–07. The estimated cost of the subsidies is \$1 million in 2005–06 and \$41 million in 2006–07.

**Energy Grants (Credits) Scheme<sup>7</sup>: LNG and biodiesel.** The Government proposes to make LNG and biodiesel (but not blends of biodiesel and diesel) eligible as alternative fuels for on-road use in the EGCS. The EGCS will be extended to LNG from 1 July 2003 and the grant rate will be 8.130 cents a litre. Biodiesel will be approved for inclusion in the EGCS when the fuel standard for biodiesel under the *Fuel Quality Standards Act* has come into effect. The grant rate for biodiesel will be 18.510 cents a litre. The estimated cost is \$3 million in 2003–04, and \$5 million in each of 2004–5, 2005–06 and 2006–07.

## Fuel Taxation Inquiry

The proposals are consistent with some of the recommendations of the [Fuel Taxation Inquiry](#), which reported to the Government in March 2002.<sup>8</sup> The Inquiry's recommendations were based on the principles that fuel taxes:

- should not discriminate in the application of the tax burden between fuels, and
- should attempt to minimise the application of fuel taxation to intermediate inputs into production (business inputs).<sup>9</sup>

The Inquiry recommended, among other things, that:

- excise and customs duty should apply to all liquid fuels, irrespective of their derivation, and liquefied and/or compressed natural and petroleum gases
- the rates to apply should be based on the relative energy content for each fuel, except for aviation fuels and greases. In determining relative rates, the rate of excise applying to diesel at the time of implementation would not change
- twice-yearly Consumer Price Index indexation of all fuel excise and customs rates should be reintroduced, and
- the Commonwealth Government should agree to implement its proposal for the early introduction of ultra low sulphur diesel (ULSD) in the form of a supply subsidy to fuel producers and importers
  - From 1 January 2003, a supply subsidy of one cent per litre—and from 1 January 2004, a subsidy of two cents per litre—should be provided to offset the additional cost (capital and production cost) of ULSD
  - The subsidy should be funded by an increase in the excise on diesel determined by the Australian Taxation Office for both regular diesel and ULSD.<sup>10</sup>

The recommendation that all liquid fuels should be included in the fuel tax system—including ethanol, biodiesel, LPG, LNG and CNG—and that excise be levied on the basis of energy content is based on the non-discrimination principle.

The Government released the Inquiry's report on Budget night 2002 (14 May 2002) and announced that it had rejected the Inquiry's main recommendations. In particular, the Government rejected the recommendation that all liquid fuels be taxed on the basis of relative energy content:

The proposal to tax all fuels based on their relative energy content would impose tax on previously unexcised fuels such as ethanol and LPG. This would have implications for the LPG retail fuel industry and LPG conversion businesses, and is also contrary to the Government's election commitment to maintain excise exemptions for fuel ethanol and biodiesel. For these reasons the Government will not be implementing this recommendation.

The Government also rejected the proposal to reintroduce fuel excise indexation on the grounds of:

... community concerns about high petrol prices.<sup>11</sup>

However, the proposals announced in the 2003–04 Budget reverse some of the Government's initial response to the Fuel Taxation Inquiry. In particular, the proposals are consistent with the recommendations that excise-exempt fuels should be taxed and that excise rates should be based on relative energy content.

## **Consequences**

Implementation of the Government's proposals would have important consequences. They include the rationalisation of fuel taxes and the effects on industries dependent on excise exemptions, and the implications for relative excise rates and for the environment.

### **Rationalisation**

The proposals to remove the excise exemptions and to base excise on relative energy content would bring much-needed rationality to fuel taxation. In particular, these proposals would eliminate the discrimination that now exists in the application of the tax burden among fuels especially in favour of excise-exempt fuels. Taxation has served a wide range of sometimes conflicting objectives. The Fuel Taxation Inquiry noted that objectives have changed over time, that there has been a lack of clear explanation by governments when and why objectives changed, and that there is no clear statement from government regarding current objectives.<sup>12</sup>

Some objectives have not been attained. The Government originally introduced the zero-rating of excise on alternative fuels for fuel security and diversity reasons. But alternative fuels generally and fuel ethanol in particular have traditionally contributed little to reducing reliance on petroleum products. Ethanol use is equivalent to 0.19 per cent of petrol and diesel use, 0.33 per cent of petrol use, and 1.5 per cent of petrol use in greater Sydney, the main market. The Fuel Taxation Inquiry questioned the effectiveness of assistance in achieving fuel security:

Despite the use of taxation concessions to encourage the use of petroleum substitutes over the past 20 years, the energy inefficiency, inconvenience and lack of access to those fuels has restricted their use to a small proportion of transport fuel. This is not expected to change over the next 20 years, by which time a new generation of engine technology, replacing both petroleum products and their substitutes may have emerged.<sup>13</sup>

## Industry

Industries reliant on excise exemption would contract if the proposals were implemented. Exempting fuels from excise encourages their substitution for other fuels by lowering the relative prices of the exempt fuels. The excise exemption is, in effect, a subsidy from taxpayers for the use of exempt fuels. The cost of the excise exemptions is considerable. The Inquiry estimated that the total value of excise exemptions for petroleum product substitutes over the period 1994–95 to 2004–05 was about \$8.7 billion (in 2000–01 prices).<sup>14</sup> Treasury estimates that the cost of exempting alternative fuels from excise is \$670 million in 2002–03.<sup>15</sup>

Removal of the exemption would result in the contraction of industries directly and indirectly reliant on the subsidy. The Fuel Taxation Inquiry recognised that its recommendations would result in the contraction of some industries:

The inquiry acknowledges that its recommendations may have a significant impact on some sectors of the economy, particularly industries involved in the production, distribution and supply of petroleum product substitutes.

The extent of these impacts is difficult to assess. For some sectors, such as ethanol and biodiesel, where the industries are at an early stage of development, the imposition of excise will affect their future viability, even though it was based on an artificial tax advantage. However, the extent of investment in the industry is relatively small.

The Australian Liquefied Petroleum Gas Association claims that the proposals have already cast doubt on investment plans for LPG as an alternative fuel in cars.<sup>16</sup>

## Excise Rates

Basing excise on energy content would result in a realignment of *relative* excise rates; some rates would fall and others rise. Most obviously, fuels now excise-free would experience a rise in relative rates. Rates on fuels now subject to excise would change relatively. For example, the excise on fuel ethanol is now the same as the excise on diesel and petrol (now 38.143 cents a litre). But on an energy content basis, the excise on fuel ethanol is higher than on diesel. Fuel ethanol produces only 61 per cent of the energy of diesel when combusted. The excise on fuel ethanol would be around 23 cents per litre and 33.8 cents on petrol.<sup>17</sup>

Fuel users would be affected by the proposals. The realignment of relative excise rates would increase the cost of fuel to some users and reduce the cost for others. Motorists

would face higher costs resulting from the increase in duty used to fund the premium unleaded petrol grants, while non-agricultural users of regular diesel would face an increase in duty of two cents a litre.

## **Environment**

A reason often given for exempting alternative fuels from excise is their environmental benefits. The imposition of excise on fuels that were previously exempt would therefore affect environmental externalities (see the Glossary for a definition of this term).

The Fuel Taxation Inquiry concluded that the *level* of environmental benefits of petroleum product substitutes may be declining relative to petrol and diesel:

[Petroleum product substitutes] have some environmental benefits relative to petrol and diesel, but even these are lessening with improved technology.<sup>18</sup>

The implication is that the case for exempting some fuels from excise is weakening.

As to the *means* of dealing with environmental externalities, the Inquiry concluded:

... that the changing relationship between fuels, the nature of external fuel costs and the technology to measure them mean that **fuel taxation is not an appropriate instrument to address these costs.**

The exception would be an externality closely related to the use of a fuel and not distorted by other variables. Greenhouse gas emissions fall into this category ...<sup>19</sup>

Rather:

More efficient instruments than fuel taxes are available to internalise the costs of air pollutant emissions.<sup>20</sup>

The Government's proposals seem to be consistent with the Fuel Taxation Inquiry's conclusion that fuel taxes are generally not appropriate to address environmental externalities, as evidenced by the proposal to remove excise exemptions.

## **Discrimination**

As noted, to offset the effect of the increased excise on regular diesel on the agricultural sector, the grant paid under the EGCS for the off-road use of diesel in agriculture will be increased. The proposal is, in effect, a subsidy to agriculture. It will have the effect of encouraging agriculture to continue to use regular diesel. This seems to run contrary to the intent of the proposals under the *Measures for a Better Environment*. The measure is also discriminatory because other industries—notably mining—that use diesel off-road are not similarly favoured.

## Conclusions

The Government's proposals are consistent with two of the key recommendations of the Fuel Taxation Inquiry, namely, to include all liquid fuels in the excise regime and to base excise rates on relative energy content. A positive consequence of these proposals would be the elimination of the discrimination that now exists in favour of excise-exempt fuels. In making these proposals, the Government has partly reversed its earlier decision not to accept the main findings of the Fuel Taxation Inquiry.

The Government's proposals do not take up other Fuel Taxation Inquiry recommendations. This is perhaps most evident in its decision not to reintroduce indexation of excise. On 1 March 2001, the Government abolished the half-yearly indexation of fuel excise revenue. The revenue foregone was estimated to rise from \$425 million in 2002–03, to \$785 million in 2003–04 to \$1,135 million in 2004–05.<sup>21</sup> The decision to levy excise on all fuels could be seen as a means of clawing back revenue foregone by the decision to end indexation. Nor did the Government adopt some of the Inquiry's recommendations regarding the EGCS.

## Endnotes

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1. *Fuel Taxation Inquiry Report*, March 2002, p. 266.
2. Sources: Budget Strategy and Outlook 2003–04, Budget Paper No. 1, pp. 1–23 and 1–24; Budget measures 2003–04, Budget Paper No. 2, pp. 40–42 and 222–224; Hon. Peter Costello, Treasurer, 'Fuel Tax Reform for the Future', Press Release 31, 13 May 2003; Hon. Peter Costello and Hon. Dr David Kemp, Minister for the Environment and Heritage, 'Incentives to Promote Cleaner Fuels', Press Release 30, 13 May 2003; and Hon. Dr David Kemp, 'New Package to Support Uptake of Biofuels', Media Release KB11, 13 May 2003.
3. See the Excise Tariff Amendment Bill 2003 and the Customs Tariff Amendment Bill (No. 2) 2003 introduced into the House of Representatives on 29 May 2003.
4. Currently, biodiesel blended with diesel attracts excise at the same rate as diesel, that is, 38.143 cents a litre.
5. See Environment Australia, 'Table of National Petrol and Diesel Standards' at <http://www.ea.gov.au/atmosphere/transport/fuel/standardstable.html>
6. The revenue foregone because of the deferral is estimated at \$60 million in 2002–03.
7. For a description of this scheme, see the Bills Digest for the *Energy Grants (Credits) Scheme Bill 2003* at <http://www.aph.gov.au/library/pubs/bd/2002-03/03bd119.pdf>
8. *Fuel Taxation Inquiry Report*, op. cit.
9. *Fuel Taxation Inquiry Overview*, March 2002, p. 18.
10. *ibid.*, pp. 29–33.
11. Hon. Peter Costello, Treasurer, 'Report of the Fuel taxation Inquiry', Press Release no. 027, 14 May 2002 at <http://www.treasurer.gov.au/tsr/content/pressreleases/2002/027.asp>

12. *Fuel Taxation Inquiry Overview*, op. cit., p. 11.
13. *Fuel Taxation Inquiry Report*, op. cit., pp. 42–43.
14. *Fuel Taxation Inquiry Overview*, op. cit., p. 17.
15. Treasury, *Tax Expenditures Statement 2002*, January 2003, p. 51.
16. Australian Liquefied Petroleum Gas Association Ltd., 'Uncertainty Over Alternative Fuels', Media Release, 19 May 2003.
17. *Fuel Taxation Inquiry Report*, op. cit., p. 110.
18. *ibid.*, p. 8.
19. *Fuel Taxation Inquiry Overview*, op. cit., p. 15.
20. *Fuel Taxation Inquiry Report*, op. cit., p. 71.
21. Budget Paper No. 2, 2001–02, p. 40.



## Appendix: Excerpts from Measures for a Better Environment

### Incentive for Switch to Lower Sulphur Diesels

Differential excise treatment of low and high sulphur diesel will provide an incentive to switch demand and speed the introduction of new refinery capital investment over the period 2000 to 2005, and restrict diesel eligible for fuel credits to ultra low sulphur diesel 50ppm (0.005%) from 2006.

Sulphur levels in diesel are currently on average 1300 parts per million (ppm). Europe will move to a standard of 50ppm in 2005. The earliest date at which *any* significant domestic production of diesel at 50ppm will occur is 2000, at which time the BP refinery in Brisbane will commence production. It is unlikely to be able to produce more than one eighth of Australian demand. Design and construction of a desulphurisation plant takes of the order of 4 years from the date of decision. Accordingly, it is unlikely that other significant domestic capacity to produce 50ppm diesel could be available before 2003.

While the earliest feasible introduction of Ultra Low Sulphur Diesel (ULSD) is the aim, there will be advantage in the earlier introduction of an intermediate level product. Reduction of sulphur levels to 500ppm is necessary to enable the introduction of Euro 2 standards for light diesel vehicles. This can occur progressively, initially focussing on urban areas, and with sufficient capacity being available to supply the whole Australian market by the end of 2002.

Speeding the introduction and use of low sulphur diesels market will be encouraged by:

- Negotiation with the oil majors of the early voluntary introduction of diesel at 500ppm in urban areas in 2000, on a best endeavours basis.
- Diesel standard set at 500ppm by the end of 2002 for road transport fuel.
- An increase in the diesel excise for high sulphur fuel above 50ppm so that the relevant effective diesel excise payable increases by
  - 1 cent per litre from 1 January 2003
  - 2 cents per litre from 1 January 2004.
- Private users and urban transport will also have an incentive to use ULSD due to the excise difference.
- Introducing a mandatory fuel standard of 50ppm (through a NEPM, equivalent legislative device or by use of the definition in the diesel fuel credit scheme) in 2006.

This would facilitate the introduction of the following diesel vehicle emission standards:

- Euro 2 2002/3 all new diesel vehicles
- Euro 3 2002/3 new medium and heavy diesel vehicles
- Euro 4 2006/7 all new diesel vehicles.

The one year lag from European adoption of Euro 4 in 2005 reflects the practicality of introducing vehicle support and maintenance infrastructure.

This initiative will require a major financial commitment from the Australian refinery industry (particularly when linked with a move to higher octane rating and lower sulphur for petrol products).

### **Bring forward the introduction of new petrol vehicle and fuel standards**

Euro 2 vehicle emission standards for new vehicles will be introduced from 2003 and from 2004 for continuing models.

Euro 3 vehicle emission standards will be introduced from 2005 and from 2006 for continuing models.

The timetable for the introduction of Euro 2 needs to allow domestic vehicle manufacturers sufficient lead time to source new engine technology. The Government is satisfied that the timetable set out above can be achieved without disrupting the domestic industry.

Euro 3 will offer further gains, particularly in "in service" performance, because of its requirements for on-board diagnostics. It does, however, demand significantly lower sulphur levels from petrol. It also requires higher octane, which in turn will facilitate the introduction of direct injection engines. These engines are important to meeting fuel efficiency and greenhouse targets. The earliest possible date for introduction is likely to be 2005/6.

Euro 4 is not yet sufficiently defined for petrol engines to enable a date for adoption to be set.

### **Maintain the current price relativities between Diesel and CNG and other alternative transport fuels, by making those transport applications that are eligible for the diesel fuel credit also eligible for "clean fuel" credits**

Diesel is currently excised at 43c/l, and CNG and other alternative fuels (such as LPG, ethanol and other renewable fuels) are excise free. ANTS will reduce the effective diesel excise rate for operators of large vehicles.

ANTS will affect the economics of alternative fuel use by pushing out pay back periods for conversion or reducing price incentives. Restoring the existing price differential, in

conjunction with a conversion assistance programme for gaseous fuels, will encourage wider use of alternative fuels and improve air quality and greenhouse gas emissions.

Alternative transport fuels such as CNG, LPG and recycled waste oil; and renewable transport fuels such as ethanol, canola oil (and other fuels certified as renewable by the CEO of the Australian Greenhouse Office); will attract clean fuel credits. A credit of around 16 cents per litre will apply to retain price relativities between clean fuels and diesel. For example, the credit for CNG will be approximately 12.5 cents per litre. Vehicles using these fuels will be required to meet relevant emissions standards.

### **Energy Credit Scheme**

This scheme will be developed jointly by the Government and the Australian Democrats. It will replace the diesel fuel credit scheme on 1 July 2002 by a jointly sponsored bill. The existing Diesel Fuel Credit scheme will have a sunset clause expiring on 30 June 2002. The Energy Credit Scheme will provide price incentives and funding for conversion from the dirtiest fuels to the most appropriate and cleanest fuels.