Fuel Tax Inquiry

Overview

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FUEL TAXATION INQUIRY COMMITTEE

28 March 2002

The Hon Peter Costello, MP
Treasurer
Parliament House
CANBERRA ACT 2600

Dear Treasurer

We are pleased to present the Report of the Inquiry into Fuel Taxation, in accordance with the terms of reference announced by the Government on 8 July 2001.

Yours sincerely

David Trebeck (Chairman) | John Landels, AC | Kevin Hughes

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ABBREVIATIONS AND ACRONYMS

ABRD	Australian Bicentennial Road Development
AFCP	Alternative Fuels Conversion Programme
ANTS	A New Tax System
CNG	Compressed natural gas(a)
CO	Carbon monoxide
CO_2	Carbon dioxide
cpl	Cents per litre
CPI	Consumer Price Index
DAFGS	Diesel and Alternative Fuels Grants Scheme
DFRS	Diesel Fuel Rebate Scheme
DME	Dimethyl ether(a)
EGCS	Energy Grants (Credits) Scheme
FSGS	Fuel Sales Grants Scheme
GDP	Gross Domestic Product
Gj	Gigajoule
GGAP	Greenhouse Gas Abatement Programme
GPS	Global Positioning System
GST	Goods and Services Tax
GTL	Gas-to-liquids(a)
kPa	kiloPascals
LNG	Liquefied natural gas(a)
LPG	Liquefied petroleum gas(a)
MBE	Measures for a Better Environment
NO_2	Nitrogen dioxide
PM_{10}	Particular matter size less than or equal to 10 microns in diameter
PPFSS	Petroleum Products Freight Subsidy Scheme
PSOS	Product Stewardship (Oil) Scheme
RRPGP	Remote Renewable Power Generation Programme
SO_2	Sulphur dioxide
ULP	Unleaded petrol
ULSD	Ultra low sulphur diesel
USGS	United States Geological Survey
VOC	Volatile organic compounds

(a) More details provided in Appendix G.

MEMBERS OF THE INQUIRY

Mr David Trebeck, Inquiry Chairman

Mr Trebeck is Managing Director of ACIL Consulting Pty Ltd, an economic and policy consulting company. Mr Trebeck also holds a number of company directorships.

Mr John Landels, AC

Mr Landels was Chairman and Chief Executive of Caltex Australia Limited between 1977 and 1991 and has held a number of senior company positions both within and outside Australia.

Mr Kevin Hughes

Mr Hughes is Chief Executive Officer of the Service Station Association Ltd and has had an extensive career in various aspects of the petroleum products industry.

INTRODUCTION

Background to the Inquiry

On 1 March 2001, the Prime Minister announced an inquiry into the total structure of fuel taxation in Australia. This was one of a number of Government decisions related to fuel, including a 1.5 cents per litre cut in fuel excise, abolition of indexation of fuel excise rates and asking the Australian Competition and Consumer Commission (ACCC) to examine the feasibility of placing limitations on petrol and diesel retail price fluctuations.

Following consultations, the Treasurer and the Minister for Industry, Science and Resources announced on 8 July 2001, the terms of reference and Inquiry membership.

The Inquiry was asked to report by March 2002.

While there have been many previous reports — both Commonwealth and State — into petroleum products, most have focussed on the structure of the petroleum products industry, particularly around issues of competition, marketing and pricing, or the pricing of specific petroleum products.

Few of these reports have specifically addressed the principles and practice of the **taxation** of fuel in Australia.

This Inquiry therefore provided a timely opportunity to examine the underlying principles, objectives and application of fuel taxation arrangements in Australia. This is particularly appropriate in view of future policy developments affecting the production, supply and use of fuel, which will have long term implications for the structure and design of fuel taxation arrangements.

Terms of reference — scope

The Inquiry terms of reference are shown on the inside front cover of the report.

In accordance with the terms of reference, the Inquiry has confined its attention to issues of fuel taxation within the overall budget neutrality constraint imposed on it. The Inquiry has not made recommendations on general fuel pricing issues, except for those which have a direct relationship to fuel taxation.

The report does not address income tax issues affecting producers and distributors, excise on the production of crude oil, fuel used in commercial electricity generation, or alternative taxation imposts which might substitute for fuel taxation.

The Inquiry's approach: information, transparency, consultation

The Inquiry's first task on being appointed was to establish a process for undertaking the requirements of the terms of reference.

Central to these considerations were the considerable information needs of the Inquiry to fulfil its role. Information was sought not only from policy makers and administrators, but also from the wide range of individuals, business and community groups affected by the taxation of fuel through fuel purchases or having to comply with fuel taxation administration.

The Inquiry sought an open and transparent approach to encourage the sharing of information between the Inquiry and interested parties. It informed the public about the Inquiry processes and fuel taxation issues generally and consulted face-to-face with many of those who made submissions.

Information

The Inquiry released a number of background papers to inform the public about the Inquiry and provide information on the details of fuel tax arrangements both in Australia and overseas. These publications were:

- an Issues Paper released on 18 August 2001, which explained the Inquiry terms of reference, and requested submissions from the public
  - the Issues Paper was sent to a range of individuals, industry and community organisations, and Members of Parliament, including the Leader of the Opposition and Leader of the Australian Democrats; and
- three background papers covering
  - the history of Australia's fuel tax arrangements

- a summary of previous reports into fuel in Australia
- fuel tax arrangements in other countries.

A number of media releases were issued, drawing attention to the Inquiry's activities, the Issues Paper and the call for submissions. Advertisements were placed in metropolitan and regional newspapers and industry specific journals, calling for submissions from the public.

Submissions and consultations

Prior to the request for submissions, the Inquiry held informal meetings with a number of organisations to gain an early understanding of issues likely to be raised in submissions. These meetings occurred during August and September 2001.

In response to its request, the Inquiry received 341 submissions from individuals, businesses, community groups and governments and their agencies. All submissions (with the exception of those identified as commercial-in-confidence) were posted on the Inquiry website and are listed at Appendix A.

The submissions encompassed an extremely wide range of viewpoints and opinions. Virtually all sectors of the economy and community interests were represented. There is such a diversity of opinion on the issues covered by the terms of reference that, even if it wanted to, the Inquiry could not please everyone. What the Inquiry can say is that it has reached conclusions and made recommendations having heard and thought about all points of view submitted to it.

Following the closing date for submissions, formal consultation hearings were held with 75 organisations and individuals that made submissions to the Inquiry. Consultation hearings were held from the middle of October 2001 to February 2002 in Brisbane, Sydney, Melbourne, Canberra and Perth. A number of groups from, or representing interests located in, regional and rural Australia attended these consultations.

Other Inquiry activities

Members of the Secretariat travelled to Japan, North America, Europe and New Zealand to gain an understanding of overseas fuel tax regimes. Additional meetings were held within Australia with other individuals and organisations involved in fuel taxation issues.

Structure of the Report

The Overview outlines the two major themes that underlie the structure of the report and the development of the Inquiry's recommendations:

- identification of the **objectives** of fuel taxation and the need to specify clearly how these objectives apply to Australia's arrangements; and

- the implications of **future policy** and **technological developments** — both domestically and internationally — on fuel taxation.

Part 1 establishes the **context** which forms the basis of the detailed examination later. It provides an outlook for the policy developments which will impact on fuel production, supply and use both in Australia and internationally over the next two decades.

This part also establishes what the **objectives of fuel taxation** should be by analysing the wide range of objectives identified by the Australian community and their relationship to the current and future fuel taxation policy environment.

Part 2 fulfils the **reporting functions** of the terms of reference. It takes the objectives identified in Part 1 and recommends changes to current arrangements to achieve those objectives, including the design of the Energy Grants (Credits) Scheme. The impact of these changes is also assessed.

Part 3 examines **specific policy measures** that the Inquiry has been asked to report on, covering incentives to encourage early production of ultra low sulphur diesel and other programmes announced in the Commonwealth Government's May 1999 *Measures for a Better Environment* statement.

Acknowledgments

Members of the Inquiry wish to thank the large number of individuals, organisations and government agencies that contributed to the Inquiry, through submissions, consultations and direct contact with the Secretariat.

In particular, the Inquiry expresses its thanks to those who participated in consultations or who undertook additional research at the Inquiry's request. These efforts are very much appreciated.

The Inquiry is grateful for administrative support from many areas of the Department of the Treasury and particularly wishes to thank the Information Technology, Training and Publications Unit, Travel Services, the Accommodation Team and the Contract Management Team.

Finally, the Inquiry wishes to thank the members of the Secretariat, under the capable leadership of Nigel Bailey, for their diligent and insightful work over the nine months of the Inquiry's life. This included heightened uncertainties when some Secretariat members travelled overseas in October and November 2001. It has been a pleasure for the Inquiry to work with the Secretariat officers and we are grateful for the effort they have devoted to the Inquiry. The members of the Secretariat were:

Grant Battersby	David Crawford	Anthony Cussen
David Ellis	Graeme Fawns	Grazia Garrard
Kerrie Hepworth	Susan Johnston	Tony Moleta
Vicki Ratliff		

Overview: Why tax fuel? A transparent approach to fuel taxation in Australia

Introduction

A foundation of modern democratic societies is that the laws introduced by governments should be clearly defined and understood by the community which must abide by them. Taxation laws are no different.

Governments have an obligation to articulate not only a taxpayer's obligations under the law but also why taxation has been imposed.

Underlying the legal and administrative processes of the law itself should be an understanding of the policy objectives the law has been imposed to achieve.

Articulating and clarifying the objectives of fuel taxation in Australia is the basis of the Inquiry's report and recommendations.

A number of recent developments have made this focus imperative:

- a changing policy environment both domestically and internationally, concerning production, supply and use of fuel, particularly in relation to fuel quality standards and engine technologies;
- decisions by both Commonwealth and State Governments; and
- reflecting the above, a wide difference of opinion and significant confusion within the Australian community regarding particular fuel taxation objectives and how they might be best achieved.

Based on the submissions received and consultations held, the Inquiry stresses this last point. It is accentuated by the fact that, to most people, buying fuel is something of a 'grudge purchase'. It is not relished, in the way that expenditure on new clothes or a visit to a restaurant may be. For the most part, the tax component on fuel is resented. These views are reinforced when governments are not clear in explaining why fuel is taxed.

Only by first clarifying what fuel taxation arrangements are supposed to achieve could the Inquiry identify their adverse effects on resource allocation, pricing and marketing arrangements, and administration.

The global fuel taxation policy context

Fuel use and fuel taxation: early policy objectives

Modern economies rely on a number of energy sources for different activities. Stationary energy needs (such as heating, cooking and lighting) rely predominantly on gas and electricity. Mobile energy needs (transportation) rely primarily on liquid petroleum products (such as petrol and diesel) derived from crude oil.

The use of different types of energy for different purposes reflects cost and convenience. In the case of transport, the combination of the internal combustion engine and petroleum products has provided a low cost and convenient source of energy that has revolutionised patterns of living throughout the 20th century and into the 21st century.

This difference in energy use is reflected in its tax treatment. Stationary energy sources have been subject to considerable change over time, given the ready substitutes available. For example, where once coal, wood and oil were major sources of energy for heating, this is now largely provided by gas and electricity. Internationally and in Australia these fuel sources are generally subject to low or zero fuel taxes.

By contrast, many countries, including Australia, impose high tax rates on petroleum products. This reflects not only their widespread use as transport fuel, but the lack of readily accessible and cost effective substitutes.

Petroleum substitutes such as liquefied petroleum gas (LPG), compressed natural gas (CNG) and ethanol have become more widely available over the past 20 years. However, compared to petroleum products, these fuels typically involve higher capital costs, are less convenient in terms of availability and storage (LPG and CNG), and are relatively less energy efficient. They have had some environmental benefits relative to petrol and diesel, but even these are lessening with improved technology.

The **convenience**, **accessibility** and **efficiency** of petroleum products in transport applications has allowed governments to rely heavily on taxing them for revenue purposes, despite the existence of broad-based consumption taxes (such as the GST) in most countries. Ever increasing demands for government expenditure have resulted in alternative revenue sources being at a premium.

Fuel use and fuel taxation: pressures for change

While revenue has been the predominant policy focus of fuel taxation, other objectives were introduced in the second half of the 20th century.

Some of these new objectives seek to change behaviour by providing active encouragement for the production and use of petroleum product substitutes through low or zero tax rates. Indeed they may **conflict** with the traditional revenue objective which is predicated on minimal consumption changes.

Table 1 summarises these global policy developments, the associated fuel taxation objective and the fuel taxation instrument used to target the objective.

Table 1: Global policy developments in fuel taxation

Time	Policy development	Fuel tax objective	Fuel tax instrument
Since early 1900s	Costs imposed on road infrastructure from transport fuel users	Funding road infrastructure costs	Taxation of petroleum products used in transport
1900s	Economic development	General revenue raising	Taxation of petroleum products used in transport
1970s	Response to crude oil price shocks of mid to late 1970s	Energy security or fuel diversity, via encouragement of substitute products	Low or zero fuel tax rates on petroleum substitute products
1980s	Increased awareness of the effects of fuel use on the environment and human health	Reducing the costs of some fuel use	Low or zero fuel tax rates on petroleum substitute products
Early 2000s	Effects of change in regional and rural communities, especially primary production	Regional development and industry assistance	Low or zero fuel tax rates on petroleum substitute products produced from agricultural products

Despite active encouragement for the production and use of petroleum product substitutes since the mid-1970s, **petroleum products continue to provide the dominant source of energy for mobile energy needs and will continue to do so for the foreseeable future**.

The relatively minor inroads that petroleum substitute products have made into fuel use was of specific interest to the Inquiry. In particular, the Inquiry was required to consider whether the costs of fuel taxation concessions continue to be justified, in relation to:

- resources being allocated to the production of petroleum substitutes; and
- administrative arrangements which tax substitute fuels at varying rates.

Fuel taxation in Australia

These global fuel taxation developments are also reflected in Australia.

- The highest rates of fuel taxation in Australia are on petroleum products used in transport, principally for the purpose of revenue raising.
- Australia does not tax some petroleum product substitutes (such as ethanol), while others such as natural gas and other biofuels are not within the excise regime.

In its consultations with the Australian community, the Inquiry was confronted with a wide interpretation of fuel taxation objectives.

In relation to revenue raising:

- only a small number of submissions saw a continuing role for fuel taxation as a **general** revenue source; more thought this objective redundant now that Australia has a broad-based indirect tax (the GST); and
- some submissions, especially from individuals, considered the **only** objective of fuel taxation should be as a **specific** revenue source to fund road infrastructure, even though this has not been a significant objective for over 40 years.

In relation to concessional taxation of petroleum substitute products, there was general agreement in submissions that the objective was to encourage greater use of these products.

In the Inquiry’s view, the use of petroleum substitutes in themselves should not be an objective, without an underlying rationale. There was again a diversity of opinion as to what this underlying rationale might be. Opinions ranged from seeking:

- reduced reliance on imported petroleum products;

- an environmental objective of **improving air quality** through the use of petroleum substitutes which are less polluting or 'cleaner';
- an environmental objective of **reducing greenhouse gas emissions**;
- supporting **development in regional and rural areas** through the production of petroleum substitutes using agricultural products (such as ethanol made from wheat or sugar); and
- **supporting industries**, such as manufacturers of equipment required to use petroleum product substitutes (such as LPG conversion kits).

A similar range of community opinions was apparent regarding the objectives of the various fuel rebate and grant arrangements in Australia.

- The **Diesel Fuel Rebate Scheme**, which provides a rebate of fuel excise for some business sectors, was seen by its recipients as simply the return of tax which should not have been paid in the first place; others perceived it as an industry assistance programme (mainly for primary production and mining), which is not justified.
- The **Diesel and Alternative Fuels Grants Scheme**, which provides fuel grants for certain heavy vehicles, was seen variously as a mechanism for charging heavy vehicles for the damage they impose on the road network and an environmental programme to improve air quality in urban areas.
- The **Fuel Sales Grants Scheme** was introduced to ensure the differential between city and country petrol prices 'need not increase' with the GST
  - yet in the eyes of some the objective of the scheme was to reduce or eliminate this differential, when it has never been the stated intention — either implicitly or explicitly — to do so.

In the Inquiry's opinion, the widely differing views on fuel taxation that exist in the community can be attributed to:

- changing objectives over time;
- a lack of clear explanation by governments when and why objectives changed; and
- reflecting these two points, no clear statement from governments regarding **current** objectives of fuel taxation.

If the Inquiry's judgement is correct, action to clarify the situation is needed. Taxation laws based on unclear objectives impose costs on the community, specifically those costs on which the Inquiry was asked to report.

- The taxation instrument will be less effective than it could be.
- High compliance costs will also be a consequence.

Establishing the objectives

From the wealth of information gathered via the Inquiry's consultations and independent research, the Inquiry distilled three groups of objectives attributed to current fuel taxation arrangements:

- addressing **costs associated with fuel use** (such as environmental costs, and costs imposed from damage to the road network by fuel users);
- **revenue raising** to fund **general** government services; and
- **broader industry and social objectives**, such as regional development, industry assistance and energy security / fuel diversity.

Cost of fuel use

The use of fuel generates a range of costs which are not usually incorporated in the fuel price. It is possible to devise taxation arrangements which can internalise these external costs.

If they are ignored, an inefficient allocation of resources within the economy can result. For example, there may be an imbalance between rail and road transport, or private and public transport, or distortions may be introduced in terms of commitments to restrict greenhouse gas emissions.

Some of the external costs are:

- road maintenance costs;
- effects on urban air quality from emissions of particulate matter and other pollutants;
- congestion of roads;
- noise effects from vehicle use;

- costs of road vehicle accidents; and
- effects on global warming from emission of greenhouse gases.

As well as being the basis for a fuel taxation structure, the external cost logic was often put to the Inquiry as one of the justifications for the current differential taxation treatment of fuel.

However, the nature of these costs and their relationship to fuel use can vary considerably:

- the costs of noise and accidents are only indirectly related to fuel use, whereas they are significantly influenced by other factors
  - motor vehicle accidents tend to be attributable to road conditions, vehicle maintenance and driver competence, rather than the consumption of fuel *per se*
  - noise effects vary by location and type of application (a new vehicle as opposed to a poorly maintained old vehicle) than use of fuel as such;
- the costs of road damage depend on the type of vehicle used (road damage increases exponentially with vehicle mass and axle configuration) and the type of road, as well as the amount of fuel used;
- the cost of pollutants impairing air quality depends on the location of the fuel use
  - importantly, it also depends on the type of application in which a fuel is used — new vehicle technologies and improvements in fuel quality standards are changing accepted notions of what is a ‘clean fuel’; and
- traffic congestion depends on location, the time of day or day of the week.

So, even if the cost of the externality can be accurately determined (a significant issue itself in practice) imposing a fuel tax on all users may not be the best way to internalise it.

It is often poorly targeted, inefficient and in some circumstances may even be counter-productive.

Taking account of the future — fuel and engine standards

Since the use of fuel taxation to encourage petroleum substitutes in the early 1970s, governments world-wide have imposed regulatory measures to address some of the costs of fuel use.

These non-tax measures have changed previously accepted relationships between fuel use and the costs of fuel use. In relation to air quality for example:

- government imposed standards have improved the quality of fuels
  - in Australia the lead content of fuels has been eliminated (through mandatory standards) and the sulphur content is being reduced now (with the mandating of ultra low sulphur diesel from 2006)
  - these regulatory changes have considerably narrowed the relative air quality performance of petroleum and petroleum substitutes; and
- improvements in motor vehicle engine technology are similarly improving emissions performance.

In relation to air quality, it is now generally accepted that the most important determining factor is not the type of fuel used, but the combination of fuel and engine type, including the quality of regular engine maintenance.

However, government imposed regulations also come at a cost (often unrecognised, such as increased motor vehicle prices associated with enhanced engine technology or increased costs of producing cleaner fuels) which amount to at least partial internalising of the external cost involved.

Taking account of the future — measurement technology

The difficulties which fuel taxation has in capturing variables such as time, location and type of vehicle can now be addressed through technology which tracks the location of vehicles electronically. Electronic recording devices in some urban tollways, the use of global positioning (satellite) systems (GPS), or measuring the mass and axle configuration of trucks, are examples.

This technology creates the opportunity to measure the actual costs of fuel use as it occurs:

- congestion (by time of day and precise location);
- air quality (by location); and
- damage to roads (by location, including type of road and weight of vehicle).

Similar technology is already in use in Australia. For example, CityLink in Melbourne uses electronic tolling to charge vehicles for the use of a private road network. Electronic tolling mechanisms are also used in Sydney. A number of large bus and truck operators use GPS generated data for normal fleet maintenance purposes.

Conclusions on the cost of fuel use

The Inquiry has 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. However, the Inquiry considers that the use of the fuel taxation system to address greenhouse objectives should not be canvassed until negotiations on international agreements are finalised and only then as part of a broader Australian response covering all sources of greenhouse gas emissions. These wider issues are beyond the Inquiry's terms of reference.

An important consideration for the Inquiry has been to ensure that fuel tax arrangements do not impede or distort future development of innovative technological solutions which can address fuel policy objectives.

The Inquiry has been concerned to ensure that where a range of policy instruments (both within and outside the taxation system) exist to address objectives associated with fuel use, each instrument is assessed on its merits.

Revenue raising

If targeting the external costs of fuel use is not considered to be appropriately achieved through fuel taxation, consideration must then be given to whether there is any residual role for fuel taxation as a general source of revenue.

Not surprisingly, only a small number of submissions to the Inquiry explicitly supported the proposition that revenue raising remained appropriate.

A number of other submissions argued that, following the introduction of a GST, there was no future role for a specific fuel tax in Australia.

The logic is that a GST is predicated on raising revenue efficiently and uniformly from goods and services across the board. On this basis, it is suggested there is no ongoing role for fuel taxation.

While general principles of taxation policy provide support for this proposition — indeed the Inquiry itself has sympathy with these views — the abolition of fuel taxation and its replacement with other revenue sources is outside the Inquiry terms of reference. In addition, the political compromises necessary to secure passage of the GST legislation involved departures from the principle of universality as far as the GST is concerned.

The Inquiry's terms of reference specifically asked it to examine the structure of **fuel taxation**.

The Inquiry concludes that, in the absence of a major new review of general tax reform, efficient revenue raising remains the predominant objective of fuel taxation.

In this context the Inquiry examined **adverse effects** of fuel taxation as a source of revenue.

The Inquiry was presented with extensive evidence from the community of such adverse effects, largely deriving from unclear fuel taxation objectives and differential rates of fuel taxation on closely substitutable fuels or closely related end uses:

- consumption and investment distortions arising from:
  - incentives to use or not use particular types of fuel on the basis of indiscriminate tax effects
  - the imposition of fuel taxation on production inputs for business; and
- administration and compliance costs created by:
  - differential tax rates encouraging tax minimisation practices by substituting lower taxed fuels for higher taxed alternatives
  - the blending of fuels with different tax rates
  - even a lack of clear definitions as to what constitutes a taxable fuel.

Other fuel taxation objectives

Energy security, industry assistance and regional development

Other objectives identified for fuel taxation, fell into the following categories:

- energy security or diversity of fuel supplies;

- development of Australian industries, both in direct fuel production and the manufacture of associated technology (such as engine modifications for use of petroleum substitutes); and
- associated with the previous point, regional development and employment through industry assistance.

A number of submissions to the Inquiry, from both government agencies and the private sector, pointed to the important role of excise exemptions for petroleum product substitutes to addressing these objectives.

However, the Inquiry concludes that significant adverse effects arise from the tax system attempting to achieve these objectives. The Inquiry was doubtful about the cost-effectiveness of using untargeted fuel taxation concessions to this end.

For example, the total value of excise exemptions for petroleum product substitutes over the period 1994-95 to 2004-05 is estimated at approximately $8.7 billion (in 2000-01 prices) and is estimated to cost $1.2 billion per year by 2004-05.[1]

Other factors add to the Inquiry's doubts:

- despite taxation concessions for petroleum product substitutes since the 1970s, their contribution to transport fuel use world-wide remains low and is expected to decline slightly over the next 20 years
  - while part of the justification is to encourage production of domestic fuel sources and reduce reliance on imported fuel, taxation concessions are equally available to imports;
  - the argument is also made that encouragement of petroleum substitutes is necessary because of the non-renewable nature of petroleum products — yet some petroleum substitutes such as LPG, CNG and other gas derived fuels are also non-renewable; and
- no analysis has been undertaken to establish the benefits to rural and regional areas of the tax concessions and whether they could be achieved at lower cost by other means.

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1 Fuel Taxation Inquiry estimates based on The Treasury, *2001 Tax Expenditures Statement*, Commonwealth of Australia, Canberra, 2001; prior year Tax Expenditures Statements and ABS Cat. No. 5206-41. Excise exemptions for petroleum product substitutes were first classified as tax expenditures by the Commonwealth Government in 1994-95.

The Inquiry's firm view is that if the objectives outlined above are considered important priorities for government, they should be funded through direct budget allocations, and not through non-transparent fuel taxation concessions.

Pricing issues

A number of submissions to the Inquiry suggested that fuel taxation arrangements should be invoked simply to reduce the cost of fuel. While there is obviously a link between fuel taxation and fuel prices, the Inquiry concludes that fuel taxation is an ineffective instrument to manipulate overall prices.

Attempts by government to reduce fuel prices by discretionary reductions in fuel taxes may have some short term effect, but will be overtaken by normal pricing movements over time.

A consistent approach to fuel taxation

The Inquiry's task, after analysing objectives and consistent with the terms of reference, has been to identify options for addressing the adverse effects of fuel taxation as a source of revenue.

These adverse effects derive from the differential taxation of fuel that has evolved over time. As a revenue raising instrument, fuel taxation:

- 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).

The Inquiry's recommendations focus on these principles.

A comprehensive and neutral fuel tax base

To remove the current distortions in the consumption and production of fuel types, the Inquiry recommends that the fuel tax base be extended and the taxation of fuels be placed on a neutral basis:

- all liquid fuels should be included in the fuel tax system, including ethanol, biodiesel, LPG, liquefied natural gas (LNG) and CNG; and

- fuel tax rates should be based on relative energy content of fuels, with the rate of diesel excise remaining unchanged at the time of implementation.

Taxation of fuels by energy content, which maintains the current rate of excise on diesel, will allow for a reduction in the excise on petrol of around four cents per litre.

The Inquiry also recommends the reintroduction of twice yearly fuel excise indexation to preserve the real value of fuel taxation revenue. If fuel taxation is to continue as a source of revenue for government, it should be not be eroded by inflation over time.

Some petroleum products (such as bitumen and waxes) which are not readily useable as fuels should not be subject to excise. Current cost recovery arrangements for lubricants and greases under the Product Stewardship (Oil) Scheme and for aviation fuel should remain unchanged.

A **Residential Fuel Credit Scheme** should also be introduced to offset the excise component of diesel, heating oil and LPG used for domestic heating, cooking and electricity generation (see below).

The Inquiry's approach will have the following advantages relative to current arrangements:

- reduced distortions in resource allocation: by taxing fuels according to their relative energy content, all fuels will have the same tax burden — fuels with a higher energy content will be taxed at a higher rate; and

- greater certainty by having a clearly understood framework for the taxation of both current and prospective fuels.

The Inquiry recommends that taxation of fuels be imposed at an early point in the production and distribution chain, with justified offsets being delivered through fuel credit arrangements (described under the Energy Grants (Credits) Scheme below).

Energy Grants (Credits) Scheme — Business Fuel Credit Scheme

The comprehensive taxation of all liquid fuels allows for a reduction in the burden of fuel taxation on intermediate inputs to production.

The Government's commitment to introduce an Energy Grants (Credits) Scheme, incorporating the current Diesel Fuel Rebate Scheme and the Diesel and Alternative Fuels Grants Scheme provides an appropriate mechanism for this to happen.

The Inquiry recommends that a component of the Energy Grants (Credits) Scheme should be implemented as a **Business Fuel Credit Scheme**, with the sole objective of **lowering the effective level of fuel taxes for business**.

- Fuel credits for fuel used off-road should be extended to all businesses and to all taxed fuels, except petrol or petrol blends.
- Fuel credits for fuel used on-road should be extended to all businesses using any taxed fuel on-road in vehicles over 4.5 tonnes, except for petrol or petrol blends.
  - The on-road business fuel credits should be determined by the relative energy content of the fuel and will be indexed on the same basis as fuel excise.

The Business Fuel Credit Scheme will for the first time provide neutral taxation and credit treatment for excisable fuels, to the greatest extent possible. With the exception of petrol or petrol blends, all excisable fuels will be entitled to a credit on the same basis.

As well as reducing fuel costs for business, the Business Fuel Credit Scheme will have the following benefits:

- eliminating the current end-use provision for some fuels (such as solvents)
  - the Australian Taxation Office will consult with businesses to assess compliance and cash flow implications; and
- reducing complexities surrounding eligibility for the Diesel Fuel Rebate Scheme and the Diesel and Alternative Fuels Grants Scheme.

Energy Grants (Credits) Scheme — environment component

The stated intent of the Energy Grants (Credits) Scheme, to provide encouragement to clean fuels, serves the environmental objective of improving urban air quality.

Development of the Energy Grants (Credits) Scheme presents an opportunity to assess, against first principles, the most effective measures to address the air quality objective. The Inquiry therefore recommends undertaking studies to assess:

- whether national ambient air quality standards will be achieved using current air quality management policies; and

- what additional air quality management measures will be required and can be cost effectively implemented to ensure national ambient air quality standards are attained and complied with into the future.

These studies offer the benefit of determining the most effective means of addressing the air quality objective. They should carefully consider incentives for vehicles and fuels with superior emissions performance.

The Inquiry's recommendations on fuel excise will increase the tax burden on fuels previously excise exempt. The Energy Grants (Credits) Scheme provides a mechanism for recognition of the environmental benefits of these fuels where they can be demonstrated and cost effectively obtained.

Outcomes of the studies should form the environment component of the Energy Grants (Credits) Scheme to commence on 1 July 2004.

Implementation

The Inquiry's recommendations to introduce new fuel credits will have impacts on businesses, consumers and the government. The Inquiry is concerned that sufficient time is allowed for consultation with affected parties and communication of specific implementation logistics.

For this reason, the Inquiry recommends that the energy content regime and the Energy Grants (Credits) Scheme should commence on 1 July 2004.

While introducing fuel excise indexation on the same date would have been preferred by the Inquiry, the budget neutrality constraint in its terms of reference does not allow this to occur, which is why indexation is recommended to resume on 1 August 2003.

Assessing the impacts

The economy

Economic modelling undertaken for the Inquiry suggests the overall impact of the recommendations on the economy will be minor, with some small positive changes in exports and some areas of investment.

Fuel suppliers and downstream 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.

In the case of LPG, the level of investment already committed is significant (around $3 billion) and the industry is well established. The impact on the future supply and use of LPG of the imposition of excise is unclear. The automotive market is the most important segment of LPG supply and there is evidence (from Queensland) that consumption of LPG can be sustained even with a lower differential between the prices of petrol and LPG.

Under the Inquiry's framework, where all fuels are treated neutrally, including for environmental performance, it is likely that at least some petroleum product substitutes may not be competitive. If this were to occur, the Government must decide whether the production and supply of petroleum product substitutes warrants direct subsidisation for other reasons and if so, at what level.

In that event, the Inquiry urges that a comprehensive assessment be undertaken against a consistent set of policy principles that apply to all fuels, otherwise new distortions of the type the Inquiry is trying to terminate may arise. This includes taking into account new technological developments and fuel types.

Regional, rural and remote communities

Residential Fuel Credit Scheme

The Inquiry recommends that a Residential Fuel Credit Scheme should be introduced for the excise component of diesel, LPG and heating oil used for domestic cooking, heating and electricity generation.

This will maintain taxation parity with reticulated gas and mains electricity, which are not, and have never been, subject to excise.

The Residential Fuel Credit Scheme will be of benefit to those in rural and remote communities which do not have access to reticulated gas or mains electricity and must rely on other sources of fuel.

Fuel Sales Grants Scheme and Petroleum Products Freight Subsidy Scheme

The Commonwealth Government currently provides $230 million per year for the Fuel Sales Grants Scheme and $3.5 million per year for the Petroleum Products Freight Subsidy Scheme. The intent of both these schemes is to reduce the cost of fuel in regional, rural and remote communities.

The Inquiry was provided with evidence that there is little recognition of either scheme and uncertainty as to whether the benefits they are supposed to provide fully accrue to consumers.

The Inquiry recommends that both schemes should be terminated from 1 July 2004 when the new taxing and fuel credit arrangements commence.

Regional, rural and remote communities will benefit from the reduction in transport costs from the extension of fuel credit arrangements and the four cents per litre cut in petrol excise.

Administration

The Inquiry was presented with considerable evidence of administration and compliance costs of current fuel excise arrangements. Many of these concerns reflected the unclear policy principles underlying fuel tax laws, particularly the concessional taxation treatment of some fuels and the eligibility for rebate, subsidy and grant schemes.

These concerns are addressed in recommendations relating to the fuel tax regime and the Energy Grants (Credits) Scheme.

However, other issues of administrative practice were raised with the Inquiry, particularly in relation to the current joint administrative arrangements between the Australian Taxation Office and Australian Customs Service.

The Inquiry considers that the administration of all taxation issues relating to the importation of fuel products should be transferred to the Australian Taxation Office, after consultation with the Australian Customs Service to ensure that border integrity functions are not compromised.

Specific issues on which the Inquiry has been asked to report

Early introduction of ultra low sulphur diesel

In 1999 the Government announced that it would introduce an excise differential to encourage the early introduction of ultra low sulphur diesel (ULSD).

The measure would result in regular diesel being excised at a rate of one cent per litre above that for ULSD between 1 January 2003 and 1 January 2004 and two cents per litre from 1 January 2004 to 31 December 2005. As from 1 January 2006, ULSD will become the mandated standard.

Similar incentives have been successful in other countries. The specifics of how the differential should be implemented was referred to the Inquiry.

Instead of the specific measure announced by the Government, the Inquiry recommends a subsidy be paid to ULSD producers and importers at the one and two cents per litre rates of ULSD. The subsidy should be funded by an offsetting increase in the excise rate applying to both standards of diesel fuel sold during the period 2003 to 2006.

Other programmes in *Measures for a Better Environment*

The Inquiry was asked to examine programmes announced under the *Measures for a Better Environment* Statement in May 1999. The Inquiry concludes that while these programmes are consistent with its general approach, there may be a case for reviewing the objectives of these programmes against the Inquiry's recommendations and to ensure cost effectiveness of the expenditure against the relevant objective.

Budget impact

Table 2 shows the estimated impact of the recommendations on the budget over the period covered by the budget forward estimates. The recommendations are slightly revenue positive. However, the following should be borne in mind when interpreting the table:

- no allowance is made for the air quality initiatives under the Energy Grants (Credits) Scheme; and

- the actual budget impact is likely to be less than outlined in the table, as it makes no allowance for a reduction in overall fuel consumption from the taxation of petroleum product substitutes, nor for an increase in Business Fuel Credit Scheme claims resulting from simpler administration and compliance procedures.

Finally, Table 3 provides an overview of the implementation timing of the Inquiry's recommendations.

Table 2: Budget impact of Inquiry recommendations[a]

	2002-03 $m	2003-04 $m	2004-05 $m	2005-06 $m
REVENUE MEASURES				
Additional revenue				
Twice yearly indexation from 1 August 2003	0	215	560	910
Excise rates based on energy content from 1 July 2004	0	0	490	520
Reduction in revenue				
Reduction in revenue from removal of ULSD excise differential	-30	-65	-70	-35
Revenue from ULSD excise supplement(b)	20	65	130	90
Total change in revenue	**-10**	**215**	**1 115**	**1 490**
EXPENSE MEASURES				
Additional expenses				
Off-road fuel credits from 1 July 2004	0	-30(c)	-435	-585
Full credit for off-road business use of other fuels (excluding LPG)	0	0	-135	-165
Full credit for off-road business and residential use of LPG	0	0	-350	-435
Residential fuel credit — diesel and heating oil	0	0	-15	-15
Removal of DAFGS boundaries	0	-10(c)	-195	-240
Ultra low sulphur diesel subsidy(b)	-20	-65	-130	-90
Studies (road pricing and externalities)(d)	-1	-1	0	0
Improving air quality	-1	0	(e)	(e)
Reduction in expenses				
Abolish Fuel Sales Grants Scheme	0	0	230	230
Abolish Petroleum Product Freight Subsidy Scheme	0	0	5	5
Total change in expenses	**-20**	**-105**	**-1 030**	**-1 300**
NET IMPACT ON BUDGET	**-30**	**110**	**90**	**190**

(a) Totals may not add due to rounding.
(b) These two components represent additional revenue and expenditure in relation to the ULSD subsidy, which will be overall budget neutral — the excise supplement collected will be offset by payments to ULSD producers and importers.
(c) The increase in expenditure in 2003-04 is due to the effect of the re-introduction of indexation on DFRS and DAFGS claims.
(d) Externality study undertaken in 2002-03 and road pricing study in 2003-04.
(e) Funding to be determined in 2003-04 Budget context.

Table 3: Proposed implementation timeframes

Excise/Credit	2002-03	2003-04	2004-05
FUEL EXCISE			
Diesel	38cpl plus ULSD supplement	Indexed plus ULSD supplement	Indexed plus ULSD supplement
Petrol	38cpl	Indexed from 1 August 2003	Taxed on energy content Indexed
Kerosene	7.5cpl		
Heating Oil	7.5cpl		
Fuel Oil	7.5cpl		
All other fuels currently within the excise system	Retain current rates		
Solvents	Unchanged	Unchanged	
Methanol			
LPG			
Ethanol			
Biodiesel			
CNG			
LNG			
Any other liquid fuel			
Aviation fuel	2.8cpl	Indexed	Indexed
INDEXATION	Commences 1 August 2003	1 August 2003 1 February 2004	1 August 2004 1 February 2005

Table 3: Proposed implementation timeframes (continued)

Excise/Credit	2002-03	2003-04	2004-05
FUEL CREDITS			
Diesel Fuel Rebate Scheme	Full rebate for certain uses within certain industries	No change	Abolish
Diesel and Alternative Fuels Grants Scheme	Grant for certain on-road transport operators	No change	Abolish
Fuel Sales Grants Scheme	1cpl and 2cpl grant to regional and remote Australia	No change	Abolish
Petroleum Product Freight Subsidy Scheme	Subsidy to remote fuel transporters	No change	Abolish
Product Stewardship (Oil) Scheme	5cpl levy on lubricants and greases / benefit for oil recyclers	No change	No change
ENERGY GRANTS (CREDITS) SCHEME			Commences 1 July 2004
Business Fuel Credit Scheme			Full credit for off-road fuel use. Partial credit for on-road fuel use.
Residential Fuel Credit Scheme			Full credit for certain residential fuel use.
Improving air quality			Commences 1 July 2004
ULTRA LOW SULPHUR DIESEL SUBSIDY	Subsidy commences 1 January 2003 (1cpl)	2cpl subsidy from 1 January 2004	2cpl subsidy

SUMMARY OF RECOMMENDATIONS

Recommendation 1: Fuel taxation design principles

The Australian Taxation Office, in consultation with relevant parties, should design new arrangements for the application of Commonwealth fuel excise and customs duty to apply from 1 July 2004 incorporating the following features.

- 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 of each fuel, except for aviation fuels and lubricants and greases. In determining relative rates, the rate of excise applying to diesel at the time of implementation will not change.
- Aviation fuels and lubricants and greases should retain their current excise and customs duty status — that is, in relation to cost recovery for airline service provision and the Product Stewardship (Oil) Scheme respectively.
- The full rate of excise and customs duty applying to fuels under the new arrangements should be imposed and collected at an early point in the production and distribution chain, with offsets to the excise burden being delivered through the Business Fuel Credit Scheme as part of the Energy Grants (Credits) Scheme and the Residential Fuel Credit Scheme.

Twice yearly Consumer Price Index indexation of all fuel excise and customs duty rates should be reintroduced from 1 August 2003.

Recommendation 2: Energy Grants (Credits) Scheme design principles

That the Government's Energy Grants (Credits) Scheme commitment should be implemented through:

- the introduction of a Business Fuel Credit Scheme with the sole purpose of lowering the effective level of fuel excise for business; and
- Commonwealth support for programmes aimed specifically at improving urban air quality.

Recommendation 3: Business Fuel Credit Scheme

That the Business Fuel Credit Scheme should:

- commence on 1 July 2004;
- cover both on-road and off-road fuel use and therefore replace the Diesel Fuel Rebate Scheme, the Diesel and Alternative Fuels Grants Scheme as well as the current concession and remission systems within the excise system; and
- be administered by the Australian Taxation Office.

Recommendation 4: Off-road fuel credits to be extended to all businesses

That off-road fuel credits should be paid to all businesses using any excised fuels, except petrol or petrol blends.

- The magnitude of these fuel credits to be equal to a full rebate of the fuel excise levied on these fuels.

Recommendation 5: On-road fuel credits to be extended to all heavy vehicles

That on-road fuel credits should be paid to all businesses using any excised fuel on-road in vehicles over 4.5 tonnes.

- Fuel credits should be paid to businesses using any excised fuel, except petrol or petrol blends.

Recommendation 6: On-road fuel credits based on the current diesel grant rate

That the on-road credit for diesel should be based on the current rate under the Diesel and Alternative Fuels Grants Scheme. On-road credits for other eligible excised fuels should be based solely on the current level of diesel credit adjusted for differences in energy content:

- with no adjustment for environmental impacts; and
- all credit rates indexed on the same basis as fuel excise.

Recommendation 7: Cost effective administration procedures

That the administration of the Business Fuel Credit Scheme should seek to minimise compliance costs for businesses and the Australian Taxation Office by:

- minimising differences in claiming on-road and off-road credits; and
- utilising cost effective processing techniques.

Recommendation 8: Air quality assessment

That Environment Australia should undertake a study to determine whether national ambient air quality standards will be achieved in all States and Territories by 2008 using current air quality management policies.

Recommendation 9: Energy Grants (Credits) Scheme — environment component

That the environmental component of the Energy Grants (Credits) Scheme should be developed as follows:

- Environment Australia, in consultation with relevant Commonwealth and State and Territory agencies, conduct studies to determine what additional air quality management measures, if any, will be required and can be cost effectively implemented to ensure attainment of, and ongoing compliance, with national ambient air quality standards
  - the studies should include consideration of those measures suggested to the Inquiry, such as grants which differ by fuel and vehicle type;
- Environment Australia report to Government in early 2003 to provide a funding outline of likely necessary and effective air quality measures. The Government make provision in the 2003-04 Budget for the commencement of an environmental component of the Energy Grants (Credits) Scheme on 1 July 2004; and
- Environment Australia propose to Government by end 2003 final proposals for additional air quality measures deemed under the processes above to be cost effective in improving air quality and to form the environmental component of the Energy Grants (Credits) Scheme to be implemented on 1 July 2004.

Recommendation 10: Mandated fuel standards — early introduction

That by the end of 2005, Environment Australia should assess:

- the success and cost effectiveness of the ultra low sulphur diesel subsidy; and
- the costs and benefits of implementing incentives for the early introduction of fuels complying with fuel standards that may be introduced after 2006.

Recommendation 11: Fuels policy

If direct government subsidies are considered justified for alternative fuel production in Australia, this should occur under a comprehensive policy framework that applies equally to all fuels.

Recommendation 12: Fuel Sales Grants Scheme

The Fuel Sales Grants Scheme should be discontinued from 1 July 2004.

Recommendation 13: Petroleum Products Freight Subsidy Scheme

The Petroleum Products Freight Subsidy Scheme should be discontinued from 1 July 2004.

Recommendation 14: Residential Fuel Credit Scheme

A full credit of fuel excise should be provided for residential use of diesel, heating oil and LPG used for residential heating, cooking and domestic electricity generation from 1 July 2004.

Recommendation 15: Single fuel tax administration

There should be a single administrating organisation for fuel tax collection:

- the administration of customs duty collection on all imported fuel products should be transferred to the ATO; and
- there should be full consultation with Customs to ensure Customs' objective of border integrity is maintained.

Recommendation 16: Supply subsidy for early introduction of ultra low sulphur (50 ppm) diesel

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.

The ATO, in consultation with relevant parties, should finalise implementation details according to the following principles.

- 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 ATO for both regular diesel and ULSD.

- Diesel Fuel Rebate Scheme recipients should continue to receive a full or partial rebate on the same basis under the higher excise rates.

- Rates of Diesel and Alternative Fuels Grants Scheme grants should remain unchanged.

Recommendation 17: Externality study

Environment Australia should conduct a study to determine the external costs of fuel use in Australia using methodologies that are agreed and accepted by Commonwealth and State Governments.

Recommendation 18: Electronic road pricing benefits assessment

A detailed cost benefit analysis should be undertaken of the use of electronic road pricing for the following purposes:

- reducing congestion and air pollution in major urban areas; and

- charging for the costs of road maintenance and infrastructure.

Recommendation 19: Road pricing trial

A trial of an advanced electronic road pricing application, deemed to be the most cost beneficial by the study proposed in Recommendation 18 be undertaken, funded by Commonwealth and State Governments, with a view to promoting and assessing public acceptance of the application.