

25th July 2003

Sean Innes
Head of Secretariat Energy Task Force
Department of the Prime Minister and Cabinet
3 - 5 National Circuit
Barton
ACT 2600



Dear Sean

Subject : Fuel excise equalisation

Thank you for the opportunity to present the Australasian Fleet Managers Association (AFMA) views at the meeting in Canberra last Wednesday.

The Association has well over 600 members who are responsible for over 800,000 vehicles, and as such we represent the automotive industry's largest user group.

We agree in principle with an equalisation process for automotive fuels, if such a move creates clarity and certainty for fuel providers and more importantly fuel users.

Our agreement in principle is premised on an outcome that meets the needs of all those concerned, the Federal Government, alternative fuel suppliers, the environment and organisations running fleets however large or small.

AFMA sees this process as having a wider dimension than solely Liquid Petroleum Gas (LPG) and considers fuel equalisation as a defining exercise for the future of alternative cleaner fuels.

For some time now the business case for purchasing alternative fuel vehicles has been at best marginal and at worst a loss making venture. The only financial incentive is the lack of excise, resulting in the lower cost at the pump.

When Ford introduced its dedicated LPG vehicle there was a cost premium of \$700 over the equivalent petrol vehicle. The payback period, the time until the \$700 outlay was recovered, was advised by Ford to be approximately 25,000 kilometres.

The dedicated LPG Ford now has a \$1,400 premium. In addition the residual value for such vehicles is conservatively more than a \$1,000 penalty. There are also additional servicing costs associated with this technology.

If \$700 equated to 25,000 kilometres then \$1,400 (premium) plus \$1,000 (residual disadvantage) means the payback period is extended beyond 85,000 kilometres; this is before any additional servicing costs are factored in.

The up front costs, residual disadvantage, residual uncertainty and increased servicing costs have already rendered LPG as financially uncompetitive. Even with the lower

upfront cost of the Mitsubishi at \$800, with a payback period of 64,000 kilometres plus, the business case is still less than compelling.

Yet while transport contributes up to 26% of CO₂ and 16% of all greenhouse gases the Association believes that alternative cleaner fuels such as LPG do provide benefit to both the community and the economy and should be encouraged.

We also seek to understand the outcome should the consequence of the equalisation process render alternative cleaner fuels as effectively uncompetitive. The question then arises what alternatives would be encouraged and what other likely outcomes would emerge?

Fuel equalisation also brings the responsibility to not enable a less desirable outcome to develop than that which already exists. Although the equalisation model is not yet determined, we would see the most likely outcome of an equalisation program based on energy content and CO₂ output alone would be that it encourages diesel as a fuel of first choice which we see as detrimental.

When AfMA refers to alternative fuel we deem these to be fuels where their collective emissions are less detrimental to the environment, people and trees, than petrol as a base case. In this context we believe diesel is not an alternative cleaner fuel.

Our research from around the world has consistently seen a common view presented that is very clear in its message. This is that in terms of impact on community health, due the output levels of nitrous oxides and particulate matter, diesel fuel is extremely undesirable.

So much so that a major USA EPA study in to the “Health Assessment Document for Diesel Engine Exhaust” (DE) (EPA/600/8-90/057F May 2002 see attached) categorises diesel emissions as carcinogenic. This 600 plus page document identifies in its summary and conclusions that: -

“DE is considered to pose a human lung carcinogenicity hazard, which is expressed in a weight-of-evidence conclusion that DE is judged to be a “probable” human carcinogen, or is “likely to be carcinogenic in humans by inhalation” at environmental or higher exposure conditions.”

Also in the USA the South Coast Air Quality Management District in Southern California voted unanimously to require all refuse trucks and transit buses to stop using diesel.

Closer to home, two studies by EPA Victoria, “Melbourne Mortality Study” and the “Hospitals Admissions Report” clearly link the incidence of mortality and hospital admissions to the levels of nitrous oxides and particle matter in the environment.

AfMA accepts that the Government and the DITR are interested in the environment. The Association has been in an eighteen-month partnership with the DITR as part of their Energy Efficiency Best Practice Program.

The Greener Motoring program launched in February 2002 now has over 650 participating organisations managing 687,000 plus vehicles. Of the 22 organisations awarded the Certificates of Energy Best Practice most achieved significant fuel reductions by fuel substitution, moving from petrol to alternative fuels, mostly LPG.

The budget announcement has had an immediate effect on fleets and several A/MA members have already indicated that they will either stop using, or not consider using LPG.

Ford have sold some 20,000 plus dedicated LPG vehicles since its introduction. The prospect that a dedicated alternate fuel vehicle may have little or no cost advantage after equalisation has already seen residual values for such vehicles being marked down. A \$3,000 residual value reduction is quite feasible.

Unless an outcome is communicated very soon that ensures the dedicated LPG vehicle's viability, industry is already looking at a \$20 million loss for every additional \$1,000 residual reduction (20,000 vehicles times \$1,000 residual reduction). If the figure is \$3,000 then the loss expands to \$60 million.

Issues for consideration

We suggest that for the equalisation process that petrol be used as the base case. Equalisation should be based on the whole range of emissions from each fuel with heavier weighting (penalty) being placed on the most undesirable chemical or particulate emission.

The Association notes that we are one of the few OECD countries that does not directly assist in the purchase of the alternative cleaner fuel vehicles. In the United Kingdom for instance, purchase subsidies for alternative cleaner vehicles can be as high as 75%, see attached.

What we would encourage is that, for the purchase of dedicated cleaner fuel vehicles (not diesel), the business purchaser be able to claim a total input tax credit of 20%. For a vehicle costing \$35,000 this would equate to a \$3,500 incentive for the purchase of dedicated alternative cleaner fuel vehicles.

For retail (new vehicle) buyers it might be considered to classify such vehicles as zero Goods and Service Tax (GST).

Purchasers of second hand (used) dedicated alternate fuel vehicles will still require an identifiable positive cost advantage over the less clean fuels such as petrol and diesel.

Figures supplied by the ALPGA show that some 2.238 billion litres of Autogas were purchased last year. If the equalisation process delivered as little as 10 cents excise per litre then the tax revenue take would be \$223.8 million.

To support the purchase of 20,000 dedicated LPG vehicles per year would cost \$70 million (20,000 vehicles x \$3,500) leaving some \$153 million as tax revenue. Stimulating the purchase of 20,000 vehicles would also raise the demand for LPG significantly and the subsequent tax take.

We believe such an approach would provide the win-win outcome we should be seeking, as: -

- Fuel would be equalised on its total impact on the environment;
- Purchases of dedicated cleaner fuel vehicles would be encouraged;
- The extensive existing LPG infrastructure would not only be retained but would expand to meet increased demand for the product;
- The second hand market would be stimulated by the positive economic differential between petrol, diesel and LPG.

We would be happy to discuss any of the above further with you. Thank you for your time.

Yours sincerely,

With kind regards,

A handwritten signature in black ink, appearing to read 'M. Thompson', followed by a horizontal line extending to the right.

Marja Thompson
Executive Director



United States
Environmental Protection
Agency

Health Assessment Document For Diesel Engine Exhaust

EPA/600/8-90/057F

May 2002

Health Assessment Document for Diesel Engine Exhaust

National Center for Environmental Assessment
Office of Research and Development
U.S. Environmental Protection Agency
Washington, DC

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This document has been reviewed in accordance with U.S. Environmental Protection Agency policy and approved for publication. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.

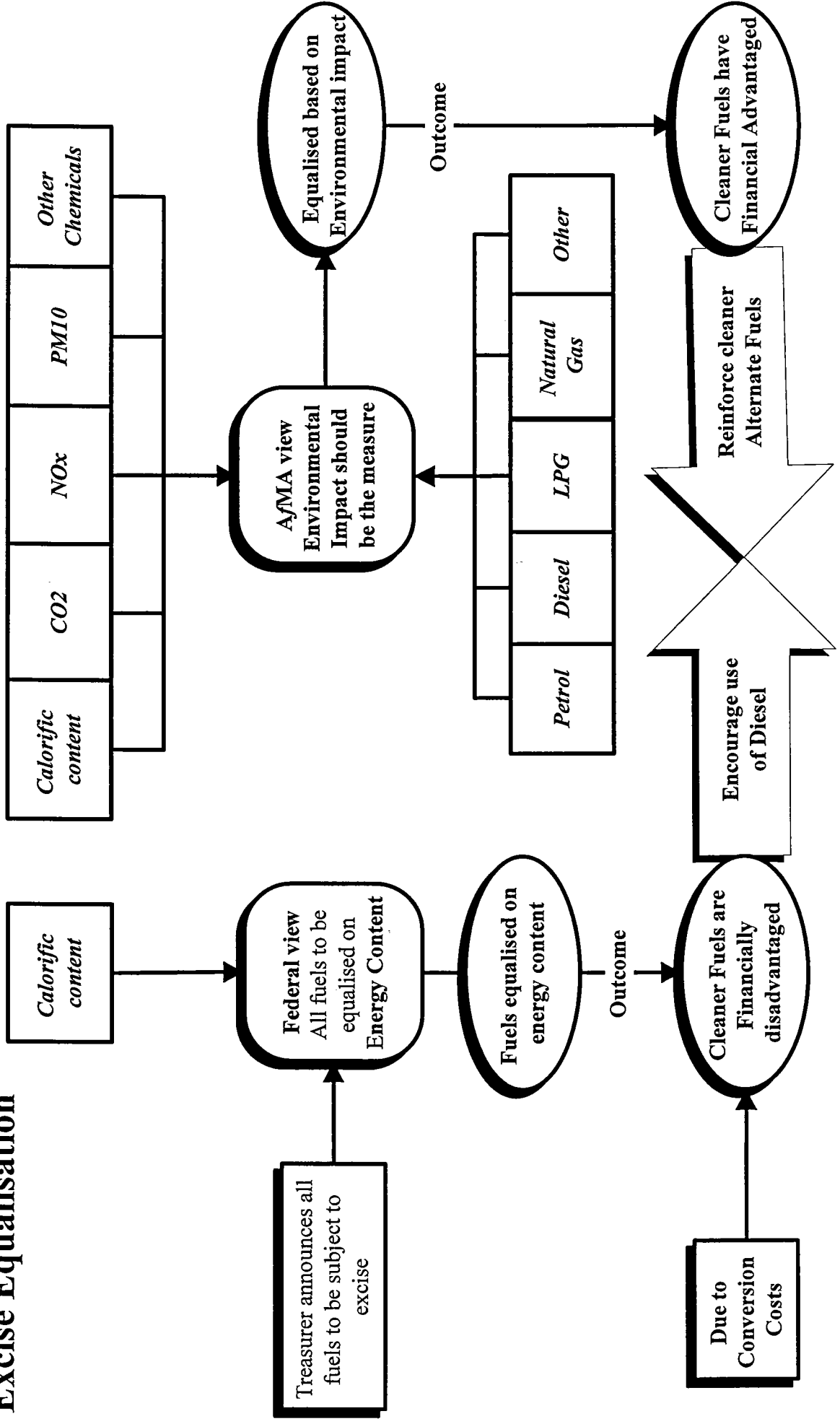
ABSTRACT

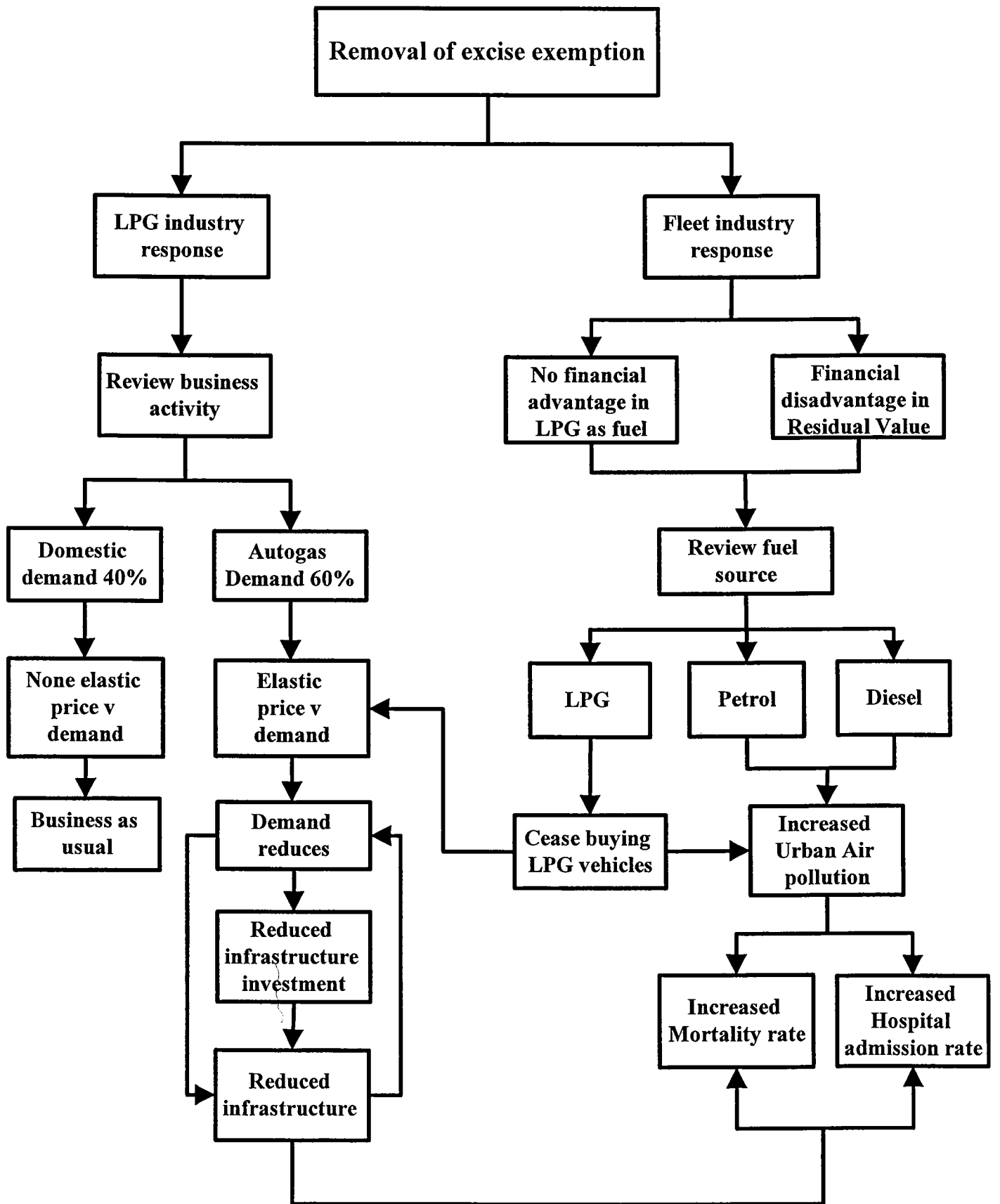
This assessment examined information regarding the possible health hazards associated with exposure to diesel engine exhaust (DE), which is a mixture of gases and particles. The assessment concludes that long-term (i.e., chronic) inhalation exposure is likely to pose a lung cancer hazard to humans, as well as damage the lung in other ways depending on exposure. Short-term (i.e., acute) exposures can cause irritation and inflammatory symptoms of a transient nature, these being highly variable across the population. The assessment also indicates that evidence for exacerbation of existing allergies and asthma symptoms is emerging. The assessment recognizes that DE emissions, as a mixture of many constituents, also contribute to ambient concentrations of several criteria air pollutants including nitrogen oxides and fine particles, as well as other air toxics. The assessment's health hazard conclusions are based on exposure to exhaust from diesel engines built prior to the mid-1990s. The health hazard conclusions, in general, are applicable to engines currently in use, which include many older engines. As new diesel engines with cleaner exhaust emissions replace existing engines, the applicability of the conclusions in this Health Assessment Document will need to be reevaluated.

Preferred citation:

U.S. Environmental Protection Agency (EPA). (2002) Health assessment document for diesel engine exhaust. Prepared by the National Center for Environmental Assessment, Washington, DC, for the Office of Transportation and Air Quality; EPA/600/8-90/057F. Available from: National Technical Information Service, Springfield, VA; PB2002-107661, and <<http://www.epa.gov/ncea>>.

Unintended Outcomes Excise Equalisation





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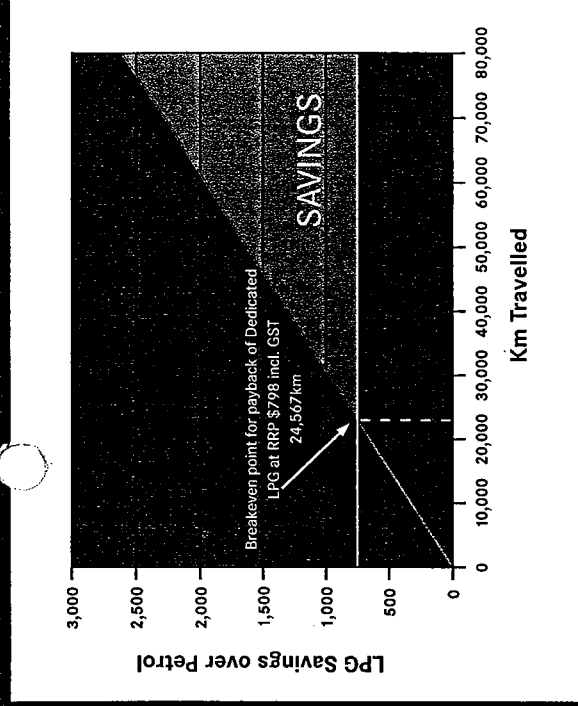


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*RACV Royal Auto Consumer Report on running costs, June 2001. †Dedicated LPG available on Series III Falcon Forté, Futura, SR sedan and wagon and XL, XLS Falcon Ute models. *Calculated using AS2877 city cycle fuel consumption tests for Falcon Forté 6-cylinder auto sedan, based on an average of 30,000km travelled per year. Average major Sydney and Melbourne metropolitan fuel costs for LPG (39.87c) and unleaded petrol (80.25c), November 1, 2001 to January 31, 2002 - Source of information supplied is Informed Sources Pty Ltd. RRP of Dedicated LPG engine option is \$798 (incl. GST).





AMBIENT AIR POLLUTION
AND DAILY HOSPITAL ADMISSIONS
IN MELBOURNE
1994-1997

Publication 789
November 2001





Melbourne Mortality Study

**EFFECTS OF AMBIENT AIR POLLUTION
ON DAILY MORTALITY IN MELBOURNE
1991-1996**





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PowerShift grant levels July 2002

Changes to PowerShift Grant Levels – 1 April 2002

The PowerShift programme allows the payment of a grant towards the cost of a clean fuel vehicle. The grant is calculated as a percentage of the additional (ex-VAT) cost of buying or converting a vehicle to run on clean fuels. However, we are not allowed to reduce the VAT element of the cost.

Depending on its emissions performance, each vehicle on the PowerShift Register is assigned to an Emissions Band - this helps to determine the percentage funding allowable. There are three Bands: 2, 3, and 4, with Band 4 being the cleanest.

A. Electric vehicles

Electric vehicles are considered to be in Band 4 as they have zero tailpipe emissions and as such they are funded at 75%.

Petrol/electric hybrid vehicles are also assigned to Band 4. However, they receive a fixed grant of £1000 per vehicle. These grants are administered through the dealers - please contact your local Toyota or Honda dealer for information.

B. NG and LPG vehicles with a GWV of greater than 3.5 tonnes:

Band	2	3	4
Euro level (compliance with all limits measured on the ETC test cycle)	Achieves Euro-III on clean fuel	Achieves Euro-IV on clean fuel	Achieves Euro-V on clean fuel
Funding Percentage	40%	60%	75%

C. All other NG and LPG vehicles with a GVW of 3.5 tonnes or less:

Band	2	3	4
Euro Level (compliance with (NOx + HC) limits only)	Achieves Euro-III on clean fuel	Achieves Euro-IV on clean fuel	Achieves 40% cleaner than Euro-IV on clean fuel
Base petrol meets Euro-IV	30%	40%	50%
Base petrol meets Euro-III	0%	30%	40%
Base petrol meets Euro-IV	0%	0%	30%

Funding levels in this category are based upon the improvement in emissions of NOx and HC when running on gas compared with running on petrol.

In addition to this, the following vehicle categories are eligible for an additional grant percentage (provided that the base percentage from the table above is greater than zero) as follows:

1. New cars and vans from vehicle manufacturers (VMs) will get an extra 20%
2. VM-approved conversions of new petrol cars and vans will get an extra 20% (note that a VM-approved conversion is defined as one which is warranted by the vehicle manufacturer)
3. New cars and vans from vehicle manufacturers which have been type-approved on the clean fuel will get an extra 10%

So, for example, a new bi-fuel Vauxhall Astra which achieves Euro-IV emissions on petrol, and which achieves 40% better than Euro-IV (for NOx and HC) on gas would qualify for a 30% base grant plus a 20% VM bonus plus a 10% type approval bonus giving a total grant of 60%.

The PowerShift Register has full details of the level of funding applicable to each vehicle type.

Technical Emissions Requirements (gas vehicles <= 3.5 te GVW)

The technical emissions requirements for PowerShift funding are listed below. The vehicle is emissions tested to the appropriate European Test Cycle on a chassis dynamometer at a PowerShift-approved testing facility.

For category C vehicles (see above), the test results must show that:

1. The emissions of all regulated pollutants must be legal on both petrol and gas
2. The tailpipe emissions of NOx on gas must be lower than the vehicle's petrol NOx emissions + 0.02g/km (for base vehicles of Euro-III and Euro-IV)
3. The tailpipe emissions of HC on gas must be lower than petrol or be within the Euro-IV limit (for base vehicles of Euro-III and Euro-IV) after multiplication by a deterioration factor of 1.2
4. CO2 emissions must be at least 7% better than on petrol

The sum of the (NOx + HC) emissions multiplied by a deterioration factor of 1.2 will determine the Band into which the vehicle falls.

The vehicle will be tested to the Euro-II test cycle if the base petrol vehicle is Euro-II, and to the Euro-III test cycle if the base petrol vehicle is Euro-III or Euro-IV.

Notes:

1. NG = natural gas
2. LPG = liquefied petroleum gas
3. GVW = gross vehicle weight
4. NOx = nitrogen oxides
5. HC = hydrocarbons
6. VM = vehicle manufacturer
7. CO2 = vehicle carbon dioxide

For further information on applying to become a PowerShift-approved supplier or vehicle types approved onto the PowerShift Register please call our technical consultants, Colt Services, on 01525 287200.