



SUBMISSION TO THE

GARNAUT CLIMATE CHANGE REVIEW

APRIL 2008

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1. INTRODUCTION

The Garnaut Climate Change Review was commissioned in April last year by the then leader of the Federal Opposition, Kevin Rudd, in conjunction with the Premiers and Chief Ministers of the state and territory governments. The review has been a joint initiative of the Australian, state and territory governments since election of Federal Labor to the office of Australian Government.

The terms of reference set for the Garnaut Review requires the final report to provide an assessment on:

1. The likely effect of human induced climate change on Australia's economy, environment, and water resources in the absence of effective national and international efforts to substantially cut greenhouse gas emissions;
2. The possible ameliorating effects of international policy reform on climate change, and the costs and benefits of various international and Australian policy interventions on Australian economic activity;
3. The role that Australia can play in the development and implementation of effective international policies on climate change; and

In light of 1 to 3, recommend medium to long-term policy options for Australia, and the time path for their implementation which, taking the costs and benefits of domestic and international policies on climate change into account, will produce the best possible outcomes for Australia.

The terms of reference provide the Garnaut Review with scope to undertake a thorough assessment of current and prospective interventions, implemented at the jurisdiction of all levels of government, which could be considered to materially influence the effectiveness, efficiency and equity of Australia's response to climate change.

The Australian Trucking Association (ATA) welcomes the expansive review and appreciates Professor Garnaut's invitation for submissions.

This submission details the trucking industry's positions on design of the emissions trading scheme and on appropriate complementary measures to be introduced alongside and emissions trading scheme.

2. THE AUSTRALIAN TRUCKING ASSOCIATION

The ATA was originally established in 1989 as the Road Transport Forum and is the peak national body uniting and representing the interests of the Australian trucking industry.

The ATA provides public policy advocacy at the national level for trucking operators and industry employees through a federated membership structure comprising state and sector based trucking associations, the Transport Workers' Union and some of the nation's largest transport enterprises.

Policy coverage of the ATA encompasses industry safety, skills and workforce shortages, the environment and climate change, taxation and pricing, infrastructure and transport planning.

The ATA is a member of the Australian Industry Greenhouse Network (AIGN) and contributes to the formulation of industry positions on greenhouse policy.

The general views of AIGN members on particular aspects of greenhouse policy are represented in the various submissions prepared by the AIGN. These views differ in particulars, relating to both principle and detail, from the positions of individual member associations and companies.

The AIGN submissions to the Garnaut Review should be read in conjunction with this submission.

3. THE AUSTRALIAN TRUCKING INDUSTRY

The transport sector plays a vital role in the Australian economy given the country's huge land mass, dispersed population and production centres and trade advantages in minerals, energy and agriculture production. Transport services provide the means through which communities and industries are interconnected across vast overland distances and are connected with the rest of the world in efficient and streamlined production and distribution networks.

The trucking industry is an especially important component of the Australian transport sector because road freight services impart significant logistical efficiencies in servicing the demands of non-bulk and, to a lesser extent, bulk freight customers. In 2005-06, road transport and storage services contributed \$30 billion to Australia's national income, accounting for 3.3 per cent of gross industry value added¹.

The hire and reward sector of the Australian trucking industry comprises around 48,000 individual operators and has a 16-firm turnover concentration ratio of less than one-quarter². The fiercely competitive market structure of Australian trucking is uncompromising to industry participants and perhaps the greatest source of value to the downstream industries and communities who depend upon individualised, efficient and efficiently priced freight transport.

Road transport is the dominant freight transport mode in Australia. In 2004-05 road transport is estimated to have carried in excess of 2 billion tonnes of freight or 75 per cent of the total tonnage carried by Australian domestic transport. Extending the measure to incorporate both mass and distance, road transport is estimated to have moved 194 billion-tonne kilometres of freight or 38 per cent of the 2004-05 domestic freight task, with rail and domestic shipping accounting for 36 and 22 per cent respectively³.

4. ENVIRONMENTAL POLICY IN THE TRUCKING INDUSTRY: GREENHOUSE AND AIR POLLUTION

In responding to climate change the trucking industry faces a dual challenge insofar as the Australian Design Rules (ADR) 80 series (emission control for heavy vehicles) continues to further tighten air pollution emission standards, which relate to nitrogen oxides (NO_x) and particulate matter (PM).

Compliance with the recently introduced ADR 80/02 (Euro 4 equivalent) standards has been achieved by diesel engine manufacturers through various means, including:

- Exhaust gas recirculation (EGR) technology;
- Selective catalyst reduction (SCR) technology; and
- High air flow intake and controlled injection.

While engine technology continues to deliver enhanced fuel consumption for the trucking industry, the introduction of more stringent air pollution emission control comes at a cost to the industry of increased fuel consumption, increased carbon dioxide (CO₂) emissions and increased engine costs.

¹ Australian Bureau of Statistics (ABS), Australian National Accounts: National Income, Expenditure and Product, cat. no. 5206.0.

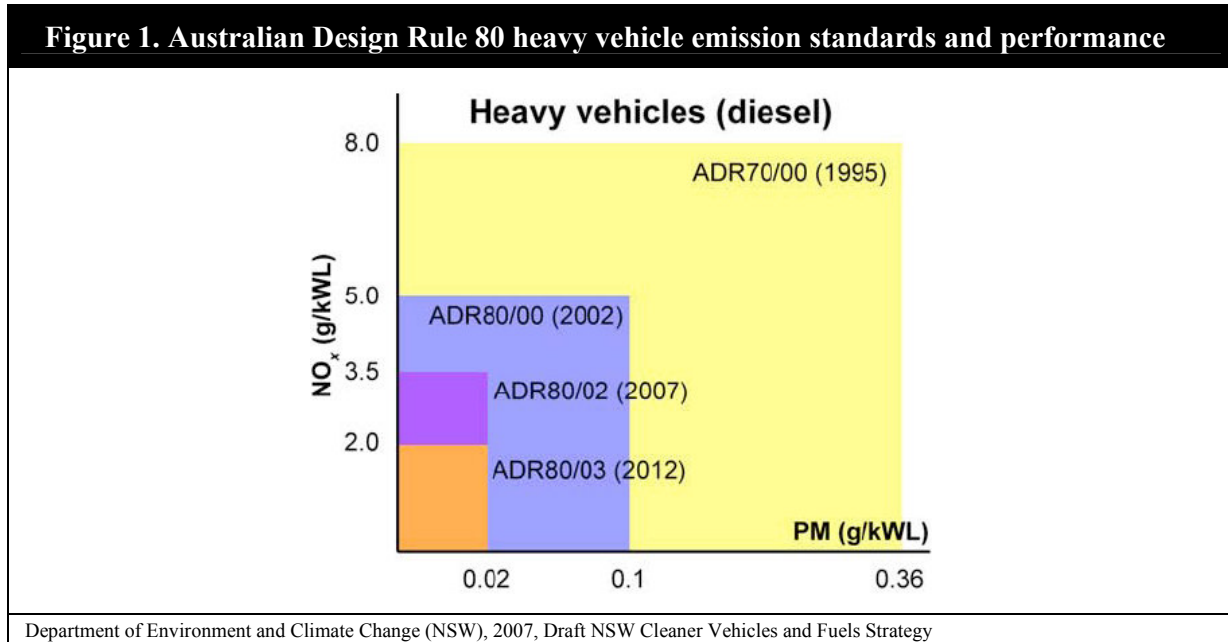
² Bureau of Infrastructure, Transport and Regional Economics (BITRE), 2003, *Working Paper 60: An Overview of the Australian Road Freight Transport Industry*

³ Australian Logistics Council (ALC), 2007, *Contribution of Transport and Logistics to the Economy*

The Bureau of Infrastructure, Transport and Regional Economics (BITRE) notes that compliance with ADR heavy vehicle emission standards could involve increased CO₂ emissions from the trucking industry as a result of the potential fuel efficiency overheads⁴.

Furthermore, the Department of Environment and Climate Change (NSW) notes that the opportunity for deriving significant emission benefits by further tightening the ADR heavy vehicle emission standards appears to be marginal when technology costs are taken into consideration⁵.

As illustrated in Figure 1, below, the theoretical air quality benefits from further tightening ADR heavy vehicle emission standards beyond what is already foreshadowed will, as demonstration of the law of diminishing marginal returns, deliver only marginal benefits.



The trucking industry has made enormous advances in improving air quality in and around Australia's metropolitan regions through the uptake of advanced engine technology.

At this critical time it is appropriate to ensure a clear delineation of the policy objectives associated with greenhouse and those associated with air pollution and acknowledge the environmental policy constraint inherent in the trucking industry.

Essentially, at current levels of engine technology, a constrained optimum will need to be negotiated between the level of greenhouse gas and air pollution emissions produced by the internal combustion process of heavy vehicle engines.

In this respect, environmental policy faces a dilemma of mutual exclusivity that must be resolved at some stage during the climate change negotiations.

⁴ BITRE, 2005, Greenhouse Gas Emissions from Australian Transport: Base Case Projections to 2020

⁵ Department of Environment and Climate Change (NSW), 2007, Draft NSW Cleaner Vehicles and Fuels Strategy

5. THE DOMESTIC FREIGHT MARKET AND INDUSTRY COMPETITION DYNAMICS

Throughout the development and implementation of Australia's response to climate change, ensuring efficient outcomes prevail in the domestic freight market will be imperative for Australian emissions reduction targets to be achieved at least cost to the economy.

Freight transport is a highly integrated intermediate input to production. It both facilitates and is influenced by the scale of production, the nature of consumption and the level of exchange within and between national economies.

The existence of trading markets in the first instance and the magnitude of exchange thereafter is consequential to outcomes prevailing in the markets for freight transport.

The price of freight transport is of significant and direct consequence to the level of economic activity, specifically as it relates on the supply side to specialisation in production and increasing economies of scale and on the demand side to diversification in consumption and increasing subdivision of final output markets.

The National Transport Commission (NTC) has identified increasing economies of scale and the subdivision of final output markets as two of the most important factors influencing growth in the demand for freight transport⁶.

Official estimates by the BITRE predict that the domestic freight task will grow at an average annual rate of 2.8 per cent, from 430 billion tonne-kilometres in 2003 to 683 billion tonne-kilometres in 2020⁷.

Growth in the movement of non-bulk freight is predicted to substantially outstrip growth in the movement of bulk freight over the period, with non-bulk freight growing at an average annual rate of 3.6 per cent per annum, from 146 billion tonne-kilometres in 2003 to 267 billion tonne-kilometres in 2020 and bulk freight growing at an average annual rate of 2.3 per cent per annum, from 283 billion tonne-kilometres in 2003 to 416 billion tonne-kilometres in 2020⁸.

Growth in the road freight task is forecast to grow at an average annual rate of 3.8 per cent through to 2020, leading to an increase in the modal dominance of road transport in the domestic freight market and a doubling in the output of road freight transport over the period 2000 to 2020⁹.

The main area of freight competition between road and rail exists on the intercapital freight corridors and to a lesser degree on the interstate freight corridors.

In 2003, the intercapital non-bulk freight task, at 39 billion tonne-kilometres, comprised less than 10 per cent of the total domestic freight task and the interstate non-bulk freight task, at 79 billion tonne-kilometres, comprised less than 20 per cent¹⁰.

Road transport dominates both the intercapital and interstate non-bulk freight markets, with a notable exception on the east-west corridor. Of the 39 billion tonne-kilometres of non-bulk freight carried between capital cities, road freight transport serviced 24 billion tonne-kilometres or roughly 60 per cent. Of the 79 billion tonne-kilometres of non-bulk freight carried across state and territory borders road freight transport serviced 52 billion tonne-kilometres or roughly 65 per cent¹¹.

⁶ National Transport Commission (NTC), 2006, *Twice the Task: A Review of Australia's Freight Transport Tasks*

⁷ BTRE, 2006, *Report 112: Freight Measurement and Modelling in Australia*

⁸ Ibid

⁹ Ibid

¹⁰ Ibid

¹¹ Ibid

Even on the intercapital freight corridors, modal competition is limited by the inherent differences in the service delivery characteristics between road, rail and maritime. Road transport dominates the market because it is flexible, market responsive and provides the greatest degree of streamlined connectivity to Australian industry and Australia's dispersed communities.

Economic modelling undertaken by the Productivity Commission (PC) shows that road and rail are complementary freight transport modes, i.e. the cross-price elasticity of rail freight services with respect to road freight is negative. Simulations show that if taxes on road freight transport were increased substantially there would be only a marginal shift in the modal share composition of the Australian freight market and this would come at the expense of an overall reduction in rail output due to a contraction in the size of the domestic freight market¹².

While infrastructure pricing arrangements pertaining to road and rail freight transport are different, the PC in its voluminous inquiry report on road and rail infrastructure pricing made a considered determination that, even accounting for externalities, competitive distortions between road and rail are not a significant source of freight market inefficiency¹³.

Specifically, the PC dismissed the case that road freight transport is subsidised relative to rail freight transport as not compelling, with particular reference to the inter-capital freight markets¹⁴.

6. LEAST-COST, NON-DISTORTIONARY EMISSIONS REDUCTIONS

The measures introduced by governments now in response to climate change will have a lasting impact on the industrial composition of the Australian economy and, importantly, on the structural foundations of production and distribution networks.

If measures are introduced, as have been suggested by some in business and in the community, that seek to discriminatively impose the costs of climate change mitigation on freight transport, Australian households must be prepared to endure additional and unnecessarily inflated costs associated with the achievement of national emissions reduction targets.

The Australian Government recently confirmed its intention to introduce a cap and trade emissions trading scheme in Australia beginning in 2010 that will be comprehensive enough in coverage to capture greenhouse gas emissions from the transport sector from the outset.

The Australian Trucking Association is working collaboratively with the Government and in partnership with other industry associations to ensure the commitment to emissions trading is realised and that the approach taken by government is designed and delivered to industry and the community at least cost.

With an emissions trading scheme in operation, suitably comprehensive in scope and design as to minimise distortions within the domestic economy and avoid carbon leakage abroad, it is intended that Australia's annual greenhouse gas emissions reduction targets will be achieved in a most efficient and least cost manner.

In her speech of 6 February to the Australian Industry Group, the Minister for Climate Change and Water, Senator the Hon Penny Wong, identified three guiding principles for assessing whether existing and/or prospective measures are complementary to an emissions trading scheme.

¹² Productivity Commission (PC), 2006, *Inquiry Report 41: Road and Rail Freight Infrastructure Pricing*

¹³ Ibid

¹⁴ Ibid

The ATA, alongside the AIGN and its members, commend these principles as forming the underpinnings of an assessment of any existing or prospective policies, programs or regulations that include as their objective the reporting or reduction of greenhouse gas emissions or energy, the latter as a proxy for emissions, as complementary to emissions trading:

- An efficient and effective national emissions trading scheme will be “at the heart” of emission reduction efforts;
- Measures put forward to be additional to emissions trading must clearly identify and demonstrably address “market failures”; and
- Both the emission trading design and any additional measures must reduce emissions at least cost and ultimately push down the costs of emissions reductions.

The ATA has identified the following measures applicable to the trucking industry as not complementary to an emissions trading scheme and therefore submits for the consideration of the Garnaut Review that the following measures be explicitly dismissed as contributing to least cost mitigation:

- On-going subsidies for commercially available low emissions alternative fuels;
- Mandatory renewable energy targets, including bio-fuels targets;
- Fuel efficiency regulation on heavy vehicle engines;
- Mandatory greenhouse and/or energy programs;
- Increased taxes on road freight transport;
- Increased subsidies to rail or maritime freight transport; or
- Mandatory rail or maritime freight targets.

7. THE POINT OF LIABILITY FOR LIQUID FUELS AND THRESHOLDS IN AN EMISSIONS TRADING SCHEME

In designing an emissions trading scheme that intends to capture emissions generated in the transport sector, the ATA submits for the consideration of the Garnaut Review, the following policy principles regarding the point of liability for liquid fuels and thresholds in an emissions trading scheme:

- Point of liability for the acquittal of emissions as near as is possible to the point source of the production of emissions, with due regard, however, to:
 - Maximising coverage; and
 - Minimising the transactions and administrative costs of the emissions trading scheme;
- Upstream liability for permit acquittal of Scope 1 liquid fuel combustion emissions, with liability determined by the administrative point of fuel excise remittance;
- Entities that exceed the acquittal threshold set by the regulator liable for self-acquittal of all Scope 1 emissions not already covered by upstream parties;

- Emissions contributing to acquittal thresholds net of Scope 1 emissions covered by upstream parties;
- Provisions allowing liability transfer of Scope 1 emissions covered upstream, from liable fuel excise remitters to downstream consumers, subject to feasibility and agreement by the regulator and the liable party; noting, that it may not be feasible to transfer liability downstream where the consumer is separated from the administrative point of fuel excise remittance by multiple contractual arrangements.
- Exemption of Scope 1 emissions covered upstream for liquid fuels used for feedstock, in which case the downstream consumer is liable for verification of the liquid fuel use to the regulator.

8. THE SHORT TO MEDIUM TERM: POLICY COORDINATION, INFRASTRUCTURE, ACCESS, FUELS AND ENERGY

While it is recognised that emissions trading is the centrepiece of climate change policy and that the correction of unpriced greenhouse gas emissions will provide the most substantial contribution to the reduction of greenhouse gas emissions; it is noted that there exist market failures, institutional failures and regulatory blockages elsewhere in the economy that materially affect the ability of the trucking industry to improve its greenhouse performance.

Road infrastructure is important and productive road network access even more so. Targets, trading and pricing are conduits that will have significant impact over the longer term, enhanced industry productivity will be necessary to deliver emissions reductions over the short to medium term.

The ATA has identified the following measures as complementary to an emissions trading scheme and therefore submits for the consideration of the Garnaut Review that the following measures be explicitly recognised as contributing to least cost mitigation:

- Substantially reforming the cross-jurisdictional institutional arrangements that govern the level and distribution of road infrastructure funding;
- Roll out regulatory reforms that have either been promised to the community but yet not delivered to a sufficient standard or scale or that have the potential to significantly boost safety, productivity and environmental performance in the trucking industry, including:
 - Expansion of the B-triple network to link the east coast capitals (see Case Study 1 below), including B-triple access arrangements that are granted outside of the Performance Based Standards (PBS) system, with the following priorities:
 - Melbourne to Adelaide via the Great Western and Dukes highways;
 - Melbourne to Brisbane via the Newell Highway;
 - Melbourne to Sydney via the Hume Highway, including the Barton and Federal Highway links to Canberra; and
 - Sydney to Adelaide via the Sturt and Hume highways;

- Expansion of the B-triple network to include the missing links on the existing network, particularly the link from Adelaide to Broken Hill.
- Expansion of the Higher Mass Limits network, particularly in NSW given its geographic importance for the movement of interstate transport;
- Increased road network access, moving to general access, for quad-axle groups in 19m semi-trailer combinations;
- Establishment of an effective and administratively streamlined Performance Based Standards system that institutes a single national decision making body; and
- Targeted infrastructure investments to construct highway deviations that avoid steep grades and therefore increase the fuel efficiency of road transport;
- Strong congestion management in urban areas through measures that focus on passenger traffic as well as road freight transport, including through:
 - Re-allocating road space to provide freight priority lanes and priority ramp access on the links to major ports and intermodal facilities; and
 - Planning arrangements for separating long distance traffic on the AusLink network from local car traffic, with the creation of limited access express lanes on freeway routes where it is not possible to upgrade local service roads;
- Research and development funding for low emission alternative fuels technology coupled with funding for research and development for engine technology to enable the introduction of alternative fuels; and
- Research and development funding for examining the commercial feasibility of cross-corporation integrated logistics systems, including cooperative loading schemes.

Case study 1: Greenhouse benefits of increasing trucking industry productivity

In 2007 the NTC published a case study about the productivity benefits of using B-triples on intercapital routes.

The study pointed out that a national linehaul trucking operator with 60 B-doubles and semi-trailers could use B-triples to reduce the number of trips by one in four, reduce operating costs by 22 per cent and save 3.7 million kilometres of truck travel per year.

Through reduced fuel consumption, these productivity gains have tremendous potential to reduce greenhouse gas emissions.

The ATA has calculated that by saving 3.7 million kilometres of B-double and semi-trailer truck travel, the linehaul operator could reduce fuel consumption by in excess of 2 million litres of diesel per year and direct greenhouse gas emissions by more than 5,900 tonnes of CO₂ equivalent per year.

9. THE LONG TERM: FIRST-CLASS INSTITUTIONS SPURRING TECHNOLOGY FOR THE ROAD FAR BEYOND

Climate change has presented the community, industry and governments across the globe with an issue of such proportions that public concern and demands have prompted, a most revolutionary policy response; the establishment of commodity and financial markets that intend to facilitate the allocation of rights to emit greenhouse gas emissions and mitigate the political, business and financial risk pertaining thereto

At the outset, the trucking industry faces a bleak set of substitutable fuels. Moving forward, the industry will require significant technological advances to achieve sizable emissions reductions.

The success or futility of emissions trading in achieving emissions reductions and further achieving these reductions at least cost to the economy will be entirely dependant upon the appropriateness and credibility of the newly created market for emissions permits.

Over the longer-term, the merits of a market based approach to emissions reductions will attribute to the way in which forward price relativities create incentives for the development and uptake of low emissions production technologies.

The importance of work of the Garnaut Review, the Department of Climate Change and the Treasury in developing this emissions trading scheme and thereafter linking internationally cannot be underestimated.

The ATA appreciates this opportunity to provide input to the Garnaut Review as the nation moves rapidly ahead in design an emissions trading scheme and a comprehensive approach to climate change mitigation.