Submission re Review of the Emissions Reduction Fund Consultation Paper

Philip Laird, University of Wollongong, May 2020

This brief submission draws on research conducted at the University of Wollongong. However, the views expressed are those of a personal professional nature.

The consultation paper mentions transport but twice. It is submitted that reducing emissions in this sector is an area that needs more attention.

In Spring 2018, the Climate Council issues a paper WAITING FOR THE GREEN LIGHT: TRANSPORT SOLUTIONS TO CLIMATE CHANGE

This writer has addressed this issue, including March 2020 as per Appendix A and in a 2013 submission urging retention of a price on carbon dioxide emissions – where Appendix B of the present submission has a summary of my 2013 submission.

The issue of Decarbonising Transport and Industry was also addressed by Prof Garnaut in a Lecture In Melbourne on 1 May 2019. To quote from a notice:

> More than a quarter of Australia's greenhouse gas emissions stem from transport and industrial processes, and the decarbonisation of electricity is the centrepiece of transport and industry decarbonisation, including through the increasing use of batteries and hydrogen. Decarbonising the electricity sector creates a path that supports an almost complete decarbonisation of the transport sector and a partial decarbonisation of industry.
>
> This lecture considers Australia's comparative advantage in energy-intensive processes through the conversion of its own minerals into higher value, for example, through the use of biomass as an alternative to fossil hydrocarbons as a base for plastics and industrial materials. Further, the lecture discusses how Australia's advantage in renewable energy and biomass production can extend to advantage the industry and transport sectors.

Given the recent and stark warnings of the impact of climate change in increased temperatures and drought, and bushfires, it is submitted that more needs to be done by the Australian government to reduce emissions in all sectors. For transport, it is submitted that Australia needs to change its outmoded land transport policies. This includes the budget process rebalancing federal government outlays on rail and road, along with serious attention being given to higher fuel excise along with congestion pricing and independent price regulation of heavy truck road user charges. Wider taxation reform is also warranted.

Funding for rail corridor preservation is now needed as a matter of urgency.

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APPENDIX A Transport is letting Australia down in the race to cut emissions

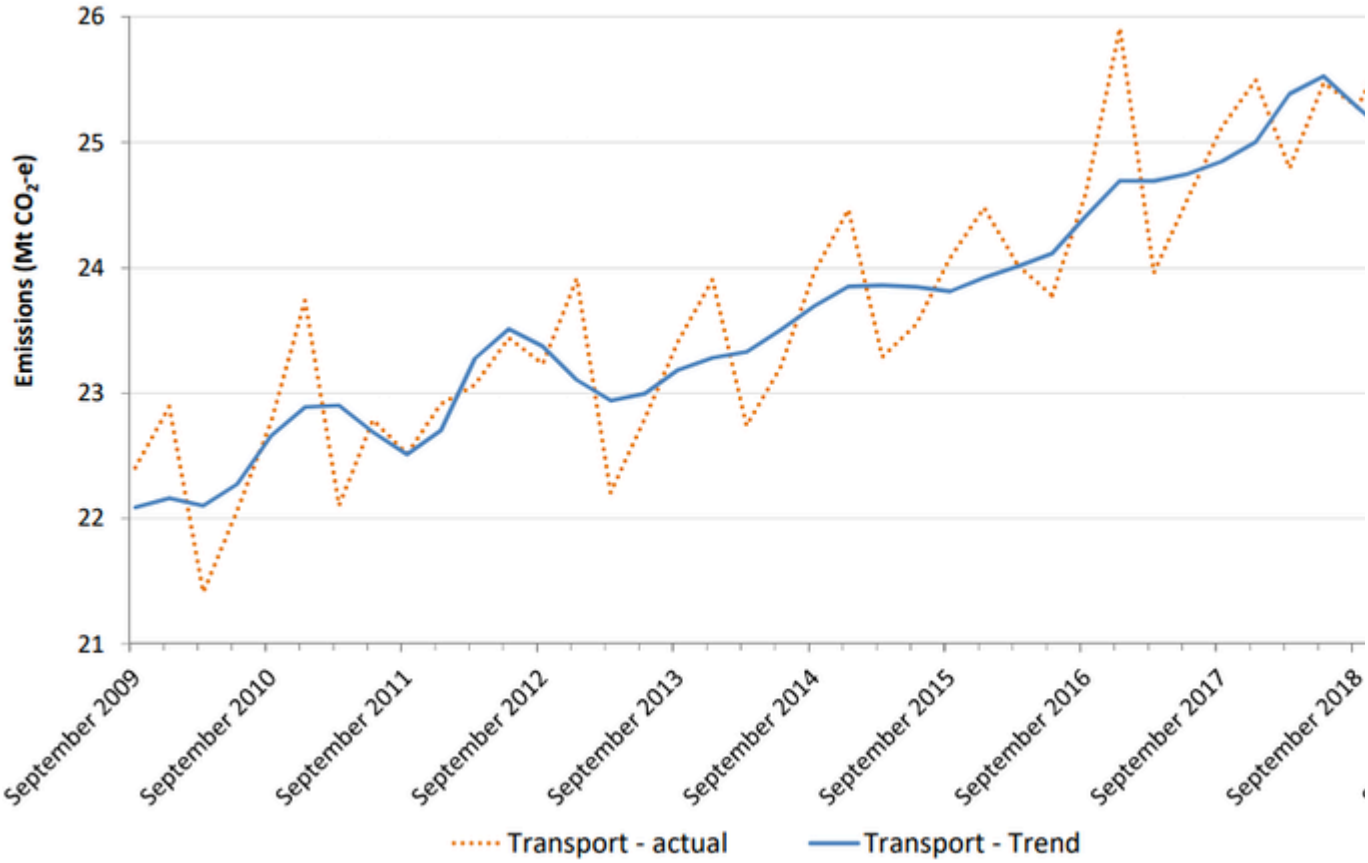
March 2, 2020 The Conversation

At a time Australia is meant to be reducing its greenhouse emissions, the upward trend in transport sector emissions continues. The latest National Greenhouse Gas Inventory report released last week shows the transport sector emitted 102 million tonnes (Mt) of carbon dioxide equivalent ($MtCO_2$-e) in the 12 months to September 2019. This was 18.9% of Australia's emissions.

Overall, the trend in emissions from all sectors have been essentially flat since 2013. If Australia is to reduce emissions, all sectors including transport must pull their weight.

***Read more:** [Four ways our cities can cut transport emissions in a hurry: avoid, shift, share and improve]*

Transport emissions have gone up 64% since 1990. That's the largest percentage increase of any sector.



Transport emissions, actual and trend, by quarter, September 2009 to September 2019.
Source: National Greenhouse Gas Inventory

Transport sector emissions include the direct burning of fuels for road, rail, domestic aviation and domestic shipping, but exclude electricity for electric trains.

Transport emissions are now equal second with stationary energy (fuels consumed in the manufacturing, construction and commercial sectors and heating) at 18.9%. The electricity sector produces 33.6% of all emissions. The main reasons for transport emissions trending upwards are an over-dependence on cars with high average fuel use and an over-reliance on energy-intensive road freight.

Inevitable results of policy failure

Increasing transport emissions are a result of long-standing government policies on both sides of politics. In 2018, the Climate Council noted: Australia's cars are more polluting; our relative investment in and use of public and active transport options is lower than comparable countries; and we lack credible targets, policies, or plans to reduce greenhouse gas pollution from transport.

John Quiggin and Robin Smit recently wrote about vehicle fuel efficiency for The Conversation. They cited new research that indicates emissions from road transport will accelerate. This is largely due to increased sales of heavier vehicles, such as four-wheel drives, and diesel cars.

Read more: We thought Australian cars were using less fuel. New research shows we were wrong

The government has ignored recommendations to adopt mandatory fuel-efficiency standards for road passenger vehicles. Australia is the only OECD country without such standards.

Research by Hugh Saddler found a marked increase in CO_2 emissions from burning diesel (up 21.7Mt between 2011 and 2018). A 2015 Turnbull government initiative to phase in from 2020 to 2025 a standard of 105g of CO_2 per kilometre for light vehicles was "shelved after internal opposition and criticism from the automotive lobby".

At the same time, the uptake of electric vehicles is slow. Economist Ross Garnaut, in his 2019 book Superpower: Australia's Low-Carbon Opportunity, sums it up:

Australia is late in preparation for and investment in electric road transport.

Read more: Clean, green machines: the truth about electric vehicle emissions

Australia's low transport energy efficiency (and so high CO_2 emissions) has also attracted overseas attention. The American Council for an Energy-Efficient Economy rates the world's 25 largest energy users for sectors including transportation. In 2018, Australia slipped two places to 18th overall. It was 20th for transportation with just 6.5 points out of a possible 25 on nine criteria.

On four of these criteria, Australia scored zero: fuel economy of passenger vehicles, having no fuel-efficiency standards for passenger vehicles and heavy trucks, and having no smart freight programs.

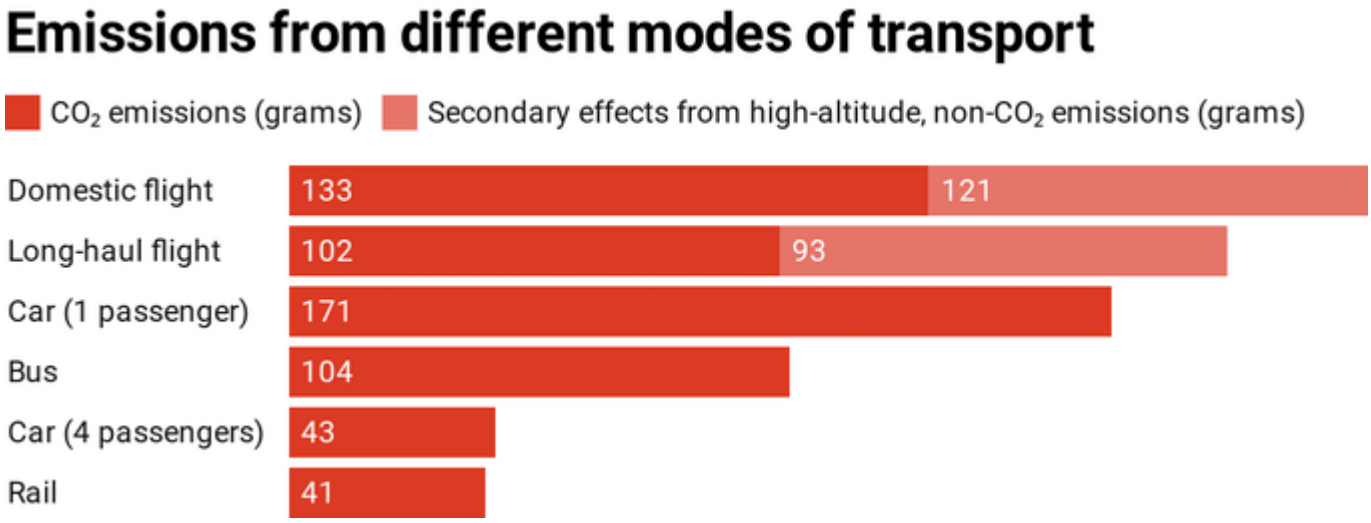
For vehicle travel per capita, the score was half a point. For three metrics – freight task per GDP, use of public transport, and investment in rail transit versus roads – Australia scored just one point each.

Only in one metric, energy intensity of freight transport, did Australia get full marks. This was a result of the very high energy efficiency of the iron ore railways in Western Australia's Pilbara region.

The International Monetary Fund (IMF) has also questioned the Australian government's preference for funding roads rather than more energy-efficient rail transport. The IMF says Australia should be spending more on infrastructure, but this should be on rail, airports and seaports, rather than roads.

What can be done

The first thing is to acknowledge that our preferred passenger transport modes of cars and planes cause more emissions than trains, buses, cycling and walking. For example, CO_2 emissions per passenger km can be 171 grams for a passenger car as against 41g for domestic rail.



Data source: Greenhouse gas reporting: conversion factors 2019

For freight, our high dependence on trucks rather than rail or sea freight increases emissions by a factor of three.

Read more:** **Labor's plan for transport emissions is long on ambition but short on details

A 1996 report, Transport and Greenhouse, from what is now the federal Bureau of Infrastructure, Transport and Regional Economics (BITRE), reviewed no fewer than 16 measures (including five "no regrets" measures) to cut transport emissions. In a 2002 report, Greenhouse Policy Options for Transport, BITRE offered 11 measures to reduce vehicle kilometres travelled (VKT), nine measures to reduce emissions per VKT, and four road-pricing measures (mass-distance charges for heavy trucks, tolls, internalising transport externalities and emission charging).

BITRE last appeared to revisit this important issue in a 2009 report on transport emission projections to 2020. This report projected a total of 103.87Mt CO_2-e for 2019. Actual 2019 transport emissions will be about 102Mt. It's important to note that BITRE's 2009 projection was on a business-as-usual basis. The current level of about 4 tonnes a year per person is where Australia was in 2000.

Clearly, Australia needs to do better. As well as the BITRE remedies, another remedy would be to adopt a 2002 National Action Plan approved by the Australian Transport Council in collaboration with the Commonwealth, state and territory governments. The plan included, within ten years, "programs that encourage people to take fewer trips by car" and a shift "from predominantly fixed to predominantly variable costs" to "ensure that transport users experience more of the true cost of their travel choices". This did not proceed.

However, New Zealand has effectively adopted this approach for many years. Petrol excise is now 66.524 cents per litre (just 42.3c/l in Australia) and the revenue goes to the National Land Transport Fund for roads and alternatives to roads, resulting also in lower registration fees for cars. New Zealand has had mass distance pricing for heavy trucks for 40 years. These measures have not stopped its economy performing well.

Why do measures that would reduce transport emissions continue to be so elusive in Australia?

APPENDIX B *Summary of Submission regarding Repeal of the Carbon Tax*

This submission is a general one (14 pages with references and appendices) supporting retention of a price per tonne on carbon dioxide emissions in some form with the inclusion of petrol and diesel in such pricing. It is based on research conducted at the University of Wollongong, but does not necessarily reflect the views of the University.

1. As demonstrated by changing weather patterns and recent reports, there is good reason for ongoing concern about climate change. Earlier concern within Australia about global warming is also reflected by scientific reports, legislation at a State level, and, the decision of the Australian Government to ratify the Kyoto protocol in December 2007.

2. Carbon pricing is not a new concept for Australia and has been subject to earlier inquiries and debate in Parliament from at least 2007. Carbon pricing concepts have also attracted opposition, some of it on grounds difficult to understand. It is submitted that some form of carbon pricing should remain, either by way of a tax (which can be used to generate funds for much needed infrastructure and investment into 'direct action'), or, an Emissions Trading Scheme. In this regard, the outgoing Howard Government in 2007 favoured an Emissions Trading Scheme and in October 2013 OECD secretary general Mr Angel Gurria stated there was "strong consensus" that carbon pricing - either through a tax or emissions trading scheme (ETS) - should be at the cornerstone of all global efforts to tackle climate change.

3. It is submitted that more disclosure of timely information on energy use, by both government and listed corporations would be in the national interest. An ongoing price on carbon would assist both government and industry to gather and release this information.

4. More effort in research and development in reducing energy use is required. There is a case for establishment of a federal Energy and Greenhouse Research Corporation as a "complementary measure" to assist in improvement in energy efficiency.

5. New Zealand ratified the Kyoto protocol in 2002, and in 2008, legislation was introduced by the Clark government to introduce an Emissions Trading Scheme, and this was amended in 2009 by the National Government led by Prime Minister Key. On 1 July 2010, the stationary energy, industrial processes and liquid fossil fuel sectors entered into the scheme, where a transition period operated until 31 December 2012. Australia's Trans Tasman neighbours have taken a bipartisan approach to putting some price on carbon. It is submitted that it is in Australia's medium and long term interests to do the same.

Comment on oil use and transport

6 and 7. Some ten years ago, international oil prices were trending upwards causing some pain, particularly in people living in outer suburban areas poorly served by public transport. As the 2007 Prime Ministerial (Howard Government) Task Group on Emissions Trading issues paper noted, inter alia, in 'Context setting': *"Significant effort will also be needed to restrain emissions in other sectors, especially transport."*

One move that would help would be to implement the recommendations of the 2010 Henry Tax Review for transport. Note that in 2008, the Garnaut climate change review observed *that "Governments have a major role in lowering the economic costs of adjustment to higher oil prices, an emissions price and population growth, …"*

8. In August 1978, Australia introduced import parity pricing for all Australian-produced crude oil. This was not a popular move at the time, but in hindsight was a good decision. The Prime Minister of the day, Mr Fraser, made it clear that import parity pricing was being introduced in response to a changing world situation and to meet needs including energy conservation. As a result combined unexpectedly high savings from road and rail freight about 200 million litres of diesel per year were realised.

9. In the year 2000, conditional rebates were given to diesel use and in early 2001, the Federal government reduced fuel excise and froze indexation. Since March 2001, petrol excise has remained at 38.143 cents per litre. The ongoing freezing of fuel indexation is in contrast to escalating road spending. A case for raising fuel excise by about 10 cents a litre has been made elsewhere by this writer, and independently by the Bus Industry Confederation (2012) *Moving People: Solutions for a Livable Australia.* As well, more investment is needed to improve rail in Australia.

11. There is a good case that road freight should be included in any carbon pricing. There is also a case that social and environmental external costs be recovered from road, rail and air freight.

12 and 13. As per a 2007 House of Representatives Standing Committee on Transport and Regional Services report, *The Great Freight Task: Is Australia's transport network up to the challenge?* there is a need to bring the existing rail track linking Australia's three largest cities "up to speed" and "fit for purpose", plus rehabilitate branch lines. There is also a case for completion of an inland railway between Melbourne, Parkes and Brisbane. Attention is drawn to the 2002 National Strategy for Lowering Emissions from Urban Traffic and a National Action Plan of the Australian Transport Council.

14. The Organisation for Economic Co-operation and Development in its 2004 Annual Report noted (p48) the need for government to avoid '***Environmental harmful subsidies'*** that exacerbate adverse environmental impacts; also (page 51) that *governments can use taxes to encourage their citizens to take better care of their environment*.

15. to 18. addresses three questions:

a) Whether all transport activity should be subject to a carbon tax?
b) Whether particular transport activities, including road and rail are subsidized, and if so should these subsidies be reduced ?

c) Whether existing transport infrastructure could be improved to reduce both oil use and greenhouse gas emissions ?

19. Looks at examples of reducing emissions in California and Canada.

20. Concludes that there is a case for retaining a carbon tax or an emissions trading scheme, and for the proceeds of carbon taxation of rail and urban public transport to go to projects that will reduce greenhouse gas emissions from urban transport and improved rail freight and passenger operations.