

A Health Submission on the Consultation Paper for the National Electric Vehicle Strategy

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1 Introduction- the health benefits of transition

In addition to the aim of reducing in greenhouse emissions to urgently meet national targets, the rapid transition to EV transport will deliver multiple benefits in the economy, health and in the planning for more healthy lifestyles.

This submission details these many health benefits and adopts a health in all policies approach, which brings transport and health policy together to detail the health benefits of transition and to indicate how they can be used to promote it.

There could be significant financial relief to health services and this is explained in section 6 of the submission

It is noted that the Consultation Paper for the National Electric Vehicle Strategy states https://storage.googleapis.com/converlens-au-industry/industry/p/prj21fdd5bb6514260f47fcd/public_assets/National-Electric-Vehicle-Strategy-Consultation-Paper.pdf

1.2 "The Opportunity"

"Australia will also gain social, health and environmental benefits. These include industry growth; less air quality related health costs, less noise and reduced emissions".

"For our health and environment, greater adoption of EVs can reduce air pollution. Air pollution due to vehicle emissions may cause more deaths than the national road toll. It is also linked to health conditions including respiratory disease, cancer and dementia".

Also in 1.4

"The Strategy aims to provide social, economic, business, health and environmental benefits. This will make sure we capture opportunities and have an orderly transition to electrification"

These statements are most welcome, for deaths and illness caused by vehicular air pollution have been ignored by federal governments for decades by failure to improve air quality standards. Nevertheless the magnitude of the ill health needs to be recognised and how it can be used to facilitate transition.

As a parallel health issue, fuel efficiency standards (sometimes called vehicle CO2 standards, fuel economy standards or CO2 emissions standards) which regulate the average CO2 emissions from a vehicle fleet need urgent improvement. <https://australiainstitute.org.au/wp-content/uploads/2022/08/P1269-Fuel-Efficiency-Standards-WEB.pdf> Their absence makes Australia a low priority for vehicular manufacture and this in turn will delay reduction in greenhouse emissions.

Australia also has inadequate noxious emissions standards which are set lower than in most comparable countries. Their improvement could also reduce air pollution and result in health benefits.

2 Human health and vehicular air pollution

There is conclusive research that long-term exposure to air pollution in Australia leads to 2,500 -3000 premature deaths and illnesses and costs Australians \$6 to 24 billion p.a. depending on which costs are included. Health benefits are achievable proportional to the degree of pollution reduction. The diseases and deaths from air pollution are greatest in regions of Australia with coal fired power stations; these are being abolished in many states and in most of our cities air pollution is vehicular, except during bushfires and prescribed burns.

3 Causes of disease and death

The diseases caused are serious and costly. Air pollution is a significant risk factor for many lung diseases including asthma, and for heart diseases and heart attacks, stroke, cancer and diabetes. In children, air pollution is associated with asthma and poor lung development. Air pollution may also play a problem in neuro-developmental disorders in children and neuro-degenerative diseases in adults. Recent studies from the UK show a likely link between air pollution and a decline in mental ability and dementia in older people. Numerous studies indicate that those living near to roads suffer more cognitive decline and dementia than those living more than 300m away. <https://www.lung.org/clean-air/outdoors/who-is-at-risk/highways> Since dementia is now a leading cause of death and hospital care in Australia, this finding will greatly increase the cost of our toleration of air pollution <https://www.gov.uk/government/publications/air-pollution-cognitive-decline-and-dementia>

A most serious impact of air pollution is on the brain and respiratory-system development of the unborn baby <https://www.the-scientist.com/news-opinion/pregnant-moms-air-pollution-exposure-may-affect-babies-health-66467> The link between premature birth and air pollution has been known for some time, but reports of a dramatic drop in pre-term births during the Covid-19 pandemic have led some researchers to speculate that reduced exposure to air pollution may play a part. Pre-term birth and low birth weight can have lifelong adverse health consequences. Evidence even suggests that exposure to air pollution can cause DNA changes that can then be passed on to future generations. <https://www.croakey.org/fuels-paradise-the-health-impact-of-australias-poor-fuel-quality-standards/>

There is no safe level of air pollution. A study from Canada which already has levels of air pollution well below national and international air quality guidelines shows an increased risk of death from pollution. <https://www.miragenews.com/even-low-levels-of-air-pollution-contribute-to-819456/>

The health improvements that will result from the transition to EVs are further discussed in this article <https://independentaustralia.net/politics/politics-display/electric-vehicle-transition-has-huge-health-benefits,16908>

4 Diesel and Disease

As many as a quarter of motor vehicles run on diesel. Their exhaust contains higher amounts of fine particulates and NOx than petrol engines. The World Health Organisation and the International Agency for Research on Cancer (IARC) lists diesel as a Class 1 carcinogen with increasing risk of cancer, particularly of the lung. Consequently, diesel vehicles are banned in some major cities in Europe.

It is vital that the Strategy provides every possible financial and legislative measure to enhance the transition from diesel vehicles in cities. For a doctor it is a horror movie to see a diesel vehicle belch its exhaust into the environment of patrons sitting on the pavements outside coffee shops.

5 Widening the Strategy for Health Department input

A major impediment to a coordinated approach to the closely interrelated problem of health and transport is the existence of government departments as enclosed silos or ministries. As society becomes increasingly more complex so does the needed interaction between silos.

In 2007 South Australia to its credit sought to address this problem with a [South Australian Health in All Policies \(SA HiAP\)](#) approach intended to stimulate cross-sector policy activity to address the social determinants of health to improve population wellbeing and reduce health inequities.

By 2017 it was found that some support existed for progressing an equity agenda through SA HiAP, but subsequent economic pressures resulted in the government narrowing its priorities to economic goals. Today these goals continue to be prioritised.

Indeed the SA Legislative Council Select Committee inquiry into Public and Active Transport <https://www.parliament.sa.gov.au/Search/Result?type=committee&id=405> recently completed its deliberations without including the health aspects listed in the terms of reference.

It is concluded that the working committee which will be needed to deliver the National Strategy must include strong health representation.

6 Impacts on the National Health Services

Our health services are under tremendous stress and they were so to some degree even before Covid-19. Governments do not yet recognise that this situation will not improve and will likely get worse. A plethora of scientific papers explains why an increasing number of epidemics will occur with increasing climate change and the deterioration of the natural environment. Stress and mental illness are surging as a result of rapidly changing social conditions and the growing aged care and disability sectors are already overworked and under-cared for.

Health care workers ask our governments why not prevent many of the diseases causing work for general practice and hospitals? Epidemiological studies indicate how many deaths and illnesses occur from vehicle pollution and stress all sections of the health services from premature birth, childhood asthma, stroke, diabetes, heart and lung disease in adults, and dementia in aged care. The costs can be assessed using recognised criteria. It will be prodigious. The use of full cost accounting will indicate savings to health services which could be used both to alleviate services and also to drive the transition.

It is noted that some countries such as Norway are 74% along their journey to transition. The U.S. plans a 50% transition within a decade whereas Australia with 2% to date is only just embarking on its National Electric Vehicle Strategy. There is a strong case for driving the transition for example, this week the European Union has decided to ban the sale of new petrol and diesel cars from 2035, to speed up their transition to electric vehicles. <https://www.abc.net.au/news/2022-10-29/eu-ban-new-fossil-fuel-cars-boost-ev-uptake/101593696>

The present government should learn from the failures of previous governments and use public health measures to effect change, it has been almost a form of reverence to allow people the right to harm themselves. It is reflected in the funding of preventative medicine and reflects a failure of understanding by successive health departments

Currently Australia we have a health service which is in fact a 'disease service' and costs more than \$100 billion a year, and a "health service", called Public Health, which receives a pittance of \$2 billion to prevent disease.

As indicated by the Public Health Association of Australia, we have one of the lowest rates of preventive health spending of any OECD nation. Investment in preventive health was less than 2% of health expenditure for at least the past ten years and only 1.5% in 2018-19 and in 2019-20. Canada, New Zealand and the United Kingdom – nations with comparable health systems to Australia's in many ways – are around 5% of total health spending.

A 2035 mandate for no new petrol or diesel vehicle sales could be driven by strong financial incentives for EVs. Educational campaigns must be employed. Additional measures for States and Territories to drive the transition according to their own circumstances must be considered..

7 The aged care, rehabilitation and disability sectors

These will need special attention for transition as they use a range of specially adapted patient transport vehicles for a wide range of purposes. They will need financial help for transition and the Strategy Implementation committee will need to investigate manufacturing sources. It is appropriate to investigate the experience of Norway and other countries which have already experienced the transition.

8 Health and climate change

The Strategy forms part of Australia's commitment to reduce emissions by 43% by 2030 and reach net zero by 2050.

Indeed at a time when a spate of new coal and gas mines are being planned around the world and in Australia, and when science tells us time is now short to avoid climate tipping points, rational society must aim to urgently reduce greenhouse emissions where it can.

We have to face the fact that human endeavours to reduced greenhouse emissions are currently far short of those necessary to keep the world's rise in temperature to 1.5 degrees C and many pledges given last year at COP 26 are not being honoured. It is likely that 1.5C will be exceeded before 2030 and temperature rises of 2-3C degrees are likely this century. The opinion of WHO and medical organisations must be recognised – that climate change is the greatest health threat this century.

The Australian community already recognises the deaths, injuries, social and economic harm resulting from climate change and many will recognise their need to play a part in this transition.

Currently, however, it is the air pollution and not the greenhouse emissions that present the greatest ongoing threat to the community and for this reason the reduction in air pollution impacts are placed before climate change in this submission.

9 Environment and urban planning and a blueprint for states

This offers yet another necessary movement beyond the considerations of the current strategy.

There is a need to consider the introduction of EVs as the catalyst to entirely new thinking on planning roads, suburbs, and the creation of green cities, with Australia lagging behind many other developed nations. Consideration of free public transport to facilitate the green city concept must be considered. Such planning considerations have huge health implications. This is a unique opportunity to plan healthy lifestyles. The EV transition should be the catalyst for a Green City concept with requirements for green space. [Green space in a community](#), for children to play, dogs to be walked and the old to sit, free of the noise, pollution and physical dangers of transport confers immense lifetime health benefits.

It will be important to have planning expertise participate in the delivery of the Strategy and offer thoughts and strategies for states.

10 Government promotion of the transition

The health perspectives of the EV transition offer important initiatives for government to encourage the community to participate in the transition by offering health and community benefit for all. Let us have a vision of life in greener more psychologically pleasing lifestyle.

Conclusions and Recommendations

Transition to EV transport will deliver multiple benefits in the economy, health and planning for more healthy lifestyles which are the subject of this submission.

1. The transition to EVs must be recognised and delivered as a quick and crucial means of reducing Australia's greenhouse emissions to enable the 2030 target to be met.
2. To facilitate the transition, fuel quality standards and noxious emissions standards must be quickly and greatly improved.
3. The radical improvement in these standards will also improve air quality standards and this must be taken as an opportunity to improve the latter even further in a concerted national initiative to reduce air pollution. There is no safe level of air pollution.
4. All actions to hasten the transition must recognise the huge health benefits for current air pollution costs many lives, much illness and imposes huge costs and services on an already stressed health service. The economic benefit of transition should be recognised on cost benefit analysis and used to provide significant financial incentives for EVs. In particular mandated transition could run with large financial incentives.
5. Public health advice should be included in the management of the transition and in addition the transition should be considered in a Health in all Policies approach and embrace planning and environmental concerns as well as health.
6. Special funding should be provided to the financially distressed aged care and disability sectors to transition their complex vehicles.
7. There should be separate significant financial incentives to replace diesel vehicles because of their particularly harmful emissions which include carcinogens.
8. Guidance on the transition should be provided to all states so they are aware of incentives and methods of planning initiatives, and there should be national educative initiatives for members of the Community to help this national greenhouse emission and air pollution initiative.
9. The transition should be encouraged to deliver an impetus for the green city concept using free public transport, reducing city roads for vehicles and ensuring more green space which confers life time health benefits.

The issues discussed in this submission have been developed in a Submission from the Conservation Council of SA (Conservation SA) to: The SA Legislative Council Select Committee inquiry into Public and Active Transport <https://www.parliament.sa.gov.au/Search/Result?type=committee&id=405>

The SA submission is at

<https://static1.squarespace.com/static/6035c9d62d099d4f3b8d7db4/t/63226a255e79fa6aeefd1d33/1663199782486/80-Conservation-Council-SA.pdf>

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