

COAG Reform Fund Amendment (No Electric Vehicle Taxes) Bill 2020:
Senate Economics Legislation Committee Inquiry Submission

3 March 2021

Dear Committee Secretariat,

Thank you for the opportunity to make a submission to the inquiry into the COAG Reform Fund Amendment (No Electric Vehicle Taxes) Bill 2020 (the 'Bill'). I am happy for this submission to be made public at the Committee's website, and would be available to attend an Inquiry hearing if requested.

Summary

1. Australia imports approximately \$38 billion of petroleum and refined petroleum products each year as a recurrent expense.
2. Net of rebates, Fuel Excise and other taxes on fuels raise roughly \$11.6 billion per annum.
3. Replacing Australia's petroleum-using transport fleet with electrified transport would obviate the need for that \$38 billion recurrent expense, although in the process this forgoes the raising of \$11.6 billion in Fuel Excise and any other taxes on fuel.
4. The electrification of Australia's transport fleet would increase demand for (domestically-generated) electricity, including extending operations at Australian coal mines and coal-fired power stations, so that foregone Fuel Excise receipts could be replaced at least in part with increased tax receipts from the power generation sector.
5. There is therefore no justification for imposing any Electric Vehicle Road User Charge.
6. In general I support the intent of the Bill; that is, "to prevent the States erecting road blocks (sic) to the uptake of electric vehicles (EVs)."

Detailed Discussion

I ('the writer') am an Australian citizen and Queensland resident who has been interested in matters around climate science and climate change, and appropriate technological and institutional responses to said climate change.

I understand roughly \$11.6 billion (net of rebates for off-road use) is raised in Australia each year from fuel taxes, and spends \$26.2 billion on road construction and maintenance¹. I also understand that State governments in Victoria and South Australia have suggested imposition of road usage charges for Electric Vehicle with a usage charge rate of 2.5 c/km²; the Bill has been introduced to the Federal Parliament in response to the suggestions from Victoria and South Australia.

Australian Fuel Excise is presently charged at about 42.3 c/L which, at an Australian average passenger vehicle fuel consumption rate of 10.8 L/100 km would be

¹ <https://www.ptua.org.au/myths/petroltax/>

² <https://www.theguardian.com/environment/2020/dec/09/australian-states-were-warned-road-user-tax-on-electric-vehicles-could-discourage-uptake>

matched by a road usage charge of 4.5c/km. At the proposed road usage charge rate of 2.5 c/km is actually higher than paying Fuel Excise with a petrol-burning car with non-zero fuel consumption of less than 6 litres of petrol (or diesel fuel) per 100 km; in this age when we know we need to phase out all fossil fuel use as rapidly as possible, I shall leave it to the committee to find an adjective for whatever thinking lead to this proposed Electric Vehicle Road Usage Charge.

Supplying fuel to power its transport fleet obliges Australia to import roughly \$38 billion of refined petroleum fuels and crude oil (in 2018-19³ when there were still four oil refineries in Australia, \$25.1 billion of refined fuels were imported and \$13.4 billion of crude oil to be refined here; refineries at Kwinana and Altona have either recently been or are about to be shut.

If all Australia's transport fleet was electric (either battery or hydrogen fuel cell) then Australia would not be importing any petroleum at all, instead relying on Australian-generated electricity and Australian-produced hydrogen – which leads to the realisation that any shortfall in Fuel Excise receipts should be offset by increased Company Tax receipts from power suppliers.

In addition, the Australian economy would be avoiding the recurrent expenditure of \$38 billion each year by not needing to import fuels, which is \$1,500 per annum per capita for Australian residents. Given this, it is clear that an Electric Vehicle Road Usage charge would be a counter-productive step.

In general I support the intent of the Bill as expressed in the Policy Rationale⁴, which is “to prevent the States erecting road blocks (sic) to the uptake of electric vehicles (EVs).”

“This Bill seeks to neutralise the revenue effect of States and Territories that legislate discriminatory taxes or charges against the purchase and use of electric vehicles. The Bill will also financially reward States and Territories that don't place such road blocks to electric vehicle uptake by redistributing the money withheld from non-complying States and Territories.”

I propose that this so-called “financial rewarding of States and territories that don't place such road blocks ...” be tied to provision in such states of charging stations for battery electric vehicles and/or hydrogen refilling stations for hydrogen fuel cell-electric vehicles.

General Remarks on Transport Electrification

The claim that if electrified transport is powered from coal-fired generation then total emissions are no lower than petroleum-powered transport is false; a 2019 [study](#) that electric vehicles emit less carbon emissions than internal combustion engine (ICE)

³ <https://www.dfat.gov.au/sites/default/files/cot-2018-19.pdf>

⁴ COAG Reform Fund Amendment (No Electric Vehicle Taxes) Bill 2020 Policy Rationale, https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22legislation%2Fems%2Fs1287_ems_c8b0ce3a-01f8-426d-af86-610817580b21%22

vehicles *even when charged off a largely coal-powered grid.* ⁵

It is the author's view that within two decades Australian road transport will cease to be powered by petroleum products, be they imported or domestically produced. By no means will Australia be the only jurisdiction to make this change; deadlines have already been announced for the banning of new combustion-powered vehicles in some jurisdictions; the sale of such vehicles will be banned in Britain from 2030, in Norway the ban will take effect from 2025 and similar bans in California and Quebec similar bans will commence in 2035 ⁶.

Major vehicle manufacturers are following suit; General Motors has announced its "aspiration to eliminate tailpipe emissions from new light-duty vehicles by 2035"⁷, and Ford plans to produce only hybrid and electric vehicles in Europe after 2026⁸, for example.

In China the move to electrification is in part motivated by air pollution concerns, in part by a desire to end dependence on petroleum imports and in part by an intention to dominate world markets, with the result that there are already 2.3 million electric vehicles in use in China, about 45% of the global total ⁹. Even US electric vehicle manufacturer Tesla has opened vehicle manufacturing facilities in China, although it faces stiff competition; a new Chinese-developed "all-electric car that is tiny in both size and price has again outsold the Tesla Model 3 in China on a month-by-month basis, with sales of the Wuling Hong Guang Mini EV almost doubling those of Tesla's hugely popular global best-seller in January 2021" ¹⁰.

Given the above, I see little need for any retaliatory action against any jurisdiction that imposes any "discriminatory charge against electric vehicles"; the counter-productive stupidity of imposing such charge is burden enough for decision-makers.

Thank you for considering my submission.

Yours sincerely,

David Arthur

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⁵ Cornell, Ryan. 2019. "The Climate Change Mitigation Potential of Electric Vehicles as a Function of Renewable Energy." *The International Journal of Climate Change: Impacts and Responses* 11 (1): 15-24. doi:10.18848/1835-7156/CGP/v11i01/15-24.

⁶ "Fossil fuel-based vehicle bans across the world", Reuters, 18 November 2020, <https://www.reuters.com/article/climate-change-britain-factbox/fossil-fuel-based-vehicle-bans-across-the-world-idINKBN27Y19F>

⁷ <https://www.forbes.com/wheels/news/gm-phase-out-gas-diesel-cars-2035/>

⁸ <https://www.caradvice.com.au/926038/ford-to-go-all-electric-in-europe-by-2030-german-built-electric-vehicle-due-in-2023/>

⁹ <https://www.virta.global/global-electric-vehicle-market>

¹⁰ <https://thedriven.io/2021/02/26/tiny-new-electric-car-beats-tesla-model-3-again-in-china/>