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Senate Standing Committees on Economics
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RAC Response to the Senate Standing Committee on Economics' *COAG Reform Fund Amendment (No Electric Vehicle Taxes) Bill 2020* Inquiry

Thank you for the opportunity to provide a submission to the Senate Standing Committee on Economics' *COAG Reform Fund Amendment (No Electric Vehicle Taxes) Bill 2020* Inquiry (Inquiry).

RAC believes electric vehicles (EVs) – both pure battery electric vehicles (BEV) and plug-in hybrid electric vehicles (PHEV) have a role to play in reducing emissions from vehicles in Australia and globally, and we welcome the opportunity to provide this submission on behalf of our more than 1.1 million members.

About RAC

RAC is a purpose-led member organisation and since our foundation more than 115 years ago, RAC has existed to be a driving force for a Better WA. We work collaboratively with government, industry, our members and all Western Australians to champion change that will deliver safer, sustainable and connected communities.

RAC's social and community impact activities seek to:

- reduce the number of people being killed or seriously injured on our roads;
- lower vehicle emissions for cleaner, healthier air; and
- ensure well-planned communities and transport that better connect people and places.

As part of our commitment to the reduction of vehicle emissions, RAC launched the Less Emissions Mission in 2012 to encourage members to reduce their carbon footprint by rewarding owners of qualifying lower CO₂ emissions vehicles with access to discounted finance, lower insurance premiums, free membership upgrades and discounted vehicle servicing. In 2015, RAC funded, designed, and constructed the RAC Electric Highway®, the first of its kind in Australia. The RAC Electric Highway® is a network of 12 publicly accessible EV fast and ultra-rapid¹ charging stations located between Perth and Augusta, a distance of 520 kilometres.

¹ Ultra-rapid EV chargers installed through a partnership between RAC and Chargefox and are powered by 100% renewable energy.

Vehicle emissions in Australia

As part of a global response to climate change; the Australian Government has committed to reduce the nation's greenhouse gas emissions by 26 to 28 per cent below 2005 levels by 2030².

The transport sector in Australia is responsible for more than one quarter (26.3 per cent) of all carbon dioxide (CO₂) produced in Australia and 19 per cent of all greenhouse gas emissions. Cars and light commercial vehicles alone contribute 17 per cent of total CO₂ emissions and 12 per cent of total greenhouse gases produced in Australia each year³.

Vehicles also produce several harmful emissions while driving, including oxides of nitrogen (NO_x), which directly impact human health and contribute to the formation of other harmful pollutants. The Australian Government estimates that, nationally, motor vehicles could contribute as much as 60-70 per cent of total NO_x emissions⁴.

In 2015, 2,566 deaths were attributable to air pollution in Australia⁵. The OECD confirms that while deaths from air pollution across Europe largely declined from 2005 to 2010, Australian deaths rose over the same period⁶. Further, air pollution in Australia is estimated to contribute to approximately 4.6 per cent of all cardiovascular disease, 1.6 per cent of all respiratory disease and 0.2 per cent of cancers⁷ and has a significant negative impact on our environment.

EVs are part of the solution

EVs (including BEVs, PHEVs and hydrogen fuel cell EVs⁸) use one or more electric motors for propulsion and are recharged by plugging in to an external power source. EVs that are charged by renewable energy sources can be almost entirely emissions free.

Globally, over 2.1 million new EVs were sold in 2019, increasing by approximately 90 per cent on 2017 sales figures⁹. In Australia, our 2019 EV sales were the highest on record increasing by 149 per cent from the previous year (5,875 vehicles) and leading to a total of 14,500 EVs on the road in Australia¹⁰. However, EVs are still under 0.1 per cent of total light vehicles in Australia¹¹, lagging well behind global uptake.

² Department of Environment and Energy, 2015, Australia's 2030 climate change target. Accessed at <http://www.environment.gov.au/system/files/resources/c42c11a8-4df7-4d4f-bf92-4f14735c9baa/files/factsheet-australias-2030-climate-change-target.pdf>.

³ Australian Greenhouse Gas Emissions Information System, 2020, National Greenhouse Gas Inventory – UNFCCC classifications. Accessed at <https://ageis.climatechange.gov.au/>.

⁴ Australian Government, 2016. Vehicle emissions standards for cleaner air, Draft Regulation Impact Statement December 2016. Accessed at https://www.infrastructure.gov.au/vehicles/environment/forum/files/Vehicle_NOxious_Emissions_RIS.pdf

⁵ Australian Government - Australian Institute of Health and Welfare, 2019, Australian Burden of Disease Study Impact and causes of illness and death in Australia 2015. Accessed at <https://www.aihw.gov.au/getmedia/c076f42f-61ea-4348-9c0a-d996353e838f/aihw-bod-22.pdf.aspx?inline=true>.

⁶ OECD, 2014, The Cost of Air Pollution: Health Impacts of road Transport, OECD Publishing. Accessed at http://www.keepeek.com/Digital-Asset-Management/oecd/environment/the-cost-of-air-pollution_9789264210448-en#page54.

⁷ Australian Government - Australian Institute of Health and Welfare, 2019, Australian Burden of Disease Study Impact and causes of illness and death in Australia 2015. Accessed at <https://www.aihw.gov.au/reports/burden-of-disease/burden-disease-study-illness-death-2015/summary>.

⁸ BEVs are wholly powered by electricity stored in the vehicle's batteries and produce zero tail pipe emissions; PHEVs use a combination of electricity and an on-board petrol or diesel fuelled internal combustion engine and produce tailpipe emissions only when the latter is engaged; and hydrogen fuel cell electric vehicles convert hydrogen to electricity to power the vehicles engine, emitting only heat and water as by-products.

⁹ Bloomberg NEF, 2020, Electric Vehicle Outlook 2020. Accessed at <https://about.bnef.com/electric-vehicle-outlook/>.

¹⁰ National Transport Commission, 2020, Carbon Dioxide Emissions Intensity for New Australian Light Vehicles 2019, June 2020. Accessed at <https://www.ntc.gov.au/sites/default/files/assets/files/Carbon-dioxide-emissions-intensity-for-new-Australian-light-vehicles-2019.pdf>.

¹¹ National Transport Commission, 2020, Carbon Dioxide Emissions Intensity for New Australian Light Vehicles 2019, June 2020. Accessed at <https://www.ntc.gov.au/sites/default/files/assets/files/Carbon-dioxide-emissions-intensity-for-new-Australian-light-vehicles-2019.pdf>.

Internationally, government policy decisions are making an impact, and the countries that provide fiscal incentives for EVs are realising the greatest levels of EV uptake. Currently, EVs still have a price differential with a comparable ICE, predominantly due to the cost of batteries. Monetary incentives such as subsidies, seek to, at a minimum, at least partially offset this difference. Countries such as Norway have provided significant EV incentives for the longest period, as a result, new EV sales are consistently more than 50 per cent of all new light vehicles sold (since 2018)^{12,13}. More than 90 per cent of car markets around the globe (in terms of vehicle sales) and over 50 countries have incentives to increase EV uptake in place¹⁴. There are several different subsidy applications globally, which intend to create price parity and, in some countries, a price advantage between EVs and ICE and diesel engines. These subsidies or incentives vary by jurisdiction however are mainly characterised by:

- tax and / or fee exemptions;
- rebates and / or subsidies; and
- tax breaks.

Further, to date, 17 countries have announced bans on sales of ICE vehicles, beginning with Norway commencing in 2025 and India and other European nations commencing between 2030 and 2040.

Now, more than ever, is an opportune time to support moves to increase uptake of low and zero emission vehicles, particularly when consumer awareness and interest in environmental issues is growing and choice within the new vehicle sales market is increasing. It has been forecast that EVs could account for 70 per cent of new vehicle sales and 30 per cent of the total vehicle fleet in Australia by 2040¹⁵. However, action will be required to accelerate and increase uptake and so reduce the impact of vehicle emissions on our health and the environment. A RAC member survey¹⁶ in 2020 has shown that while 56 per cent of new car owners considered vehicle exhaust emissions very or extremely important when considering purchase of a new vehicle, even more prioritised purchase price (79 per cent) and ongoing costs (72 per cent). And when it comes to low and zero emission vehicles specifically, another recent RAC member survey¹⁷ found 25 per cent thought they would be likely to consider a hybrid next time they were in the market for a new vehicle and an additional 19 per cent an EV. The high cost of purchase (57 per cent) was the top cited barrier to considering purchasing an EV or hybrid.

Recently, some jurisdictions in Australia (South Australia, Victoria and New South Wales) have indicated they may implement stand-alone road user charges specifically on EVs. There has been commentary^{18,19} that these taxes are being proposed due to EV impacts on future fuel excise revenue. Fuel excise revenue in Australia has been declining since the early 2000s, largely as a consequence of

¹² Norsk elbilforening, Norwegian EV policy. Accessed at <https://elbil.no/english/norwegian-ev-policy/>.

¹³ Norsk elbilforening, Norwegian EV market. Accessed at <https://elbil.no/english/norwegian-ev-market/>.

¹⁴ International energy agency, 2020, Electric Vehicles. Accessed at <https://www.iea.org/reports/electric-vehicles#tracking-progress>.

¹⁵ Bloomberg NEF, 2020, Electric Vehicle Outlook 2020. Accessed at <https://about.bnef.com/electric-vehicle-outlook/>.

¹⁶ RAC survey on vehicle safety, with 369 respondents from the Perth and Peel region and 99 from regional WA. Age, gender and location sampling quotas were applied, and data has been post-weighted to be representative of RAC's membership (which is broadly consistent with the WA population profile). – the margin of error at total sample level is +/- 4.5% at the 95% confidence level. 196 new car owners answered the question: How important are the following factors to you when considering buying a new vehicle?

¹⁷ RAC survey on environmental sustainability, with 358 from the Perth and Peel region, 123 from regional WA and 6 outside of Western Australia. Age, gender and location sampling quotas were applied, and data has been post-weighted to be representative of RAC's membership (which is broadly consistent with the WA population profile) – the margin of error at total sample level is +/-5% at the 95% confidence level.

¹⁸ Vic Roads, 2020, ZLEV Road-user charge. Accessed at <https://www.vicroads.vic.gov.au/registration/registration-fees/zlev-road-user-charge>.

¹⁹ ABC news, 2020, South Australia to become first State to introduce electric vehicle user charge, 11 November 2020. Accessed at <https://www.abc.net.au/news/2020-11-11/sa-to-introduce-electric-vehicle-user-charge/12869302>.

increasing fuel efficiency across the Australian vehicle fleet²⁰. In 2000, the average new car consumed approximately 8.1 litres per 100 kilometres travelled (l/100km), and total light vehicles consumed approximately the same average of 8.9l/100km²¹. By 2013, for cars this decreased by 25 per cent to approximately 6.1l/100km and for all light vehicles this decreased by 18 per cent to approximately 7.3l/100km²².

Very few jurisdictions around the world have introduced charges targeting EV drivers, and those that have, have coupled this with other broader changes to road user charges and incentives. California (with its advanced EV market of approximately eight per cent new cars in 2020 and two per cent of all vehicles in the State²³), implemented a charge on EVs (a flat fee of up US\$175 per year) alongside increasing charges for other road users. Importantly, their EV charges are also more than offset by upfront subsidies²⁴. In response to the imposition of the EV registration tax, the University of California Institute of Transport determined the tax would decrease market adoption by as much as 20 per cent²⁵.

Australia lacks a regulatory environment that encourages the uptake of EVs. As the only developed nation without a CO₂ emissions standard, Australia has also observed Euro 5 equivalent noxious vehicle standards since 2013 – without any further progress (the European Commission is currently proposing the adoption of Euro 7 having introduced Euro 6 more than a decade ago). Emissions standards are a key policy lever to influence the reduction of vehicle emissions and increase in EV uptake, through ensuring manufacturers provide low and zero emissions vehicles to the market.

Further, neither the recently released Future Fuels Strategy Discussion Paper nor the State Electric Vehicle Strategy for Western Australia consider effective policy levers being used elsewhere such as direct incentives and subsidies, or targets for EV's within Australia's vehicle fleet.

In the absence of a conducive regulatory environment and without many meaningful incentives to increase EV uptake, the impact of a standalone EV tax would likely be significantly more stifling on EV uptake and emissions reductions in Australia.

Where we stand

RAC broadly supports the *COAG Reform Fund Amendment (No Electric Vehicle Taxes) Bill 2020's* general intention of deterring State governments from introducing State-based road user charges which could act as a road block to the uptake of EVs.

A State-based, piecemeal approach will not provide a solution to the projected decline in fuel excise revenue and risks further complicating the progression of national reform of road user charging in Australia. This said, consistent with the AAA's submissions, we do feel that progression of the Bill

²⁰ Australian Parliamentary Library, 2016, Parliamentary Library Briefing Book, Revenue from road use. Accessed at https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/BriefingBook45p/FundingRoads.

²¹ BITRE, 2009, Fuel consumption by new passenger vehicles in Australia 1979–2013. Accessed at https://www.bitre.gov.au/sites/default/files/is_066.pdf.

²² BITRE, 2009, Fuel consumption by new passenger vehicles in Australia 1979–2013. Accessed at https://www.bitre.gov.au/sites/default/files/is_066.pdf.

²³ State of California, 2021, New ZEV sales in California. Accessed at https://tableau.cnra.ca.gov/t/CNRA_CEC/views/DMVDataPortal_15986380698710/SALES_Dashboard?%3AshowAppBanner=false&%3Adisplay_count=n&%3AshowVizHome=n&%3Aorigin=viz_share_link&%3AisGuestRedirectFromVizportal=y&%3Aembed=y.

²⁴ Electrek, 2020, California starts charging EV registration fees up to \$175 in July, 10 July 2020. Accessed at <https://electrek.co/2020/07/10/california-starts-charging-ev-registration-fees-up-to-175-in-july/#:~:text=California%20starts%20charging%20EV%20registration%20fees%20up%20to%20%24175%20in%20July,-Bradley%20Berman&text=Starting%20this%20month%2C%20a%20one,based%20on%20the%20vehicle's%20value>.

²⁵ Jenn, A., 2018, Assessing Alternatives to California's Electric Vehicle Registration Fee A Research Report from the University of California Institute of Transportation Studies, December 2018. Accessed at: <https://escholarship.org/uc/item/62f72449>.

should be informed by parliamentary debate and a sound understanding of land transport funding reform which considers aspects such as: a pathway for broad reform of the nation's transport taxation and funding arrangements; and the medium and longer-term implications of the declining revenue base from fuel excise.

Outside of broader tax reform, RAC does not support the introduction of a new and additional tax targeting EV users in WA; the preferred approach is to incentivise uptake, particularly in the early stages while fleet penetration remains low. To respond to issues associated with declining fuel excise revenue and the need for a more equitable, efficient and effective funding model, RAC supports consultation on, and development of, a new road user charging model encompassing all vehicles and considering the holistic impacts of road use to replace the array of existing fees and charges used to generate revenue. This should occur only as part of a genuine national reform of taxation on road users and be informed by a rigorous cost-benefit analysis of all social, economic and environmental impacts. While not ideal, with some States already moving forward with their own schemes, it will be critical that any data and learnings be used to inform this broader reform.

Further, RAC supports the transition to cleaner transport and initiatives that increase EV ownership in Australia, such as:

- enabling wider roll out of charging infrastructure;
- the Australian Government working with States and Territories to implement incentives and subsidies, this should include developing a nationally consistent approach to level the playing field and reduce (or applying short term exemptions to) existing national and State-based taxes and charges for EVs such as level Luxury Car Tax, Goods and Services Tax, Fringe Benefits Tax treatments at the national level and vehicle registration fees, licence fees, and stamp duty at the State level;
- the Australian Government working with States and Territories to ensure the introduction of an impactful national CO₂ emission standards for new light vehicles (and Euro 6 or equivalent for noxious emissions); and
- the Australian Government working with States and Territories to deliver an effective rating system to ensure consumers have access to user-friendly emissions and fuel consumption information when purchasing a new vehicle.

RAC thanks the Senate Standing Committee on Economics for the opportunity to participate in the *COAG Reform Fund Amendment (No Electric Vehicle Taxes) Bill 2020* Inquiry. In support of our submission, we have also enclosed a [mobility bulletin](#) produced by RAC which discusses options and opportunities for government to support uptake of low and zero emissions vehicles in Australia. We trust RAC's response, which is based on providing Western Australians with higher levels of protection from harmful vehicle emissions, is helpful to the Senate Standing Committee.