RAC Federal Budget Submission 2025-26

Priorities for a safer, sustainable and connected WA

RAC
For the better

RAC is a voice for over 1.3 million Western Australians. Since our foundation in 1905, RAC has existed to be a driving force for a better WA by championing change that will create a safer, sustainable and connected Western Australia.

Purpose

The driving force for a better WA.

Vision

2030: A safer, sustainable and connected future for Western Australians.

Mission

Delivering great member services and experiences, while inspiring positive community change that makes life better in WA.

RAC Federal Budget Submission 2025-26

Priorities for a safer, sustainable, and connected WA

The 2025-26 Federal Budget is an opportunity to fund critically important programs and projects to save thousands of lives and serious injuries, reduce harmful vehicle emissions and better connect people. These initiatives will also create thousands of jobs and help safeguard WA's, and Australia's, productivity and liveability into the future.

RAC's four priorities for the 2025-26 Federal Budget are:

1. Investing in low-cost safety treatments on country roads, building on the success of the Regional Road Safety Program but with a broader focus that also addresses the local government road network.

2. Funding signage to enable local governments to implement safer speed limits at scale across their networks.

3. Expediting the delivery of cycling infrastructure and enhancing streets and places for active travel.

4. Scaling up electric vehicle charging infrastructure and extending financial support to accelerate the transition to sustainable vehicles.

Our key priorities

1. Low-cost safety treatments on country roads

The challenge:

- Over five years, more than 500 people have been killed and over 2,750 seriously injured on WA's regional roads[1].
- Regional WA has a fatality rate of 13.4 road deaths per 100,000 population, which is significantly higher than the WA and national averages of 5.5 and 4.8 road deaths per 100,000 people in 2023, respectively[2]. While other states have higher fatality rates in regional areas than in metro areas, WA's regional fatality rate is particularly high.
- Much of the regional road network is unforgiving of mistakes, with high-speed two-way traffic, roadside hazards such as trees and a lack of safety features.
- Almost half of deaths and serious injuries in regional WA occur on local government managed roads (accounting for approximately 300 deaths and serious injuries each year)[3], meaning that both state and local roads need to be improved to deliver road safety targets.
- Infrastructure Australia has prioritised poor quality parts of Australia's regional road network[4] and more specifically single vehicle, run-off road crashes in WA[5], as issues of national significance.

The opportunity:

The Regional Road Safety Program (RRSP) is a landmark WA Government initiative delivering effective, low-cost safety treatments such as sealing shoulders, installing audible edge lines, medians and/or centre lines. The RRSP, announced by the Government in August 2019[6], was originally costed at $900 million and modelled to reduce regional road trauma by 60 per cent. To date, over 9,000km of road has been treated and around 10,000km is to be completed by mid-2025. Importantly, an additional $20 million was recently committed by the WA Government to expand the RRSP to local government roads.

RAC has welcomed the funding, but it is critical the program is rolled out in full (around 14,000km[7]), so that the safety benefits are realised across the whole state regional network.

Early evidence indicates that the RRSP is having a positive impact[8]. Crash reduction analysis (to December 2022), which was undertaken across 163 Regional Road Safety Program projects,

[1] Road Safety Commission (2024). Western Australian Road Fatalities and Serious Injuries 2023. Retrieved from: https://www.wa.gov.au/system/files/2024-09/ksi-report-western-australia-2023.pdf (accessed 24 September 2024).
[2] Fatalities based on Road Safety Commission Western Australian Road Fatalities 2023 report (which adopts WA Police boundaries) https://www.wa.gov.au/system/files/2024-02/rsc-report-preliminary-summary-of-fatalities-2023.pdf. Population statistics based on population estimates by ABS remoteness area, 2023 https://www.abs.gov.au/statistics/people/population/regional-population/latest-release#western-australia
[3] Based on analysis of WA crash data provided by Main Roads WA.
[4] Infrastructure Australia (2022). Regional road network safety improvements. Retrieved from: https://www.infrastructureaustralia.gov.au/map/regional-road-network-safety-improvements (accessed 3 September 2024).
[5] Infrastructure Australia (2023). Regional and rural WA road network safety improvements. Retrieved from: https://www.infrastructureaustralia.gov.au/map/regional-and-rural-wa-road-network-safety-improvements (accessed 3 September 2024).
[6] WA Government (2019, 1 August). Federal backing sought for WA road safety initiative [Media statement]. Retrieved from: https://www.wa.gov.au/government/media-statements/McGowan-Labor-Government/Federal-backing-sought-for-WA-road-safety-initiative-20190801 (accessed 7 November 2023).
[7] WA Government (2023). Road Safety Council – Report on Activities 2021-22. Retrieved from: https://www.wa.gov.au/government/publications/road-safety-council-report-activities-2021-2022 (accessed 17 September 2024).
[8] Main Roads WA. (2023). Success in Regional Road Safety Program. Retrieved from: https://annualreports.mainroads.wa.gov.au/AR-2023/welcome/our-stories/success-in-regional-road-safety-program.html (accessed 24 September 2024).

indicated a 50 per cent reduction in fatalities and a 35 per cent reduction in serious injuries when compared to the average of the five years prior. In the four years since the program commenced, there has been a 16 per cent reduction in fatal and serious injuries on state regional roads compared with the five years prior to the program commencing, whereas there has only been a 4 per cent reduction on local regional roads.

Local governments manage around 26,000km of sealed regional roads[9], many of which would not be eligible for RRSP treatments due to having a narrow road seal and/or lack of line marking[10]. There is a need for a new low-cost program, akin to the RRSP, but tailored to local government roads.

In late 2022, RAC commissioned the National Transport Research Organisation to develop a business case to seek funding to improve the safety of sealed, high speed local government roads in WA. The WA Local Government Association and Main Roads WA were project partners, supporting the project through: a funding contribution; active participation in the project working group; and a joint commitment to use the project deliverables to improve road safety outcomes.

The review identified 8,208km across 439 local government roads in need of urgent upgrades using criteria including: high-speed limit (90km/h or more) sealed roads; routes providing a regionally significant function[11]; roads with a 'high' crash rate[12]; and high-speed peri-urban roads identified by Main Roads WA. The proposed treatments include lane widening, centrelines, edge lines, sealed shoulders, audio tactile line markings, wide centreline treatments and hazard removal/protection.

The impact of the local roads program has been assessed using Australian Roads Assessment Program (AusRAP)[13] and Main Roads WA crash reduction factors[14]. The program resulted in the AusRAP Star Rating Score reducing from 38.4 before the countermeasures to 29.1 after, with Star Rating improvements demonstrated for 950km of road and the number of km of road rated 2 stars or above increasing from 1,230km to 2,002km. Most importantly, the investment will realise an estimated reduction of 138 fatalities and 489 serious injuries over a 30-year lifespan.

Funding these programs will assist with the delivery of *Driving Change: A Road Safety Strategy for Western Australia 2020–2030* (*Driving Change*) and the *National Road Safety Strategy 2021-30*, which have both identified making regional roads safer a priority to reduce road trauma. In addition, they respond to Infrastructure Australia's priority listing: *Regional Road Network Safety Improvements*, and also strongly align with other priority listings, including *Regional and Rural WA Road Network Safety Improvements,* and *Road Access Improvements to Remote WA Communities*.

RAC calls on the Australian Government to:

- Ensure that the existing WA Regional Road Safety Program is fully funded and delivered.
- Co-fund with the WA Government a new $552 million program applying low-cost safety treatments to over 8,200km of high speed sealed local government roads to save hundreds of lives and serious injuries.

[9] Western Australian Local Government Association (2022). Report on Local Government Road Assets & Expenditure 2020-2021. Retrieved from: https://walga.asn.au/policy-advice-and-advocacy/infrastructure/roads/report-on-local-government-road-assets-and-expendi.aspx (accessed 7 November 2023).
[10] Shoulder sealing and audible line treatments can only be applied to roads that already have centre lines and edge lines.
[11] As identified in Roads 2040. See: https://walga.asn.au/policy-advocacy/our-policy-areas/infrastructure/roads/roads-2040-regional-road-development-strategies
[12] Two or more mid-block KSI crashes or one or more mid-block KSI crashes and 5 or more mid-block crashes in total. Only mid-block crashes were considered since the mass-action nature of the treatments targeted mid-block crash types, predominantly run-off-road and head-on crashes.
[13] AusRAP measures the level of safety built into a road based on its existing design and features.
[14] A Crash Reduction Factor (CRF) is the percentage reduction in crashes resulting from the implementation of a treatment or countermeasure.

2. Network wide speed limit reviews for local government roads

The challenge:

- Travel speed affects reaction time and braking distance: With less time to react to hazards, driving at higher speeds increases both the likelihood of a crash and the impact speed if there is a crash. The human body is fragile and can only tolerate a certain amount of force, meaning that impact speed is arguably the most influential factor determining crash outcomes.
- Speed limits have historically reflected typical travel speeds rather than the human body's ability to tolerate the energy released during a crash. This means that most of them do not align well with the Safe System principles committed to by the WA Government in its state road safety strategy 2021-2030: *Driving Change* nor the Australian Government in its *National Road Safety Strategy 2021-30* (NRSS).
- Speed limit reductions have also traditionally been set on a case-by-case basis and considered at the road rather than network level, which limits opportunities for a more consistent approach.
- The time and resources required to undertake network wide speed limit reviews, coupled with the cost of purchasing and installing signage, are barriers to implementing safer speed limits at-scale, particularly if local governments are required to pay for signage.
- The NRSS identifies that speed management will underpin, and be a critical part of, addressing the priority areas identified within the strategy[15]. However, progress on the actions relating to speed limits has been modest - we need to act now in order to meet the 2030 targets.

The opportunity:

Speed limits should reflect the fragility of the human body and its ability to tolerate force in the event of a crash. Even the safest vehicles, road designs and the presence of proven, and often costly, road safety treatments are sometimes not enough to save lives and prevent the life-changing injuries that occur from crashes at higher speeds. It's also not feasible to wait for the billions in funding that would be required to upgrade local government roads to make them safer for the speeds drivers currently travel at.

Recognising the importance of speed reforms, the NRSS identified that 'Speed limit reviews are a key element of the comprehensive network-wide safety planning approach over the decade, especially to support vulnerable road users'.

Since June 2022, the City of Busselton, Shire of Augusta Margaret River and RAC, with support from Main Roads WA, have been working on a Safer Speeds Trial Project (the Trial), to test a new approach to assessing speed limits on local government roads within the Trial area, focusing on harm minimisation and analysing roads in a holistic, area-wide way, and ultimately create a Blueprint for Safer Speeds.

The design of the Trial has involved reviewing network data including traffic, speed, crash history, movement and place, and community nominations alongside a literature review of best practice speed limit setting. A set of principles for speed zoning, prioritising harm minimisation, were agreed to and helped guide the proposed speed limit reductions. Currently, there are many examples of

[15] Commonwealth of Australia (2021). National Road Safety Strategy 2021-30. Retrieved from: https://www.roadsafety.gov.au/sites/default/files/documents/National-Road-Safety-Strategy-2021-30.pdf (accessed 23 October 2024).

local roads with vastly different risk profiles, but which have the same speed limit.

The Blueprint will provide a process for an approach to speed limit setting across a wide and varying road network and be able to be replicated for other local government areas. Further, early learnings from the Trial have highlighted that network wide assessment and implementation of new speeds and speed limit signage must be sufficiently resourced.

RAC calls on the Australian Government to:

- Establish a new $25 million per year speed limit signage fund that enables local governments to implement safer speed limits aligned to the NRSS where approved by their state or territory speed limit setting authority.

3. Accelerated roll-out of active transport infrastructure

The challenge:

- In 2022, the Australian Government legislated net zero greenhouse gas emissions by 2050[16]. Transport is currently the third largest source of greenhouse gas emissions, and without action will be Australia's highest emitting sector by 2030[17]. WA's population is forecast to grow by 21 per cent, to just over 3.57 million, by 2036[18], which will increase trips across the network. Most trips are currently made by car. Continuing to build and expand roads is incompatible with net zero goals[19] and will not solve traffic congestion.
- Active travel plays a fundamental role in achieving net zero by 2050[20], but current rates of walking and riding remain low, even for short trips[21]. Around 4.2 million car trips are made each day in Perth and 2.8 million of these are under 5km[22]. According to RAC data, 48 per cent of car trips in Perth made between June 2023 and June 2024 were under 5km in distance and 10 per cent were under 1km[23]. Despite clear evidence of latent demand[24], there has been little change to mode share for active travel[25], highlighting the need for a step change in investment.
- RAC member sentiments point to high levels of dissatisfaction with active transport infrastructure where fear of sharing the roads with motorists is the main barrier to cycling more often[26]. Western Australians want more investment in off-road and shared path cycling infrastructure and projects to make local streets safer for people riding a bike[27].
- Infrastructure Australia notes that the absence of high-quality active transport infrastructure forces people to rely on cars, which raises serious concerns relating to equity, inclusion, urban livability and health[28].
- In 2024, the Australian Government committed $100 million over four years to a new National Active Transport Fund to upgrade and deliver new bicycle and walking paths. If allocated equally to each state and territory, WA would receive $2.7 million per year.

[16] Department of Climate Change, Energy, the Environment and Water (2024). Climate Change Act 2022. Retrieved from: https://www.legislation.gov.au/C2022A00037/latest/text (accessed 6 September 2024).
[17] Department of Climate change, Energy, the Environment and Water (2024). Transport and Infrastructure Net Zero Consultation Roadmap. Retrieved from: https://consult.dcceew.gov.au/transport-and-infrastructure-net-zero-consultation-roadmap (accessed 6 September 2024).
[18] Western Australian Planning Commission (2024). Western Australia's Population Expected to Top 3.5 million people by 2036. Retrieved from: https://www.planning.wa.gov.au/news-and-media-statements/western-australia-s-population-expected-to-top-3.5-million-people-by-2036#:~:text=The%20State's%20population%20will%20reach,population%20will%20continue%20to%20increase (accessed 19 September 2024).
[19] Australian Institute of Traffic Planning and Management (2024). The Path to Net Zero: Decarbonising Australia's Transport System. Retrieved from: aitpm-decarbonisation-policy-issues-paper-consultation-final-09-08-2024-wfiwpjexhsaa.pdf (accessed 27 August 2024).
[20] Department of Climate change, Energy, the Environment and Water (2024). Transport and Infrastructure Net Zero Consultation Roadmap. Retrieved from: https://consult.dcceew.gov.au/transport-and-infrastructure-net-zero-consultation-roadmap (accessed 6 September 2024).
[21] Department of Transport (2021). The declining rate of walking cycling to school in Perth. Retrieved from: https://www.transport.wa.gov.au/mediaFiles/active-transport/AT_P_Declining_Rate_walking_cycling_to_school_in_Perth.pdf (accessed 6 September 2024).
[22] Infrastructure Australia (2022). Perth Active Transport Improvements. Retrieved from: https://www.infrastructureaustralia.gov.au/map/perth-active-transport-improvements (accessed 30 August 2023).
[23] RAC (2024). RAC Go App Data (unpublished) Total of 2,908 users.
[24] Department of Transport (2023). People's Pulse Report 2022-23. Retrieved from: https://www.transport.wa.gov.au/mediaFiles/active-transport/AT_P_PeoplesPulseReport_ActiveTravelCommunityInsights_2022_23.pdf (accessed 24 September 2024).
[25] ABS data for ten SA2 suburbs between 2011- 2021 assessing proportion of car and public transport trips.
[26] RAC (2023). Member Priority Tracker: Active Travel (Unpublished) Total of 724 responses. Data has been post-weighted to be representative of RAC's membership which is broadly consistent with the WA population profile.
[27] RAC (2023). RAC Member Priorities Tracker: Cycling. Retrieved from: https://rac.com.au/about-rac/advocating-change/reports/member-priorities-tracker (accessed 6 October 2023).
[28] Infrastructure Australia (2021). Reforms to meet Australia's future infrastructure needs - 2021 Australian Infrastructure Plan. Retrieved from: https://www.infrastructureaustralia.gov.au/2021-australian-infrastructure-plan-implementation-and-progress/recommendation-4.3 (accessed 24 September 2024).

Given that high-quality cycling routes costs upward of $2 million per km[29], the state allocation of the Active Transport Fund would only construct approximately 6km of cycling routes across the four years in Western Australia. Federal funding for active transport pales in comparison to road building. The $25 million a year National Active Transport Fund represents just 0.3 per cent of Commonwealth road-related expenditure in 2021-22[30].

- The WA Government's planned annual investment in active travel infrastructure of an average of $78 million each year between 2024 and 2028, represents only around 2 per cent of the 2022-23 combined capital expenditure of Main Roads WA, Public Transport Authority, and Department of Transport[31].
- Cycling infrastructure is often funded as part of a road project, meaning that it does not always align with where it is most needed. While much of the network along rail corridors and freeways has been completed, Infrastructure Australia has identified as a priority the need to close gaps, as well as provide much needed infrastructure along major arterials[32].
- The Long Term Cycle Network (LTCN) is an aspirational blueprint which identifies cycling routes across Perth and Peel as well as WA, and has been in place since 2019. Based on current and projected rates of funding and construction and that only around 40 per cent of the LTCN has been completed[33], it will take another 60 years to complete the network[34].

The opportunity:

Transitioning short vehicle trips to active travel modes presents a big opportunity. Most people can cycle 5km in 20 minutes. Making it easier for people to travel by active modes reduces emissions, lowers household transport costs, manages congestion, reduces pressure on the health system[35], and saves on road building and maintenance costs[36] . It increases physical activity, provides opportunities for social connectedness by humanising our streets and places[37], and can improve mental health[38].

Investing in active travel creates a stronger, more inclusive and sustainable economy by providing travel options for people of all ages and abilities, that are virtually emission free. In 2022, the Australian cycling and e-scooter economy was estimated to have directly contributed

[29] Australian Transport Assessment and Planning. 2024. "Option Identification: 3.5 The Cost of Active Travel Interventions". Retrieved from: https://www.atap.gov.au/mode-specific-guidance/active-travel/3-option-indentification (accessed 30 October, 2024).
[30] BITRE. 2023.Road Related Revenue and Expenditure. Retrieved from: https://www.bitre.gov.au/publications/2023/australian-infrastructure-and-transport-statistics-yearbook-2023/road-related-revenue-expenditure#dl-data (accessed 28 October 2024).
[31] Main Roads WA (2023). Main Roads WA Annual Report 2023. Retrieved from: https://annualreports.mainroads.wa.gov.au/AR-2023/pdf/MRWA-Annual-Report-2023.pdf (accessed 23 July 2024) *and* Public Transport Authority (2023). Public Transport Authority Annual Report 2022-23. Retrieved from: https://www.pta.wa.gov.au/Portals/15/annualreports/2023/Public%20Transport%20Authority%20Annual%20Report%202022-23.pdf (accessed 23 July 2024) *and* Department of Transport (2023). Annual Report 2022-23. Retrieved from: 2022-23 Annual Report (transport.wa.gov.au) (accessed 7 October 2024).
[32] Infrastructure Australia (2022). Perth's Active Transport improvements. Retrieved from https://www.infrastructureaustralia.gov.au/map/perth-active-transport-improvements (accessed 1 October 2024).
[33] Calculation based on data provided by Department of Transport, Western Australia (2023).
[34] Western Australian Government (2024). New bike network grants to focus on public transport connections. Retrieved from: https://www.wa.gov.au/government/media-statements/Cook-Labor-Government/New-bike-network-grants-to-focus-on-public-transport-connections-20240612 (accessed 30 August 2024).
[35] Giles-Corti, B., Foster, S., Shilton, T., Falconer, R. (2010). The Co-Benefits for Health of Investing in Active Transportation. Retrieved from: https://www.phrp.com.au/wp-content/uploads/2014/10/NB10027.pdf (accessed 30 August 2024).
[36] Commonwealth Department of Infrastructure and Regional Development (2016). Australian Transport Assessment and Planning Guidelines: M4 Active Travel. Retrieved from: https://www.atap.gov.au/mode-specific-guidance/active-travel/5-estimation-of-benefits (accessed 30 August 2024).
[37] Cycling Embassy of Denmark (2018). Cycling Recommendations. Retrieved from: https://cyclingsolutions.info/cycling-recommendations/ (accessed 21 August 2024).
[38] Berrie et al (2024). Does Cycle Commuting Reduce the Risk of Mental Ill-Health? An Instrumental Variable Analysis Using Distance to Nearest Cycle Path. Retrieved from: https://academic.oup.com/ije/article/53/1/dyad153/7529101?login=false (accessed 24 September 2024).

$18.6 billion in economic, health and social benefits, which includes $3.7 billion in direct value add[39]. International research shows that every kilometre cycled generates $0.26 whereas every kilometre driven costs society $0.24[40].

A continuous and connected, low-stress network is essential for people of all ages and abilities to be able to travel safely, comfortably, and conveniently by active modes[41]. A complete network should not only be made up of paths and off-road facilities, but also the reallocation of space on existing streets, connections across side streets and intersections, and slower speed zones.

Internationally, governments have recognised the value of investing in active travel. The UN recommends that for national policy makers to save lives, reduce pollution and get cities moving, they must set aside at least 20 per cent of the total transport budget to fund non-motorised transport programs (including walking and cycling)[42].

In Ireland, the parties forming government in 2020 committed 20 per cent of the 2020 transport capital budget per year (€360 million, or $588 million AUD) to cycling and walking for the five-year lifetime of the Government[43]. The Scottish Government recently committed 10 per cent of the transport budget to active travel in 2024-25[44]. In 2021, Paris invested €250 million ($403 million AUD) across 2021-26 in their aim for all streets to be cyclable by 2026[45]. Their ongoing investment since 2015 has resulted in 11 per cent of all trips made by cycling in 2023 compared with only 3 per cent made in 2010, where cycling trips now outperform driving trips[46]. RAC recommends that the Australian Government substantially increases investment in the National Active Transport Fund as an interim step towards a target of 20 per cent of Commonwealth road-related expenditure being spent on active transport.

RAC calls on the Australian Government to:

- Increase the proportion of the transport capital budget allocated to the National Active Transport Fund from under 1 per cent to 10 per cent in order to build the safe infrastructure required for substantial mode shift.

[39] We Ride Australia (2023). The Australian Cycling Economy Report – Estimating the Size and Scope of the Australian Cycling Economy in 2022. Retrieved from: https://www.weride.org.au/wp-content/uploads/2023/11/The_Australian_Cycling_and_e-scooter_Economy_in_2022_WeRide_and_EY_2023_Report_Final_web.pdf (accessed 29 August 2024).
[40] Institute for Transportation Development and Policy (2022). Making the Economic Case for Cycling. Retrieved from: https://itdp.org/wp-content/uploads/2022/06/Making-the-Economic-Case-for-Cycling_6-13-22.pdf (accessed 24 September 2024).
[41] National Association of City Transportation Officials (2017). Designing for All Ages Abilities - Contextual Guidance for High-Comfort Bicycle Facilities. Retrieved from: https://nacto.org/wp-content/uploads/2017/12/NACTO_Designing-for-All-Ages-Abilities.pdf (accessed 6 September 2024).
[42] UN Environment (2016). Global Outlook on Walking and Cycling. Retrieved from: http://www.spokes.org.uk/wp-content/uploads/2010/04/1610-UNEP-20-of-budgets-globalOutlookOnWalkingAndCycling.pdf (accessed 30 September 2024).
[43] Programme for Government. (2020). "Our Shared Future". Retrieved from: https://www.rte.ie/documents/news/2020/06/programmeforgovernment-june2020-final.pdf (accessed 30 September 2024).
[44] Transport Scotland. (2023). Observations of Current Active Travel Delivery in Scotland. Retrieved from https://www.transport.gov.scot/publication/the-ambassador-for-active-travel-s-final-report/part-one/ (accessed 9 October 2024).
[45] City of Paris (2021). The Paris Bicycle Plan 2021-2026. Retrieved from: https://www.paris.fr/en/pages/a-new-cycling-plan-for-a-100-bikeable-city-28350 (accessed 24 September 2024).
[46] City of Paris (2024). Bicycles Outperform Cars in Paris and Its Inner Suburbs. Retrieved from Bicycles outperform cars in Paris and its inner - Ville de Paris (accessed 7 October 2024).

4. Scaling up Electric Vehicle (EV) charging infrastructure and extending financial support

The challenge:

- Tragically, modelling estimates more than 11,100 Australian adults die prematurely each year due to exposure to traffic emissions[47].
- It's unsurprising therefore, that in 2021, Australia recorded the highest total oxides of nitrogen (NOx) emissions per capita of all OECD countries; its figure of 109kg per person was almost six and a half times the OECD figure[48].
- As well as people's health, our environment is also impacted, a problem that is only worsening. In 2022, road transport contributed close to 18 per cent of national carbon dioxide equivalent (CO2-e) emissions, with cars alone accounting for almost 9 per cent of national emissions[49].
- Over the last 30 years, road transport CO_2-e emissions per person increased in WA by almost 12 per cent, whilst the national average declined by over 6 per cent[50].
- In 2022, per person, Australia's carbon dioxide (CO_2) emissions were almost double the Organisation for Economic Co-operation and Development (OECD) figure[51].
- In 2023, battery electric vehicle (BEV) and plug-in hybrid electric vehicle (PHEV) sales represented 12 per cent of new vehicle sales in Australia, lagging behind the global average of 18 per cent[52].
- Australia has a high number of EVs per public charging point compared with other countries, at nearly 70 per public charging point as of 2023 (compared with between 10 and 30 in most IEA member countries)[53], leading to long wait times. Australia has less than 0.5kW of public charging per EV, which is again low compared to other countries[54].
- Infrastructure Australia has identified the need for more EV fast chargers on national highways as an issue of national significance[55].
- According to our members who aren't considering an EV for their next vehicle purchase, the top barriers are cost and access to charging infrastructure[56].

[47] University of Melbourne (Melbourne Climate Futures) (2023). *Health Impacts Associated With Traffic Emissions In Australia.* Retrieved from: https://www.unimelb.edu.au/__data/assets/pdf_file/0006/4498161/Expert-Position-Statement_Vehicle-emissions_FINAL.pdf (accessed 24 July 2024).

[48] Organisation for Economic Co-operation and Development (2024). *OECD Data Explorer*. Retrieved from: data-explorer.oecd.org/vis?lc=en&df%5Bds%5D=DisseminateArchiveDMZ&df%5Bid%5D=DF_DP_LIVE&df%5Bag%5D=OECD&df%5Bvs%5D=&av=true&pd=2022%2C2022&dq=OECD%2BOAVG....A&to%5BTIME_PERIOD%5D=false&vw=tb (accessed 12 September 2024).

[49] Department of Climate Change, Energy, the Environment and Water (2024). *Australia's National Greenhouse Accounts.* Retrieved from: https://ageis.climatechange.gov.au/ (accessed 24 July 2024).

[50] Calculated by using emissions in 1993 and 2022 and Australian Bureau of Statistics – National, state and territory population statistics.

[51] Organisation for Economic Co-operation and Development (2024). *Air and GHG emissions*. Retrieved from: https://www.oecd.org/en/data/indicators/air-and-ghg-emissions.html (accessed 3 September 2024).

[52] International Energy Agency (2024). *Global EV Data Explorer.* Retrieved from: https://www.iea.org/data-and-statistics/data-tools/global-ev-data-explorer (accessed 24 July 2024).

[53] Federal Chamber of Automotive Industries (2023). *VFACTs WA Report – New Vehicle Sales December 2022* [subscription].

[54] WA Government (2024). *Western Australia's Climate Action*. Retrieved from: https://www.climateaction.wa.gov.au/wa-climate-action (accessed 3 September 2024).

[55] Infrastructure Australia (2019). *National highway electric vehicle fast charging.* Retrieved from: https://www.infrastructureaustralia.gov.au/map/national-highway-electric-vehicle-fastcharging (accessed 28 October 2022).

[56] RAC (2023). *RAC Member Priorities Tracker: Sustainability (unpublished)*. 406 respondents from the Perth and Peel region and 115 from regional WA. Age, gender, and location sampling quotas were applied, and data has been post-weighted to be representative of RAC's membership.

The opportunity:

The broad adoption of EVs will reduce harmful vehicle emissions, help reduce reliance on fossil fuels, create employment in a new and developing industry, and reduce the cost of operating a vehicle[57].

Modelling by Aurecon[58] shows only BEVs and Fuel Cell EVs (FCEVs) have the potential to come close to the magnitude of life cycle CO_2-e reductions[59] needed to meet 'Australia's climate commitments[60]. However, in the shorter term PHEVs can also support the transition towards lower-emission road transport, providing a smaller but significant contribution towards the achievement of Australia's emissions reduction targets while the infrastructure and technology for BEVs and FCEVs continue to develop.

Operating on WA's mixed grid[61], the life cycle emissions of BEVs are already lower than a comparable petrol vehicle by 55 per cent, and as the electricity mix continues to decarbonise, this gap will increase on a fully renewable grid, the emissions of a BEV would be 86 per cent lower. The life cycle emissions of an FCEV powered by green[62] or grey[63] hydrogen would be 83 per cent or 50 per cent lower on a petrol equivalent, respectively. The life-cycle emissions of PHEVs are lower than a comparable petrol vehicle by 43 per cent.

The National Electric Vehicle Strategy[64] summarises existing initiatives such as: developing a New Vehicle Efficiency Standard; establishing a national network of EV chargers on major highways; and the Electric Car Discount which exempts low and zero emission vehicles from the 5 per cent import tariff and fringe benefits tax (FBT) if they are below the luxury car tax threshold for fuel-efficient vehicles[65]. However, the FBT exemption for plug-in hybrid EVs is due to end on 1 April 2025.[66].

According to Commonwealth Scientific and Industrial Research Organisation (CSIRO) EV projections for WA's Wholesale Electricity Market (WEM)[67], the expected scenario[68] is that in 2030 there will be approximately 236,000 passenger BEVs within the SWIS area[69]. International Council on Clean

[57] Australian Government. (2023) *National Electric Vehicle Strategy*. Retrieved from https://www.dcceew.gov.au/sites/default/files/documents/national-electric-vehicle-strategy.pdf (Accessed18 September 2024)

[58] Modifying the International Council on Clean Transport research/modelling for the Western Australia context in 2023. Using average vehicle characteristics and fuel and electricity consumption in real-world driving conditions. Scenarios considered the South West Interconnected System emission factors for 2021 grid mix (which is 0.68kg CO_2-e/kWh) sourced from Clean Energy Regulator Emissions and Energy Reporting System (EERS) release, and a potential future where only renewable energy is used for electricity supply and hydrogen production.

[59] Accounting for the tailpipe emissions, fuel and electricity production, and vehicle manufacturing Assumptions include average vehicle lifetime of 240,000km; fuel economy; and emissions. Inputs include: fuel/electricity production; fuel/electricity consumption; maintenance; and vehicle, hydrogen tank and battery manufacturing.

[60] Limiting global warming to below 2°C, preferably below 1.5°C, pre-industrial levels. United Nations Climate Change (2023). *The Paris Agreement.* Retrieved from: https://unfccc.int/process-and-meetings/the-paris-agreement (accessed 11 August 2024).

[61] Assumptions based on 2021 grid mix (which is 0.68kg CO_2-e/kWh). Clean Energy Regulator (2023). *EERS release 2021-22.* Retrieved from: https://www.cleanenergyregulator.gov.au/OSR/EERS/Archived-EERS-releases/EERS-release-2021-22 (accessed 11 August 2023).

[62] Green hydrogen is extracted using a method that does not produce GHG emissions.

[63] Grey hydrogen is extracted from natural gas, or methane, typically using steam reformation. Emissions during this process are not captured or stored, and are released into the atmosphere.

[64] Supra note- 93

[65] Australian Government (2024). Green Vehicle Guide: Electric Vehicles. Retrieved from: https://www.greenvehicleguide.gov.au/pages/LowAndZeroEmissionVehicles/ElectricVehicleInformation Accessed October 28, 2024)

[66] Australian Tax Office. (2024). *Electric cars exemption*. Retrieved from: https://www.ato.gov.au/businesses-and-organisations/hiring-and-paying-your-workers/fringe-benefits-tax/types-of-fringe-benefits/fbt-on-cars-other-vehicles-parking-and-tolls/electric-cars-exemption (accessed 24 October 2024).

[67] Australian Energy Market Operator (2024). *WEM Electricity Statement of Opportunities.* Retrieved from: https://aemo.com.au/en/energy-systems/electricity/wholesale-electricity-market-wem/wem-forecasting-and-planning/wem-electricity-statement-of-opportunities-wem-esoo (accessed 3 September 2024).

[68] CSIRO has modelled four scenarios: Exploring Alternatives; Progressive Change; Step Change; and Hydrogen export. It has been noted that the tentative mappings for the 2023 WEM Electricity Statement of Opportunities indicate that Step Change is the expected scenario.

[69] Modelling covers the South-West Interconnected System project area, and does not include the North-West Interconnected System or regional power.

Transport research indicates[70] that to service this many vehicles, at a minimum, around 12,000 workplace, 1,600 DC fast chargers and 8,000 public AC chargers would be required[71] and this would need to be scaled up to service the whole of WA. At a national level, CSIRO's modelling projects that EVs [72]will account for around 52 per cent of new passenger vehicle sales and almost 15 per cent of the total vehicle fleet in Australia in 2030[73]. In a 2023 survey, RAC members identified that the second most effective way for the government to reduce vehicle emissions is to invest in public EV charging infrastructure.

A key learning from operating the RAC Electric Highway® is that, for the public to have confidence in using public charging infrastructure, it is critical not only to invest in the chargers themselves but also in amenities that improve comfort and safety while waiting for an EV to charge. This includes lighting and CCTV, as well as access to facilities such as seating, shelters, bins and toilets, and is particularly important in remote locations where stopping to charge a vehicle also doubles as a rest stop for drivers.

The FBT electric car exemption for plug-in hybrids needs to be extended beyond April 2025, recognising that PHEVs are important part in Australia's transition to electric vehicles. By incorporating willingness to pay and consumer choice modelling, incentive schemes including the Electric Car Discount should, wherever feasible, cater to those who would otherwise be unable to afford an EV[74]. The Electric Vehicle Council suggests scheme options such as zero-interest loans or lease schemes targeted at low to middle income households[75]. As of 2023, 25 per cent of all new cars purchased in France were EVs[76], yet the French Government continues to drive this adoption through its EV purchase subsidy and conversion subsidy, with more generous subsidies available for those on low incomes[77]. On the other hand, EVs consist of 24 per cent of car sales in Germany, but sales fell by almost 5 per cent in the first quarter of 2024 following the removal of subsidies at the end of 2023[78].

RAC calls on the Australian Government to:

- Introduce a zero-interest loan scheme for EV purchases for low and middle income households.
- Extend the Fringe Benefit Tax exemption for plug-in hybrid electric vehicles for a further two years.
- Incorporate key amenities including lighting, CCTV and shelters into all charging stations on the National EV Charging Network.

[70] The International Council on Clean Transportation (2021). *Charging Up America: Assessing the Growing Need for U.S. Charging Infrastructure Through 2050.* Retrieved from: https://theicct.org/publication/charging-up-america-assessing-the-growing-need-for-u-s-charging-infrastructure-through-2030/ (accessed 9 October 2023).

[71] Infrastructure needs were calculated by the International Council of Clean Transportation (ICCT) (2021) ratios and CSIRO (2024) EV projections.

[72] Includes battery electric vehicles; plug-in hybrid vehicles; and fuel-cell electric vehicles.

[73] Commonwealth Scientific and Industrial Research Organisation (2023). *Electric vehicle projections 2023: update to the 2022 projections report* Retrieved from: https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2023/2024-forecasting-assumptions-update-consultation-page/csiro---2023-electric-vehicle-projections-report.pdf?la=en (accessed 3 September 2024).

[74] RAC. (2024). *Inquiry into the transition to electric vehicles RAC response to the Standing Committee on Climate Change, Energy, Environment and Water. Retrieved from:* 2024---rac-response-to-the-inquiry-into-the-transition-to-electric-vehicles.pdf (accessed 1 October 2024).

[75] International Energy Agency. (2024). *Global EV outlook 2024*. Retrieved from: https://www.iea.org/reports/global-ev-outlook-2024 (accessed 27 September 2024)

[76] Supra note- 90

[77] Republique Francaise. (2023). *Eco bonus for a car.* Retrieved from: https://www.service-public.fr/particuliers/vosdroits/F36844?lang=en (accessed 2 October 2024).

[78] Supra note-90

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