MCKELL INSTITUTE

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Fairer Roads

HOW A UNIVERSAL, PROGRESSIVE ROAD USER CHARGE CAN MAKE DRIVING MORE EQUITABLE FOR ALL

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The McKell Institute is an independent, not-for-profit research organisation dedicated to advancing practical policy solutions to contemporary issues.

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Executive Summary

The Electric Vehicle (EV) revolution is cause for celebration. As Australia seeks to meet its climate targets, EVs offer a way forward to reducing emissions while maintaining Australia's love of the freedom that cars offer.

With the rise of EVs, and the associated need for a new road user charge system as they become more prevalent, we believe that this new system should implement progressivity into the road user charging system to ensure that those that travel the furthest and earn the least, pay less.

Currently, the fuel excise system is regressive and heavily punishes low income earners who typically cannot afford highly fuel efficient vehicles and who are typically required to live further from metropolitan centres, in areas poorly serviced by public transport. We believe a future-facing road user charge system should address this inequality.

Fuel excise revenue itself is being put under stress by the growth in diesel fuel tax credits and the increased fuel efficiency of petrol cars. This reality challenges the misconception that electric cars, which make up less than 2 per cent of the national fleet and have only been part of the vehicle fleet in recent years, are causing a reduction in revenue. Rather, it is critical to build a fuel tax system that realises the growth in petrol hybrids cars as a challenge to fuel excise and plans for the growth in battery electric and plug-in hybrid electric cars in the 2030s.

EVs are becoming increasingly prevalent in Australia. Since 2021, the number of electric vehicles registered in Australia has almost doubled each year. They are also becoming more mainstream, and being purchased by suburban working families. The highest uptake of EVs is now in the outer suburbs of major cities, where working families are seeking to save on petrol. When EVs were first introduced to Australia as a feasible option for new car purchasers, the early stage of the technology meant that they were broadly only accessible to those on high incomes. This has now fundamentally changed, with affordable EV options increasing significantly, particularly since the introduction of New Vehicle Efficiency Standards. The Commonwealth Government expects full price parity by 2030.[1]

As EVs have proliferated, a question has arisen about EV owners' contribution to road usage. Under the current system, the Commonwealth Government charges an excise on fuel, which acts as a proxy road usage charge, with the amount that the driver pays being dependent on how much they drive and how efficient their vehicle is. EVs do not pay for fuel, and therefore aren't subject to this tax. Marginally offsetting this lack of tax paid on fuel for road usage is that EV drivers are charged GST for electricity.

To replace this lucrative form of revenue, the Commonwealth Government is seeking a new scheme to charge EV drivers for their road usage through a different mechanism. This approach has significant risks, including imposing a regressive tax on working families, slowing EV uptake, and making EVs pay higher rates of tax per kilometre than petrol hybrid vehicles.

This report examines this approach, and proposes an alternative: a universal, progressive road user charge, that is phased in and interlinked with the existing tax system.

Our reform alternative offers several benefits:

1. It is universal, applying to all vehicles over time and doesn't discriminate between EVs and **all other vehicles.**

2. It is phased in, so no existing driver would be adversely impacted.

3. It is progressive and interacts with existing Commonwealth taxes, so concessions and rebates for those on the lowest incomes can be a design feature of the charge.

4. Once it phases in, it creates a chance to scrap the fuel excise, alleviating cost-of-living pressures on those who are less likely to purchase a new car.

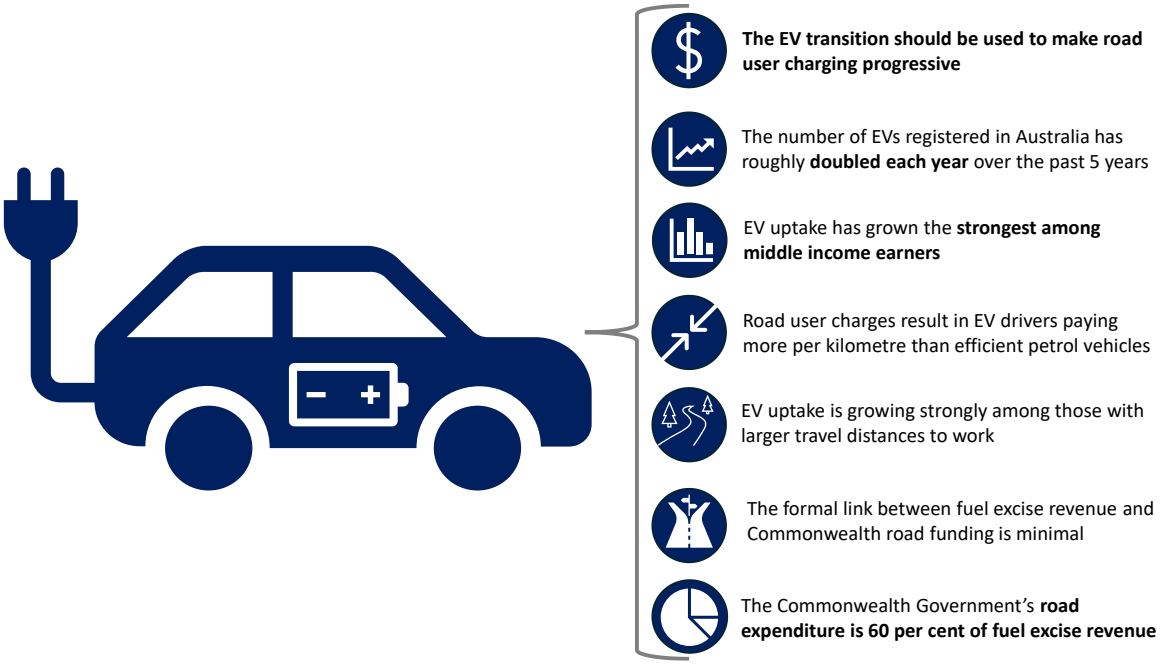
This alternative pathway addresses the same core problem that the government is trying to solve: ensuring EV drivers fairly contribute to road usage. But it does so in a way that makes road user charging fairer for everyone, prioritises the cost of living concerns of lower income drivers, and does not specifically discourage the uptake of EVs, a key priority of government.

This report also presents an alternative flat-rate reform model, which proposes a universal annual road usage charge from 2031 alongside the retention of existing fuel excise arrangements.

Key Findings

1. The EV transition presents a **great opportunity for progressive reform of the road user charging system.**
2. The number of EVs registered in Australia has roughly **doubled each year over the past 5 years**.
3. EV uptake has grown the **strongest among middle income earners** since 2021 and those living in the middle and outer suburbs of capital cities.
4. EV uptake is growing strongly among those with larger travel distances to work.
5. A poorly designed EV-only RUC would dampen EV uptake which would be contrary to the Treasurers' position that a RUC should not 'disincentive EV uptake'.
6. Under the previously proposed NSW RUC system, EVs would have been charged approximately **43 per cent more than** efficient **internal combustion engine (ICE) vehicles**.
7. The formal **link between fuel excise revenue and road funding is minimal**.
8. The Commonwealth Government's road expenditure accounts for only around **60 per cent of the revenue generated by the fuel excise**.
9. Our modelling suggests that a future road user charge system should target **6.44c/km in 2024-25 dollars**.

Figure 1: Summary of findings

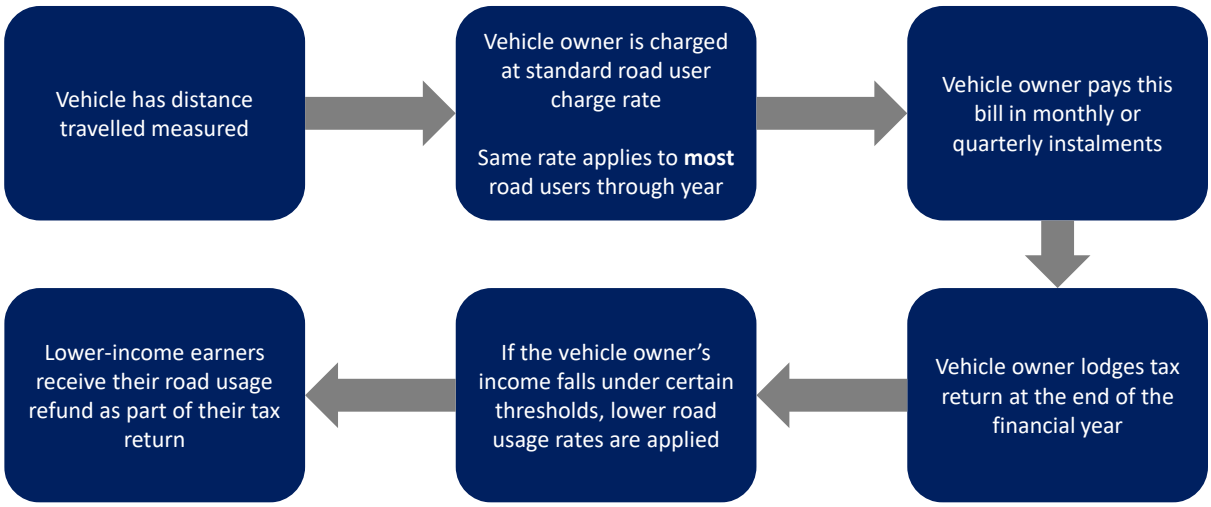


Recommendation

Table 1: Summary of the report's recommendation

Recommendation	Policy intent	Potential levers
Use the EV transition to introduce progressivity into the road user charging system	Charge higher income earners more than low-income earners for road usage to reflect that low-income earners are often forced to live further from city centres and are required to drive further	Following the High Court's decision in the Vanderstock case, the Commonwealth Government has sole agency over road user charges. With that, they can integrate any future road user charge system into existing tax systems. Adjustments to road user charge rates based on income can be done at the point of lodging a tax return

Figure 2: Illustration of how the progressive road user charge system would work



Current state

Key Points:

1. EV uptake is now highest among suburban working families.
2. Middle income earners are picking up EVs at a faster rate than Australia's top income earners.
3. With EVs becoming far more affordable, the suggestion that EVs not paying fuel excise is an example of high income earners avoiding tax is unfounded.
4. Those who live further from work are adopting EVs at a faster rate than those who live close.
5. The link between revenue raised from fuel excise and road maintenance funding has been minimal since 1992.
6. Road maintenance expenditure by the Commonwealth Government is only approximately 60 per cent of the revenue generated from the fuel excise.

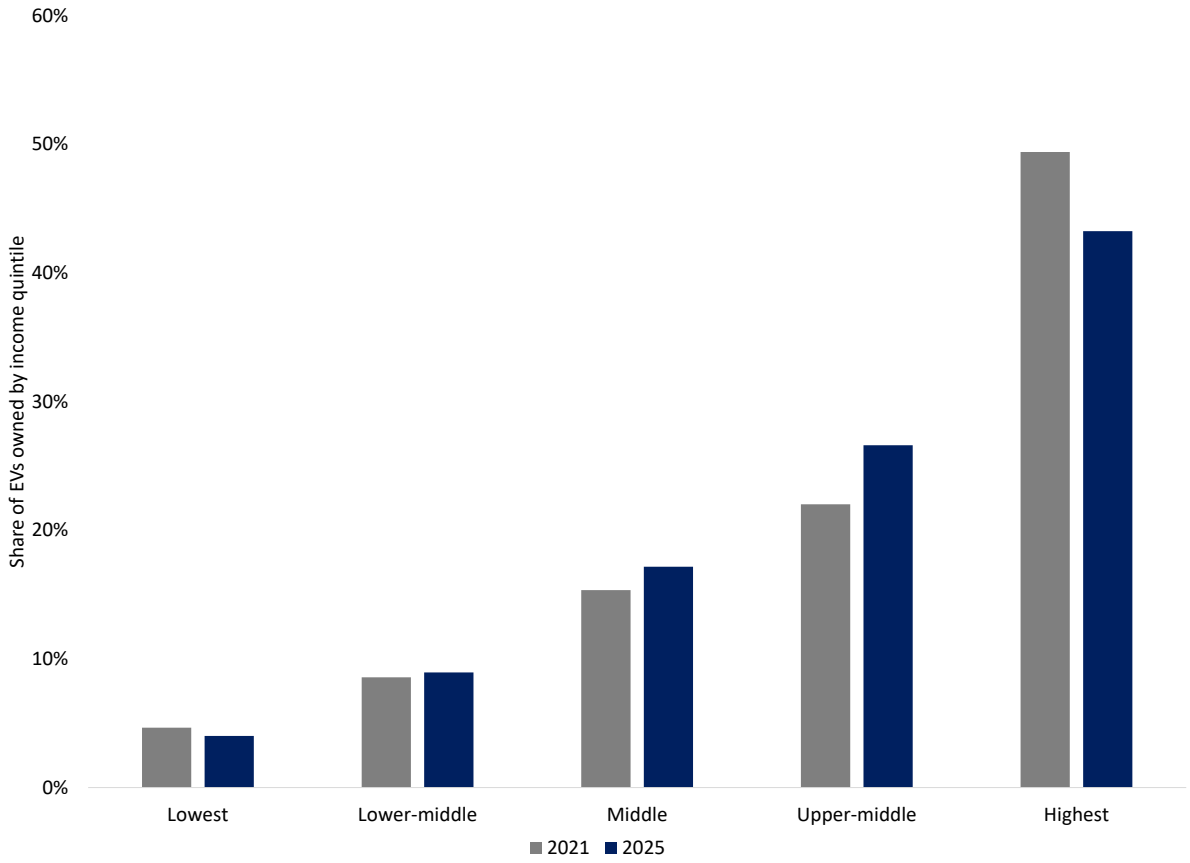
Changing demographics for EVs

A large portion of the debate around applying a road user charge to electric vehicles has tended to centre on issues around equity. In 2021, the areas in the top 20 per cent of the income distribution owned 49 per cent of the nation's EVs. In 2025, that share has shrunk to 43 per cent. This changing trend needs to be understood in the context that EVs were an expensive technology a few years ago and that new cars, as opposed to used cars, are generally purchased by higher income households.

The Federal Government's fringe benefits tax exemption on battery electric vehicles since 2022 (known as the Electric Car Discount) has kick-started the second-hand market for EVs.[2] Given that roughly 75 per cent of people only ever buy a used vehicle, the tripling of the

second-hand market since 2022 is a celebration of the increasing equity.[3] There are now many used models and makes available for under $35,000 across Australia for different lifestyles.

Figure 3: Change in the share of EV ownership by income quintile, 2021 to 2025

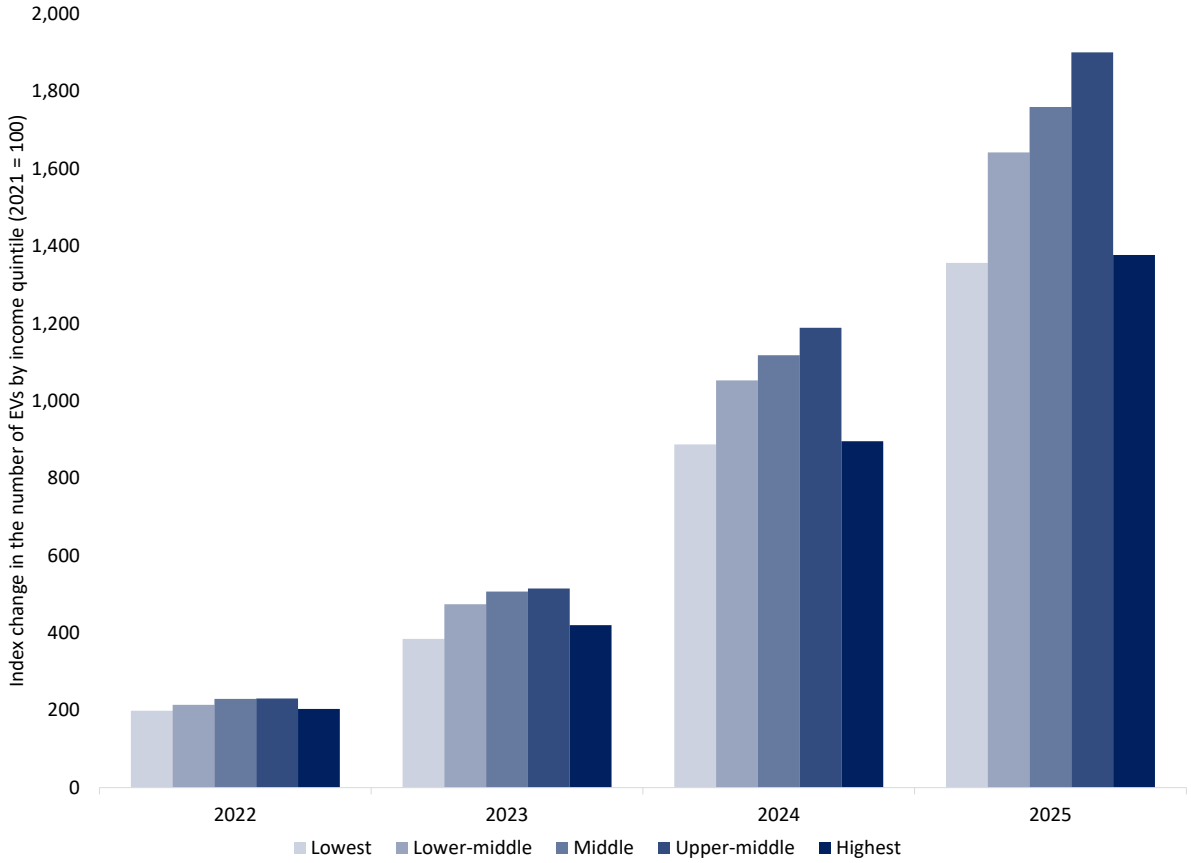


Source: McKell Institute, BITRE, ATO

This shift in the share of EV ownership is a result of EV uptake growing more strongly among middle income earners than top earners as EV prices have continued to fall. The pace of EV uptake since 2021 among middle income earners has significantly outpaced the uptake by the highest income earners.

Since 2021, the number of EVs owned by upper-middle income earners has grown at a compound annual growth rate of 109 per cent per year. Middle income earners have increased their EV ownership by around 105 per cent per year, and lower-middle income earners have grown their EV ownership by around 101 per cent per year. The highest and lowest income quintiles have had EV ownership growing at roughly the same rate of 93 per cent and 92 per cent per year, respectively.

Figure 4: Index change in the number of EVs owned by each income quintile, 2021 to 2025



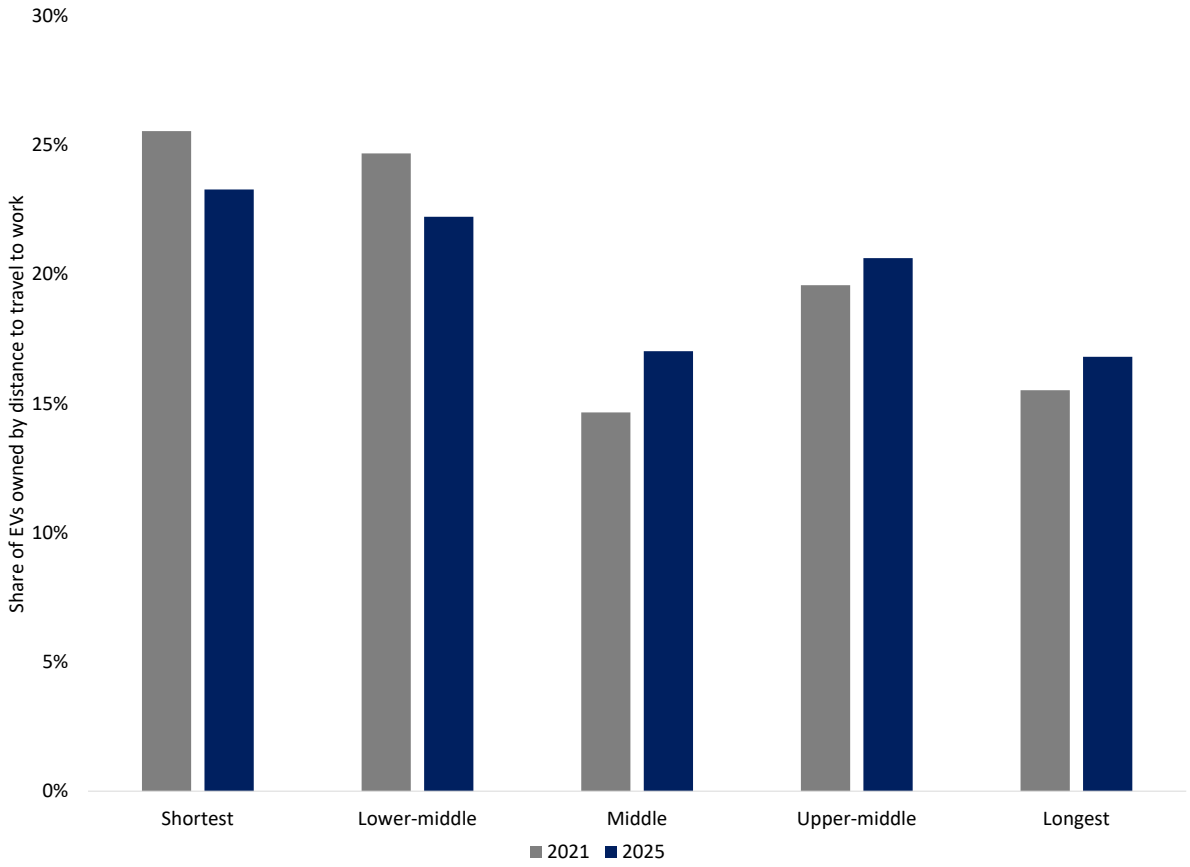
Source: McKell Institute, BITRE, ATO

What we're seeing across the income spectrum is that there is a clear shift in EV uptake from high income earners to middle to lower income earners. As EV costs continue to fall and they continue to make up a larger share of new vehicles available for sale, we will see this trend continue and the share of EVs among lower income earners continue to increase.[4]

We are also seeing a similar shift in the EV uptake depending on how far people commute to work. In other words, EV uptake in commuter suburbs and towns is outpacing uptake closer to cities and other workplaces. Effectively, people are viewing them as a more viable option for long commutes.

In 2021, those with the shortest commutes to work made up 26 per cent of EV ownership, in 2025, it has fallen to 23 per cent.

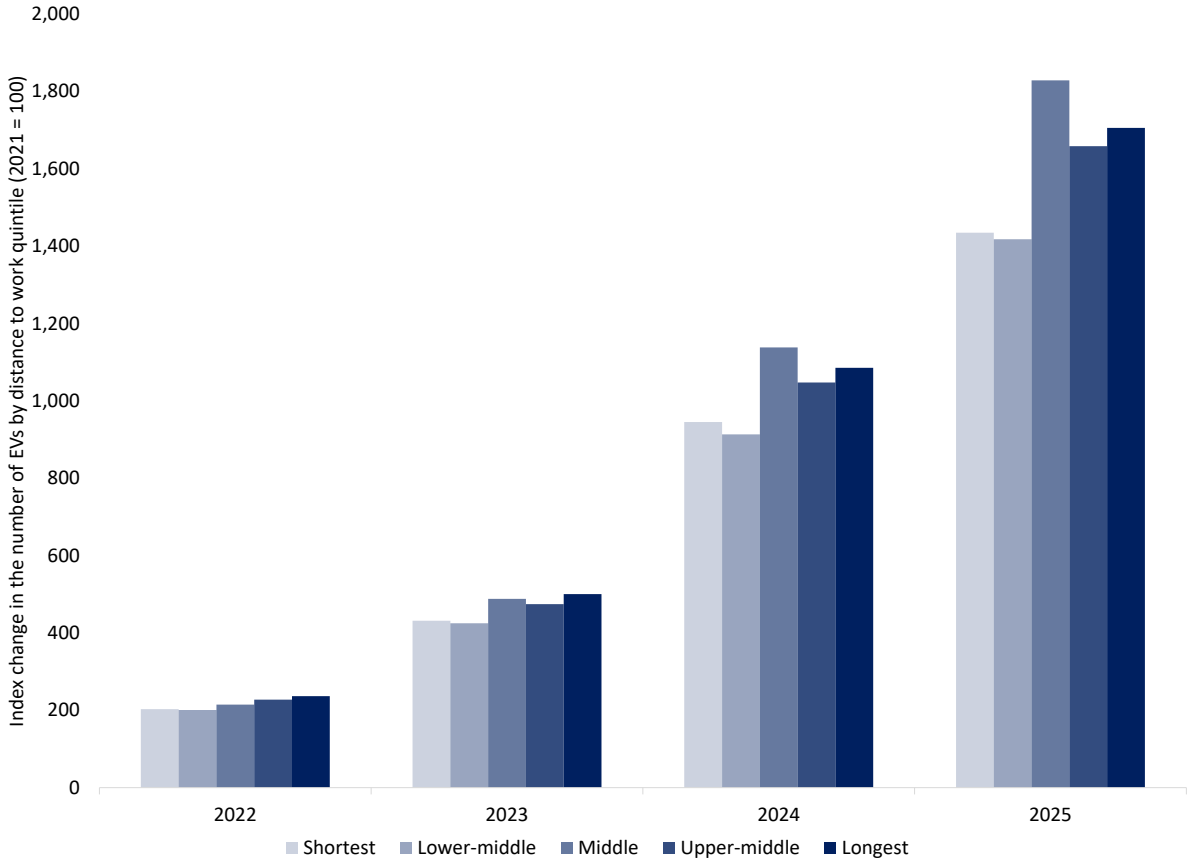
Figure 5: Change in the share of EV ownership by travel distance to work quintiles, 2021 to 2025



Source: McKell Institute, BITRE, ABS

Again, this shift is a function of EV uptake among people who have larger distances to travel to work outpacing that of those who live very close to work. Since 2021, the number of EVs owned by people who live a middle-distance has grown at a compound annual growth rate of 107 per cent per year. Among those who live the furthest from work, EV ownership has grown at 103 per cent per year, and 102 per cent per year for those who live marginally closer. Among the two quintiles that have the shortest commutes, EV ownership has grown 95 per cent per year for the shortest, and 94 per cent per year for the second shortest.

Figure 6: Index change in the number of EVs owned by travel distance to work quintile, 2021 to 2025



Source: McKell Institute, BITRE, ABS

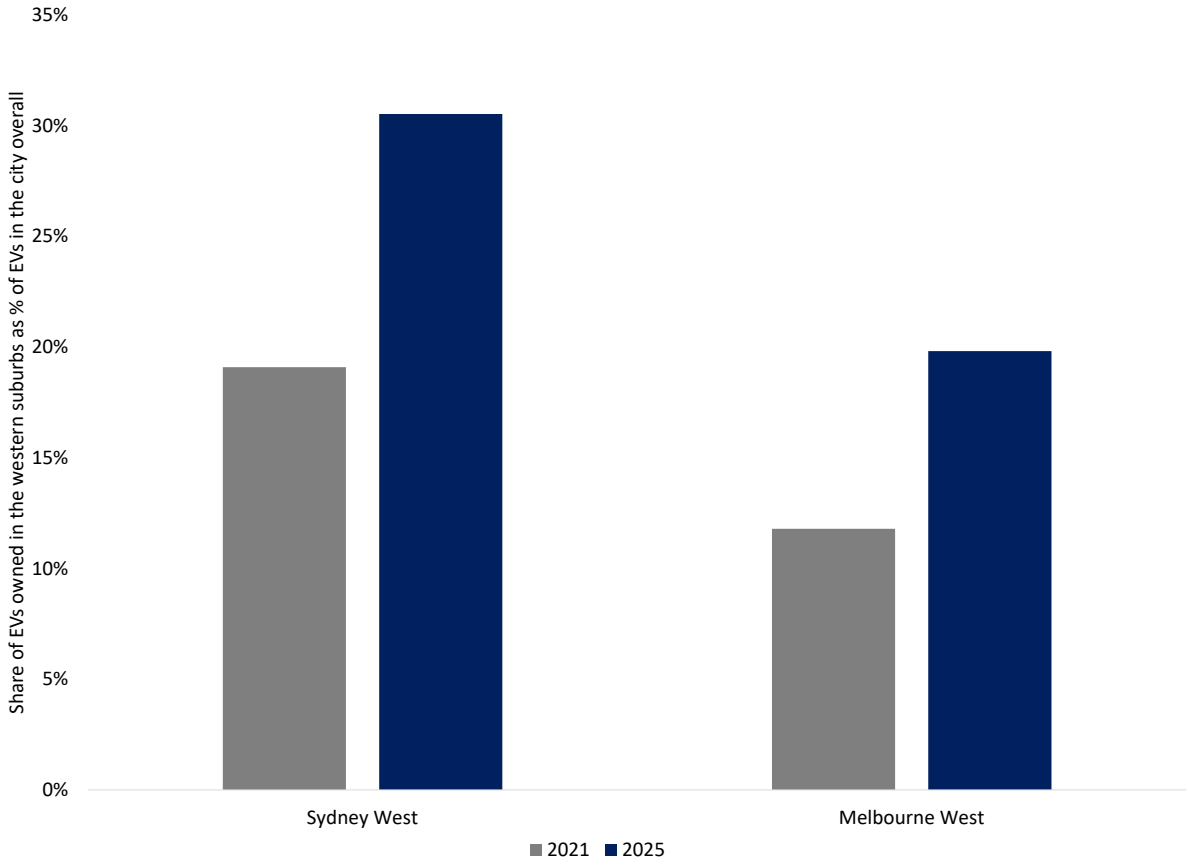
To highlight this shift in the way that EV uptake is transforming as options increase and prices drop, we can see the uptake in commute heavy areas in the western suburbs of Sydney and Melbourne outpacing that of their respective cities overall.

As a share of the total amount of EVs registered in Greater Sydney, 19 per cent were in Western Sydney in 2021. In 2025, the share of EVs in Western Sydney has increased to 31 per cent. The number of EVs registered in Western Sydney has grown at a compound annual growth rate of 119 per cent per year since 2021. For Sydney overall, EV registrations have grown at 95 per cent per year.

A similar trend can be seen in Melbourne, where the share of EVs in Western Melbourne was 12 per cent of the greater city's total in 2021. In 2025, the EVs in Western Melbourne make up almost 20 per cent of the city's total. This means that EV ownership has grown at 125 per cent per year in Melbourne's west compared to 98 per cent for the city overall.

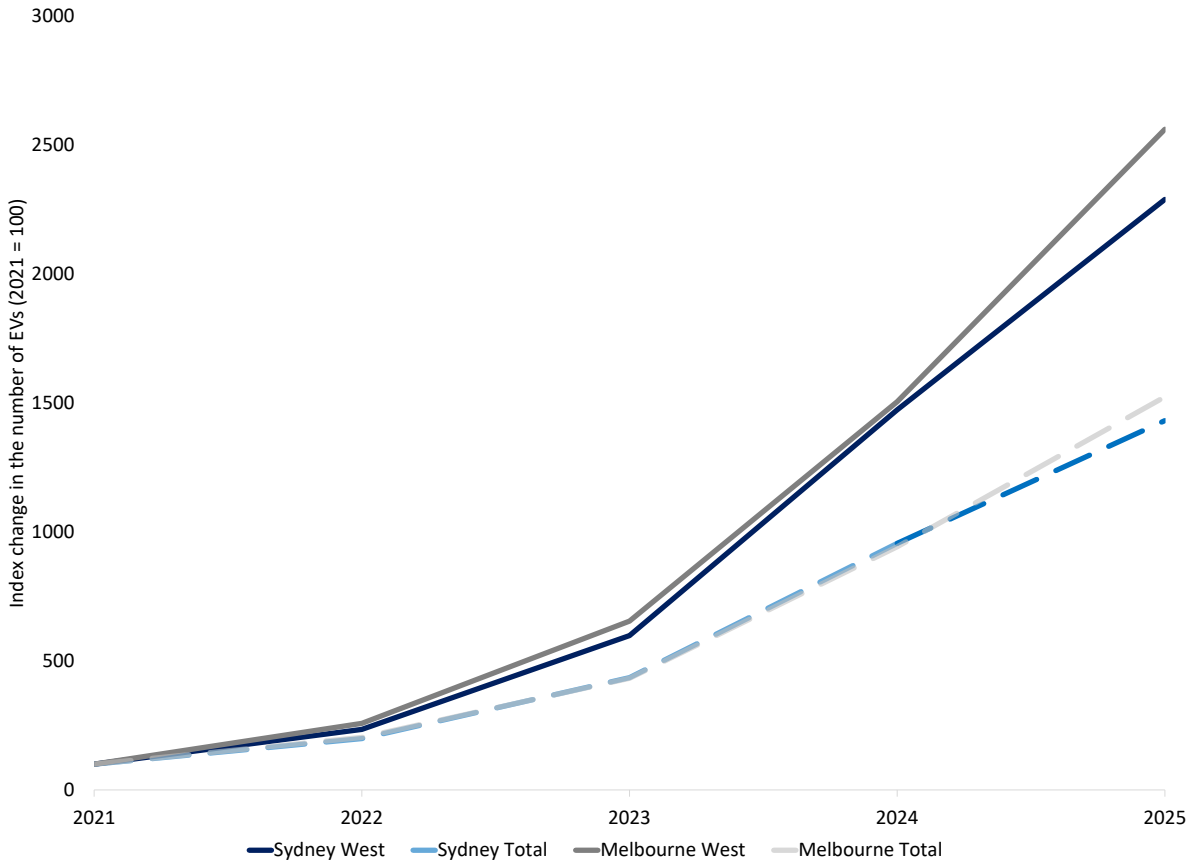
These changes have been driven by the increasing affordability of EVs since the early 2020s in Australia. In 2022, EVs were an early technology and a demand-side measure such as the Electric Car Discount was needed to ease the high upfront cost and help create a second-hand market. In 2025, the Discount and NVES have helped to grow EV supply into Australia and reduce the price premium. Despite this, EVs are on average still $9,500 or 25 per cent more expensive on 'sticker price' than their direct ICE comparison.[5] Of course, as many have discovered to their benefit, you can save up to $3,000 per year in fuel and maintenance by driving an EV. [6] In coming years, if the Discount is maintained and NVES is fully implemented, we expect price parity between EVs and ICE vehicles to be reached across all segments by 2030.[7]

Figure 7: Change in EV ownership share in Sydney and Melbourne's west compared to the rest of each respective greater metropolitan area, 2021 to 2025



Source: McKell Institute, BITRE, ABS

Figure 8: Index change over time in the number of EVs owned in Melbourne and Sydney overall, compared to the western suburbs of each



Source: McKell Institute, BITRE, ABS

The need for change

Key Points:

1. Australia has a clear national direction on emissions reduction, including a legislated net zero by 2050. Road transport is a core part of meeting those targets.[8]

2. The Climate Change Authority estimates that meeting a 62 to 70% emissions reduction target by 2035 would require **over 5 million EVs** on Australian roads by 2035.[9]

3. To achieve this, governments cannot introduce policies that risk disincentivising EV uptake, particularly among those drivers who travel the furthest.

4. Transport emissions are not solved on their own. In 2024-25, transport emissions increased, driven mainly by diesel consumption.[10]

5. This is why EV uptake matters. The Commonwealth's National Electric Vehicle Strategy links EV uptake to lowering road transport emissions and reducing vehicle running costs.[11]

6. The Commonwealth and state governments are preparing to reform the road user charge system as EVs become more prominent.

7. Federal and state treasurers have publicly agreed that reforms to road user charging for EVs can support sustainable road funding. They have also indicated that reform 'must not deter EV uptake' and should be phased.[12]

8. The High Court decision in the Vanderstock case reinforced the need for a coherent national approach led by the Commonwealth Government.[13]

Current policy settings

In 2025-26, the Commonwealth Government expects to collect around $27 billion in gross revenue (pre-fuel tax credit reimbursement) from its petrol and diesel excises.[14] In the same year, the Commonwealth Government expects to spend around $10 billion on road transport.[15]

This means that in 2025-26, only 60 per cent of the net revenue generated from petrol and diesel excises (once fuel tax credits are accounted for) will flow into Australian roads.

The excise on petroleum is one of Australia's oldest taxes, dating back to Federation in 1901. Given its longevity, it has had a long and winding history.

For some periods, the revenue generated by the fuel excise has been earmarked for funding roads and the rate of the excise was set with this in mind. This part of its history has resulted in arrangements being made for users of fuel who do not use public roads being exempt from the excise either through exemptions or rebates.

However, since 1992, there has been no formal link between the excise and road funding. Since then, overall government spending on roads has been set independently of excise revenue, and the excise has been set as simply a mechanism for generating general revenue for the government. While there is no formal link for the revenue overall, partial hypothecation was introduced in 2014 to hypothecate additional revenue from indexation into road funding. However, this only accounts for around 12 per cent of net fuel excise revenue of the government.[16]

Petrol hybrids are also challenging fuel excise revenue

The Australian Automotive Association's quarterly vehicle sales index show how Australia's vehicle mix by fuel type is rapidly changing.

Fuel Type	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Q1 2025	Q2 2025	Q3 2025	Q4 2025
ICE	82.00%	78.16%	75.47%	74.17%	75.05%	72.37%	72.03%	69.65%	66.30%
BEV	7.07%	8.72%	8.10%	6.59%	7.42%	6.29%	9.31%	9.70%	9.25%
Hybrid	9.46%	11.95%	14.93%	16.70%	14.90%	16.52%	14.87%	16.52%	19.13%
PHEV	1.47%	1.17%	1.49%	2.53%	2.63%	4.82%	3.79%	4.12%	5.32%
Hydrogen	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Data courtesy Federal Chamber of Automotive Industries and Electric Vehicle Council

Over just the past 2 years, pure petrol/diesel cars (ICE vehicles) have dropped 16 percentage points from 82% to 66% of the market while petrol hybrids have more than doubled from 9% to 19%. Electric cars such as PHEVs and BEVs have also increased substantially but in Q4, 2025, only made up 15% of vehicle sales compared to 19% for petrol hybrids.

As petrol hybrids sell more, the amount of fuel excise collected is also significantly less due to the fact they do not consume as much petrol. In Australia, the average fuel consumption of passenger cars in 2005 was 9.5L per 100kms. In 2024, it was 6.9L per 100kms. This shift towards more fuel efficient petrol cars should be celebrated for many reasons, not least the huge financial savings for Australians in the cost of transport, especially those living in the outer suburbs and driving more. However, the growth of petrol hybrids is then the real challenge for fuel excise.

The growth of petrol hybrids and their challenge to the collection of fuel excise exacerbates the longstanding problem that over the past 40 years, fuel excise has fallen as a share of government revenue — but actual collections before rebates have grown. What's holding back the budget is the ballooning cost of Fuel Tax Credits (FTCs), largely claimed by the mining sector (46.9% in 2023–24).

Fuel excise collection actually rose from $15b in 2009–10 to over $20b in 2022–23 but over the same period, FTCs grew from 32% to 37% of excise revenue. As a consequence, net excise has been flat for six years, despite rising collections. FTCs now carve a $9.6b hole in the budget each year, with mining alone pocketing nearly half (47%).

The case for change

As a result of the Vanderstock decision by the High Court of Australia, the Commonwealth are the body that must take the lead on the implementation of a road user charge in Australia.

The Commonwealth already effectively administers a road user charge system through diesel rebates for heavy vehicles that intends to tax their road usage, but nothing extra, through diesel excises.

The dramatic shift that is due to occur in climate action and the way we move around will invariably have major ramifications for the way we tax road usage. This presents a major opportunity to reform the way we charge motorists for their road usage.

The move of EVs to being broadly accessible across most income levels allows the government to delay the implementation of a road user charge to continue driving EV uptake, while also establishing a new, fairer method of taxing road use.

Getting this right will assist the government in meeting their legislated net zero targets, as well as allowing them to provide relief to households most feeling the squeeze of cost of living, with the least optionality on how they deal with it, particularly when it comes to transportation choice.

Given the minimal direct link between the revenue generated from the fuel excise, the weakening argument around equity concerns as EVs become more prevalent across the income spectrum, and that EVs in 2025 only make up around 1.2 per cent of Australia's fleet, we think there is a strong case for the Commonwealth Government to take their time in introducing a new road user charge system for drivers of EVs.

Specifically, we propose that EVs should be completely exempt from road user charges until they have reached 30 per cent of the total national fleet.

Providing a disincentive to uptake

With the continual improvement in fuel efficiency of internal combustion powered vehicles, a road user charge rate does not need to be very high before an EV driver is being taxed more per kilometre than someone who is driving an efficient petrol or diesel powered vehicle.

A Toyota Yaris Hybrid has a fuel efficiency of around 3.3 litres per 100 kilometres.[17] Currently, the fuel excise is charged at 51.6 cents per litre of fuel.[18] This means that the hybrid, but petrol powered car is charged around 1.7 cents per kilometre.

When the NSW Government attempted to introduce road user charges on electric vehicles, before being blocked by the High Court's determination on the matter, they were looking to apply a road user charge of approximately 3 cents per kilometre.[19]

Under this scenario, the vehicle powered by the internal combustion engine would have paid approximately 43 per cent less per kilometre than the entirely electric vehicle.

In an environment where the government is seeking to reduce emissions and reliance on fossil fuels, this acts as a perverse incentive to uptake.

The proposed model

Key Points:

1. We propose that a future-facing road user charge system should include progressivity as a key principle.

2. The model should seek to cost recover road funding for arterial roads.

3. Those who are on lower incomes, who are required to live further from city centres, in suburbs that are typically poorly serviced by public transport, should pay less under a future road user charge system.

4. The model should be universal in its end-state.

5. The model should be phased in incrementally as EVs become more prominent as a proportion of the national light vehicle stock.

6. The model should ensure that EV users pay significantly less per kilometre than drivers of internal combustion vehicles, especially petrol hybrids, to prevent perverse incentives in encouraging uptake.

7. Any future-facing road user charge scheme should incorporate an emissions charge to cover the cost of environmental damage, as well as road usage.

8. The model should be designed to effectively replace Commonwealth Government fuel excise revenue, but should be more explicitly tied to arterial road funding than is currently the case.

9. Funding from the new RUC should be hypothecated to funding investments in EV charging infrastructure and broader roads investment.

Reforming the way we tax road usage

Currently, the fuel excise acts as a very blunt mechanism for taxing road usage. As outlined in the Henry Tax Review, current road tax arrangements will not meet Australia's future transport challenges. Moving from indiscriminate taxes to efficient prices would allow Australia to leverage the value of its existing transport infrastructure.[20]

The shift to a future-facing road user charge presents a major opportunity for reform to the system. As such, we are proposing a model that makes the rates at which motorists are charged variable based on income.

With Australia's housing crisis encouraging urban sprawl, lower income people are being forced to live further from city centres. Accordingly, those on lower incomes are, on average, forced to drive further than those on higher incomes.

In the face of these sprawling suburbs typically being poorly serviced by public transport infrastructure, driving is often the only feasible transportation option for people who live in these communities, in contrast with those who live closer to the city centre who typically have more transport options.

The analysis above shows that EVs are fast becoming accessible for middle to low income earners who live in these areas. Increased adoption of affordable EVs by middle to low income earners is likely to be a cost reduction investment, rather than a luxury. We believe the tax system should reflect this.

How the model works

We propose that under a future road user charge system, most are charged at the same, top rate throughout the year, to ensure there is no major lump sum payment due by the vehicle owner. The system is designed to be simple and to work with existing Commonwealth institutions.

Step 1: Measure kilometres travelled

The road user charge requires a consistent method for measuring kilometres travelled. The simplest approach is odometer-based reporting at regular intervals. This avoids the political battle over privacy concerns if the government were to electronically and remotely measure how far a car has travelled.

However, in an ideal world without privacy concerns, the easiest and most effective way to administer the scheme would be direct government pulls of travel distances by each vehicle. This would also allow potential congestion charges to be incorporated into road user charging in the future.

However, given the long time horizon for a shift to this sort of road user charge model, and the ability for technology and political debate to evolve over that time, the precise mechanism is of less importance currently than the overarching principles and designs of the scheme.

Step 2: Payments

We recommend that payments are made at regular instalments throughout the year to avoid bill shock come end of financial year.

Again, to avoid bill shock come end of financial year, we recommend that most motorists are charged at the top rate throughout the duration of the year, meaning no one should accidentally underpay and result with a larger than expected tax debt at the end of the financial year.

Step 3: Incorporate progressivity

We recommend the implementation of progressivity to the road user charge system through the lodging of income tax returns. This integrates the proposed new system into the existing systems of the Commonwealth Government.

We believe this is most appropriate as it will ensure that people are charged a road user charge rate that aligns with their income for the year. For those that earn an income that lands them below the top tax rate, they will receive a road user charge rebate as part of their

tax return. For those that are liable to pay the top tax rate, they will receive no rebate and their tax return will be processed as normal.

For those who do not lodge a tax return, such as aged or disability pensioners, the lower rate would be applied automatically upon verification of their concession card status, ensuring they benefit from the progressive structure without needing to engage with the tax return process.

Step 4: Ensure fairness for low income earners and high kilometre drivers

There will be instances where people are very sure that their income will fall under certain thresholds throughout the year.

As such, to ensure that the benefit of this reform is felt throughout the year for the lowest income earners, we propose that those that can prove they are highly likely to be in a low income band (concession, pension or health care card holders) can claim the lower rate throughout the year.

We also think this should be extended to high-kilometre commercial drivers, like ride share drivers, who will be able to estimate their income for the year to apply for a lower road user charge rate to be applied throughout the year if they are confident that their income will fall under the top threshold. If their income ends up being higher, then this can be reconciled at tax time.

Details of the scheme

Revenue raising target

The purpose of any future-facing road user charge scheme is effectively to ensure that there is no major shortfall in Commonwealth funding that could then be directed towards road maintenance funding.

Currently, the Commonwealth Government's net revenue from fuel excise is around $17 billion in 2025-26.[21] However, as we have discussed in the report so far, only 12 per cent of fuel excise revenue is hypothecated back into road funding.[22]

As such, if we wanted to make the future-facing road user charge a true road user charge and effectively aim to have it cover government road funding for arterial roads, the revenue target for the charge could aim to cover the non-heavy vehicle component of nationwide arterial road funding, around $15 billion in 2023-24.[23] This is roughly equivalent to the net revenue generated for the Commonwealth Government through the fuel excise regime in the same financial year.

Accordingly, we think a revenue target of approximately $15 to $16 billion in 2024-25 dollars is a reasonable target for a new road user charge system.

Implied rates

With this revenue target in mind, this then equates to a target average road user charge in the end state of the transition from the current system to a new system of 6.44 c/km in 2024-25 dollars. This will need to be grown over time to account for inflation.

This figure is a result of the approximately $15 billion revenue target and the current 238 billion kilometres driven by passenger and light commercial vehicles in 2024-25.[24]

To equate this target average to income bands to incorporate progressivity into the system, results in estimated road user charge rates for each proposed income band in Table 2.

Table 2: Proposed road user charge rates by income band in 2024-25 dollars

Income band	Road user charge rate (cents per km, 2024-25 dollars)	Average annual bill (2024-25 dollars)
$0 to $45,000	3.74	$444
$45,001 to $135,000	6.44	$766
$135,001 to $190,000	9.66	$1,148
$190,001 and over	12.88	$1,531

Source: McKell Institute, ATO, BITRE

Of course, the proposed road user charge would not come into effect until EV penetration hits 30 per cent of the total fleet, so each of these rates would need to be recalibrated for inflation and changes in target funding.

Treatment of business road use

Under the current fuel tax system, businesses operating light vehicles on public roads generally pay fuel excise in the pump price and are not eligible for fuel tax credits for that on road light vehicle use. Heavy vehicles are treated differently through the fuel tax credit system, where credits are reduced by a notional road user charge. Consistent with the current framework, the proposed light vehicle RUC would apply to business and fleet owned light vehicles on the same basis as other vehicles (with enterprise reporting and consolidated payment options).

As the progressive rate structure is linked to personal income, business and fleet-owned light vehicles would be charged at the standard top rate of the road user charge. This is consistent with the current system, where businesses pay the full, flat rate of fuel excise on light vehicle on-road use with no concession applied.

Additional charging

CO2 charging

To ensure that there continues to be incentives pushing people away from fossil fuel powered vehicles towards EVs under universality, we propose that not only are road maintenance costs covered through the road user charge, but so are CO2 emissions.

Accordingly, we propose that an additional "CO2 surcharge" be applied to the road user charge rates of those still driving fossil fuel powered vehicles once universality in the scheme is applied and the fuel excise has been wound back.

We envisage that this would be in the vicinity of around 0.5 to 1.5 cents extra per kilometre driven, depending on the vehicle emissions data for grams of CO2 per kilometre. We calculate

this using Infrastructure Australia's guide to assessing greenhouse gas emissions central scenario cost estimates for emissions for 2023-24.[25]

Vehicle weight

We also envisage that a future-facing road user charge may incorporate vehicle weight to reflect the damage to roads. While this does not factor into the rates displayed above, we envisage that the scheme may apply discounts or surcharges to the road user charge based on how far from the average vehicle weight the registered vehicle is. In other words, vehicles lighter than average receive a discount to their rate in a manner that's proportional to the benefit to the road network, and vice versa for vehicles that are heavier than the average.

Phase in process

We propose that this road user charge model is applied universally once in full effect. However, given pure EV penetration to the total Australian fleet of light vehicles is still negligible, the transition to the proposed universal system can and should take place as the prevalence of EVs increases over time.

The reasons for staging the phase in are twofold:

1. Early implementation of a road user charge on EVs will slow adoption
2. The revenue stream drying from fuel excise is not yet a problem for the Commonwealth Government, and will only become a problem over time.

To account for the uncertain path of EV uptake, we propose that the road user charge system be phased in progressively as EV penetration of the total vehicle stock reaches certain milestones.

To stick to the principle of universality, but to also prevent the issues of double charging (charging motorists the new road user charge and fuel excise at the pump), we propose that the road user charge only applies to EVs until the scheme has reached its end-state, while ICE vehicles continue paying fuel excise during the transition. Once the scheme has been fully implemented i.e. EV penetration has reached 75 per cent of the national fleet, we then

recommend that the road user charge be applied to all vehicles, and the fuel excise be wound back.

Table 3 shows the suggested path for phasing in of road user-charging.

Table 3: Suggested road user charge phase in path

EV share of registered light vehicle fleet	Phase-in factor (% of end-state rates)	Coverage (who pays in this phase)
Below 30%	0% (no road user charge is applied to electric vehicles during initial uptake)	No vehicles
30% to 45%	25%	EVs only
45% to 60%	50%	EVs only
60% to 75%	75%	EVs only
Above 75%	100%	Universal: all light vehicles

Comparison with other models

Both the UK and New Zealand have moved (or are moving) toward distance-based charging for EVs.

Both models do not incorporate progressivity, as the model does here. They are both primarily designed around a flat (or near-flat) per distance charge with limited differentiation.

Our model is different in three key ways:

1. It is explicitly progressive
2. It is phased in over time
3. It is universal at end state, with fuel taxes wound back to avoid double charging.

New Zealand

New Zealand has for some time operated a Road User Charge system for vehicles that don't pay fuel excise in the same way. From 1 April 2024, NZ ended the RUC exemption for light EVs and brought EVs and plug-in hybrids into the RUC system.[26]

The New Zealand system also differs from the one proposed where drivers pre-purchase RUC in blocks. This is enforced through odometer readings and periodic inspections.[27] EVs are charged at a rate of $76NZD for 1,000km and PHEVs are charged at $38NZD for 1,000km.[28] To put this into context of what we're proposing, this is 7.6 cents and 3.8 cents, respectively.

United Kingdom

The UK published a consultation paper in November 2025 on electric Vehicle Excise Duty (eVED), which is a proposed new mileage-based charge for EVs and plug-in hybrids, intended to start from April 2028.

The consultation frames eVED as a response to the fact that drivers of cars using fossil fuels pay "usage tax" via fuel duty at the pump, while EVs make "no equivalent contribution". While the UK Government intends to bring in an EV charge, the paper notes that eVED is still designed to maintain incentives to switch to EVs by setting the EV rate at about half the equivalent fuel duty rate, and a further reduced rate for PHEVs.[29]

There are a lot of details that remain to be ironed out. However, eVED is designed to operate alongside the existing vehicle tax system, rather than creating a new separate system. The consultation also explicitly notes that it will not require trackers.

The main points of differentiation between what we know about the UK model, and what we are proposing are that the UK scheme is not intended to be universal, there is not progressivity involved, their model simply seeks to ensure consistent revenue, rather than overhaul the scheme entirely.

Alternative approach: A universal flat-rate road user charge

An alternative reform model has also been developed in consultation with stakeholders. Rather than a distance-based, income-differentiated charge, this model proposes a universal $600 annual road usage charge per light vehicle from 2031, applying equally to petrol, diesel, hybrid and electric vehicles.

Under this approach, the existing fuel excise would remain in place alongside the new charge. ICE vehicles would continue paying fuel excise on petrol and diesel, while EVs would continue paying GST and other taxes embedded in electricity pricing. The road usage charge would sit on top of these existing energy taxes as a transparent contribution to road infrastructure.

The model's key design features are as follows. A flat $600 annual charge across approximately 20 million light vehicles would raise roughly $12 billion per year. The remaining gap to current net fuel excise revenue of approximately $17 billion would be covered by ongoing fuel excise paid by the ICE vehicles still on the road. As EV adoption grows and fuel excise revenue gradually declines, the stable vehicle-count-based revenue from the flat charge would provide a predictable funding floor.

This model delays implementation to 2031 to align with expected EV price parity in the late 2020s, preserve operating cost advantages for EVs during the critical uptake period, and allow the second-hand EV market to mature. Since the charge would be collected through state registration systems, concessions could be applied for lower-income households, such as those holding Medicare cards.

This approach offers simplicity and avoids the need for distance measurement infrastructure. However, unlike the progressive model proposed in this report, it does not differentiate by income or distance travelled, meaning higher-kilometre, lower-income drivers would pay the same as low-kilometre, high-income drivers.

Conclusion

EVs are fast becoming accessible to people on middle to low incomes in Australia. They are no longer a status symbol, and are instead a useful investment for people to reduce their costs in the face of high fuel prices.

This is evident in EV registration data, which shows that EV uptake is growing fastest among middle income areas, and are growing at the same rate for the top and bottom of the income distribution.

We are also seeing increased uptake among those who travel the furthest to work, reflecting the increased accessibility of EVs and the improving technology and range to facilitate long commutes each day. These trends are diminishing the equity concerns around EV owners being high income earners who are not paying their fair share for road usage.

Accordingly, we recommend that the Commonwealth Government take the transition to EVs as an opportunity for fundamental reform of the way we tax road usage, and in this, we recommend that progressivity be introduced to any future road user charge system on EVs through the income tax system.

We think the transition is a great opportunity to create a road user charge system that's more equitable, encourages more efficient usage of our roads, and by delaying its implementation, will not discourage the continued uptake of EVs in Australia.

This report also presents an alternative reform pathway: a universal flat-rate annual road usage charge from 2031. This approach offers a simpler implementation model while retaining EV incentives during the critical adoption phase. Both models share common principles: protecting revenue, preserving EV uptake, and ensuring fairness. The choice between them involves trade-offs between administrative simplicity and the equity benefits of income-based differentiation.

Appendix: Methodology

Data sources

- Bureau of Infrastructure and Transport Research Economics (BITRE), *Road Vehicles Australia (2021 – 2025)*
- ATO Taxation Statistics, *table 25 (individuals by postcode)*
- ABS, *geographic correspondences (2021)*
- ABS, *2021 Census, distance to work by postal area.*

Method overview

1. Attach ATO income data by postcode to BITRE registered vehicle by motive type and postcode data. Calculate income quintiles and assign postcodes Q1, Q2, Q3, Q4, Q5 based on median income in the area.
2. Attach a geography denotation based on a defined western suburbs categorisation for the major cities.
3. Flow this through to a clear results table that shows EV ownership by income quintile, where growth rates and shares are then calculated.
4. The same is then done for distance to work data from the 2021 Census.

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