

Why a shift to basing vehicle registration fees on emissions matters for Australia

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The ACT is changing how it [calculates car registration fees](#). Instead of being based on a car's weight, the fee the owner pays will be based on the greenhouse gas [emissions](#) it produces.

Up to now, owners of cleaner but typically heavier [electric vehicles](#) have

paid more for registration than those of high-polluting but lighter vehicles powered by petrol or diesel engines. Emissions-based fees will reverse that situation.

The ACT was already offering two years of [free registration for electric vehicles](#) up to mid-2024. Under the [new policy](#), from May 25 this year, owners of new and used electric vehicles will pay a discounted fee once their two years of free registration is over. The remaining car fleet will transition to the new system on July 1 2024.

An emissions-based registration fee is a sensible policy worth adopting Australia-wide. It's already in place in many other nations that have much higher uptakes of electric vehicles.

Why is this policy change important?

Transport is Australia's [third-largest](#)—and fastest-growing—source of [greenhouse gas emissions](#). Cars produce about half of these transport emissions.

Most of Australia's vehicles use polluting fossil fuels. A switch to electric vehicles, coupled with a transition to [renewable energy](#), is vital for Australia to meet its [commitments](#) to tackle climate change.

One of the quickest ways to reduce transport emissions is to accelerate the current slow uptake of electric vehicles. In 2022, Australian sales totaled [39,353](#). There are now about [83,000](#) light electric vehicles on our roads.

Although sales almost doubled between 2021 and 2022, they represented only [3.8% of all new vehicle sales](#) in 2022. That's well below the [global average of 12-14%](#). And it's way behind world leader Norway where [87%](#) of cars being sold now are electric.

In China, about 5.67 million electric cars, or a [quarter](#) of all new cars, were bought in 2022. By the end of the year, [35% of the cars](#) being sold were battery-powered or plug-in hybrids. [In the UK](#), more than 265,000 electrical vehicles were registered in 2022, a 40% increase on 2021.

The [global outlook](#) for electric vehicles remain strong. Total sales of 8.6 million vehicles are expected in 2023. That's expected to rise to almost 12 million by 2025.

Australia will pass the milestone of 100,000 electric vehicles on the road this year. But that's well short of the target of [1 million by 2027](#) set by an industry alliance headed by the [Electric Vehicle Council](#), and the Albanese government's target of [3.8 million by 2030](#). Best practice policies will help to accelerate the transition.

The importance of the new policy is that it will help to reduce costs for buyers. Cost is one of the main barriers to buying an electric vehicle in Australia. In 2022, less than 20% of electric vehicles sold for less than A\$65,000. While some Australians are willing to pay the hefty price tag, it remains an obstacle for others.

Government interventions play a big role in reducing purchase costs and annual fees. Higher taxes on polluting vehicles are also likely to impact [consumer choice](#) so more drivers make the switch.

Electric vehicle registration discounts and tax policies

CO2-based electric vehicle tax benefits in select EU countries (2022)

Country	Acquisition	Ownership
Austria	VAT deduction and exemption from tax for zero-emission cars	Tax exemption for BEVs
Bulgaria		Exemption for electric vehicles
Croatia	No excise duties for electric vehicles	Exemption from special environmental tax for EVs
Cyprus	Exemption for vehicles emitting $\leq 120\text{g CO}_2/\text{km}$	Minimum rate for vehicles emitting $\leq 120\text{g CO}_2/\text{km}$
Finland	Zero-emission passenger cars and vans are exempt from registration tax	
Hungary	Tax exemptions for BEV and PHEV cars	Exemptions for BEV and PHEV cars
Latvia	Exemption from registration costs for BEV vehicles (first registration)	Exemption for vehicles emitting $\leq 50\text{g CO}_2/\text{km}$
Luxembourg	50% off administrative tax	Minimum rate of €30 per year for zero emission vehicles.
Malta	Minimum rate for vehicles emitting $\leq 100\text{g CO}_2/\text{km}$	Minimum rate for vehicles emitting $\leq 100\text{g CO}_2/\text{km}$
Netherlands	Exemption for zero-emission cars	Exemption for zero-emission cars. 50% tariff for PHEVs
Portugal	BEVs: Complete exemption	Exemption for BEVs
Romania		Exemption for electric vehicles
Sweden		Low annual road tax (SEK 360) for zero-emission vehicles and PHEVs

Adapted from European Automobile Manufacturers' Association and other publicly available information. Legend: BEV: Battery Electric Vehicle; HEV: Hybrid Electric Vehicle; PHEV: Plugin Hybrid Electric Vehicle; VAT: Value Added Tax

Table: Swinburne University of Technology. • Source: ACEA, 2022 • Created with Datawrapper

Credit: The Conversation

What is best practice in emissions-based vehicle policies?

Policies that reduce registration fees and provide tax benefits to electric vehicle owners have been widely implemented overseas during the past few decades.

Norway first introduced registration fee [exemptions](#) in 1990. This, along with a range of other measures and incentives, helped to [increase electric vehicle sales](#) to 50% of the market in 2020, and 79% by 2022. No other nation comes close.

In the European Union, 21 of 27 member countries levied car taxes partially or totally based on [CO₂ emissions](#) in 2022.

The EU-wide [policies](#) provide a range of financial benefits to owners of electric vehicles. They apply to both vehicle acquisition (value-added tax, sales tax, registration tax) and vehicle ownership (annual circulation tax, road tax).

How much difference can these policies make?

A number of studies of the effectiveness of CO₂-based car taxation policies have found evidence they contribute to lowering transport emissions.

For example, Ireland first introduced an emissions-based car taxation policy in 2008. An [analysis](#) of its impacts found it produced a cumulative CO₂ saving of 1.6 million tons from 2008 to 2018.

In 2018, Irish-licensed vehicles traveled a total of [47.5 billion](#) kilometers. The study found average carbon intensity of the car fleet had reduced from 189gCO₂/km in 2007 to 164gCO₂/km in 2018. It would have been 168gCO₂/km without the tax intervention, according to the analysis.

A similar [study](#) that evaluated Norway's CO₂-based taxes found them to be powerful policies applied aggressively at levels ten times the [EU Emissions Trading System](#) quota prices. The analysis found these policies also delivered other improvements, with the largest impacts being reductions in air pollution.

What else needs to be done in Australia?

A measure such as introducing an emissions-based registration system is a step in the right direction. But to be effective it needs to be part of a holistic national effort to accelerate adoption of electric vehicles.

In 2023, Australia needs to speed up efforts on two major initiatives that were introduced in 2022.

The [federal government](#) began consultations on Australia's first [National Electric Vehicle Strategy](#) last September. More than 500 [submissions](#) were received, representing the views of over 2,150 Australian individuals and organizations.

Commitments were also made to develop an ambitious set of mandatory [fuel-efficiency standards](#) to help increase the supply of electric [vehicle](#) models.

Both initiatives are key policy pillars of an effective strategy to reduce transport emissions.

Building on this momentum and urgently implementing bold policies will demonstrate Australia's commitment to embrace the transition to electric vehicles and accelerate emission reductions.

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