



4.3 Transport

Case study 7: EV subsidies (Norway)

Description of the policy instrument

With a population of just over five million, Norway has one of the highest GDP levels per capita in the world as well as one of the most equal societies. It also has the highest level of EV ownership. In March 2022, more than 86 per cent of new car sales were of battery electric vehicles (BEV).¹⁹⁹ The Norwegian parliament has announced that, from 2025, all newly purchased cars should be net zero (electric or hydrogen).²⁰⁰

This success story was enabled by several factors, including a wide range of subsidies. From the early 1990s, Norway has been developing a set of financial incentives, primarily in the form of tax exemptions and other cost-reduction measures. The fact that the Norwegian state applies a relatively high level of taxes, compared to other parts of the world, to an extensive range of goods and services, alongside income, means that tax deductions constitute a powerful economic incentive for businesses and households.

The country's first regulation, in 1990, on the electrification of private cars abolished the import tax on EVs. From the 2000s, EVs became exempt from VAT (25 per cent). For a long time, no road tolls, ferry charges and parking fees had to be paid for them, although recently these regulations have changed to a '50 per cent rule', whereby ferry and road charges for EVs are allowed but must remain below 50 per cent of the charges that apply to petrol vehicles.²⁰¹


New taxes that were introduced based on the nitrogen oxide (NO_x) and carbon dioxide (CO₂) emissions of the vehicles do not apply to EVs, further increasing the financial incentive for choosing them. Moreover, these taxes are progressive, meaning that the larger the emissions levels, the more expensive additional emissions units become, making the most polluting cars particularly expensive to run.

In summary, between the 1990s and 2022, the EV adoption rates in Norway increased to such an extent that the capital investment needed to purchase an EV is now similar, or even lower, than the investment needed to purchase a car with an ICE. Moreover, when considering the impact of the various tax incentives and other fee exemptions and rate reductions, the operating costs of EVs were substantially lower even before the recent spike in petrol and diesel prices.²⁰²

Due to the success of the combined measures to incentivise EV take-up, some subsidies and other benefits are now being phased out. From 2023, a moderate VAT rate could potentially be introduced for the most expensive EVs,²⁰³ and municipalities will be able to remove EV drivers' right to access bus lanes or apply it only to EVs that carry more than one passenger. Free ferry and road use has also been largely replaced by a reduced fee, while some other exemptions, such as the road traffic insurance tax, may be removed altogether²⁰⁴ because of their adverse impact on the state tax revenue.

Why did it work or not work?

There are several enabling conditions which helped the measures, intended to incentivise EV uptake in Norway, to succeed. To a great extent, the suite of policy measures worked so well because they encompassed various types of instruments intended to reduce both the capital investment as well as operating costs.

-  One key factor was that Norway adopted the view that 'polluters must pay' much earlier than most other European countries. Because of high taxes, the government had the resources to provide subsidies and the tax exemptions applied to EVs presented a greater financial incentive to consumers.

The Norwegian government also took early steps to address the non-cost barriers to EV adoption. The EV charging infrastructure in Norway is one of the best in the world. In 2022, around 21,000 charging points were available across the country, compared to only 708 public charging points in Finland, which has a similar land area, or 16,500 in Sweden, which is 60,000 km² larger.²⁰⁵ For long-distance travelling, fast charging systems have been installed along all main roads, and drivers are both able and willing to pay more for these. Between 2017 and 2021, charging rights were defined, meaning that people living in apartment buildings were granted the legal right to charge their EVs at their place of residence, effectively forcing all apartment buildings to make charging points available for residents.²⁰⁶

The 'neighbourhood effect' may have incentivised EV take-up in Norway, along with peer-to-peer communication.²⁰⁷ It is also worth noting that the vast majority of Norwegian power supply already comes from renewable energy sources, making EVs a truly environmentally friendly option for consumers.²⁰⁸ This could be a key factor for some consumers, who find it difficult to accurately estimate the relative carbon emissions from lightweight ICEs against an EV in contexts where a large share of the power supply still comes from fossil fuels.

✘ However, critics claim that reduced taxes have adversely affected tax revenue. This is the reason why some exemptions, such as on VAT for the most expensive vehicles, have been suspended. Moreover, the large subsidies for EVs have resulted in a situation where consumers are incentivised to continue to drive private cars, even in urban areas, instead of switching to public transport. Even the Minister of Transport said that people should not use their EVs in areas that are well connected by public transport, or which have extensive walking and cycling infrastructure for short journeys.^{209,210,211}

Key learnings

The Norwegian subsidies and tax deductions aimed at increasing EV uptake can be regarded as a success. The main contributors have been emissions taxes on traditional cars, charge reductions on ferries and roads for EVs, and other forms of financial and fiscal incentives. Moreover, Norway's EV charging infrastructure is one of the best in the world and the electricity comes almost exclusively from renewable energy sources. Other enabling conditions were the social influence, neighbourhood effect and peer-to-peer communication.

