Charging ahead: BEV adoption in Norway

David Leah, Senior Analyst

For many years, Norway has been hailed as the world leader in Battery Electric Vehicle (BEV) adoption, and rightly so, considering that, proportionally, BEV sales in Norway are higher than anywhere else. Over half of all new vehicles sold in Norway so far this year have been BEVs, with the Netherlands a distant second (excluding Iceland), on a share of around 15% year-to-date.

High levels of disposable income go some way to explaining why Norwegians buy Premium Vehicles, such as BEVs, but are not reason enough to justify the high percentage of BEV sales, given that consumers could just as easily opt for a traditional internal combustion engine vehicle (ICEV).

The favourable conditions for the adoption of BEVs on both the supply and demand side are a more plausible explanation, particularly as they tie in with Norway’s broader climate change ambitions. On the supply side, affordable and 100% renewably sourced electricity strengthens the total cost of ownership and environmental benefits for consumers. The charging network has been scaled up nationwide, and many Norwegians have the space for home charging.

On the demand side – and arguably the greatest impetus – are both direct and non-direct incentives. For instance, the import/registration tax system (which is based on vehicle weight, CO2 and NOx levels) exempts Zero Emission Vehicles (ZEVs), thus offering a saving of around €3,000 to €40,000 compared with the worst-case ICEV. And ZEVs are not subject to the standard 25% VAT for new vehicle purchases, often making it cheaper to buy a ZEV than a comparable ICEV.

But can the current policies sustain the momentum for Norway to achieve its non-binding goal that all new vehicle sales will be ZEVs by 2025?

In short, not quite. The main limiting factor is utility. BEVs do not meet the needs of every driver, be it due to personal preference, or to the current technological limitations of a ZEV versus an ICEV. Range and charging times are not yet suitable for long-distance drivers, or those who prefer to refuel in a matter of minutes (although improvements are being made in this area). Drivers complain of inconsistent charging availability and protocols, having to set up accounts and hold cards for different suppliers, and other impracticalities that make charging an unnecessarily complex experience. These issues are improving and will continue to do so, but the fact remains that not all consumers have the ability to charge a vehicle at home.

Nor should the significance of incentives be overlooked. History has shown that growth would stall without them. That being said, as the price gap between BEVs and ICEVs narrows, the importance of incentives will diminish.

Overall, our baseline forecast is that, by 2025, virtually all new vehicle sales (registered for personal use) in Norway will be electrified. BEVs will account for the lion’s share, at around 90%, with hybrids making up most of the remainder. Ultimately, utility will improve to the extent that BEVs will cover the remaining driver usage cases.