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A More Flexible Road to Zero Emissions Vehicles in the UK and the EU

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Several recent changes of law and policy in the EU and the UK have resulted in a more flexible approach to the adoption of zero emission vehicles (ZEVs).

In the UK, the government is maintaining its commitment that all new cars and vans that are sold in the UK must be zero emissions at the tailpipe by 1 January 2035. Whilst the UK government announced that it is delaying its plans to ban the sale of diesel and petrol cars and vans from 2030 to 2035, the previously announced targets for the proportion of new car and van sales to be ZEVs remain in place. It is just that from 1 January 2030 to 31 December 2034, diesel and petrol cars and vans may now be sold alongside hybrid powered cars and vans in the UK.

Whilst several vehicle manufacturers and other groups have expressed disappointment to the relaxation of the ban on the sale of new diesel and petrol cars and vans from 2030 to 2035, the change does align the UK with the EU.

However, it is worth noting that whilst a ZEV vehicle must have 0 grams CO2/km, it does not necessarily need to be a battery vehicle. In addition, this standard may also be met by hydrogen options (both for fuel cells and combustion engines) and by synthetic fuels. Whilst it is currently though that battery electric options will dominate for new cars and vans in developed countries, there are a number of other options and some of the alternative options will be far more practicable in other parts of the world. In particular, options exist to use hydrogen to power batteries or combustion engines and synthetic fuels are being developed for use in existing combustion engines without any adaptation. All of this will be highly relevant to vehicle manufacturers designing vehicles in global markets.

Looking at the position in more detail, the following points are worth highlighting:

1. In the UK, with effect from 1 January 2024, vehicle manufacturers have been set the following targets for the sale of ZEVs as a proportion of their car and van sales in the UK in each year up to 2035:

Year	Cars	Vans
2024	22%	10%
2025	28%	16%
2026	33%	24%
2027	38%	34%
2028	52%	46%
2029	66%	58%
2030	80%	70%
2031	84%	76%
2032	88%	82%
2033	92%	88%
2034	98%	94%
2035	100%	100%

2. The UK targets are set at more ambitious levels than any other country and objections regarding the 2024 start date were ignored on the basis that the UK government believes that enough prior notice had been given as to the intention to regulate in this area.
3. The targets cover England, Scotland and Wales. Application in Northern Ireland awaits approval by the Northern Ireland Assembly.
4. In the European Union, the targets set for 2030 are 55% for cars and 50% for vans. These targets are lower than have been set for the UK. Hence, despite the UK Government relaxing the ban on the sale of new diesel and petrol cars to 2035, the UK still has more aggressive sales targets for the uptake of ZEVs than apply in the EU or elsewhere.

5. The UK targets apply to ZEVs. Here, a ZEV need not be a BEV. Rather, as noted above, there are various options by which a vehicle may be regarded as a BEV. In particular, a vehicle may be powered by hydrogen which is seen as a more practical solution for trucks and larger SUVs etc. In addition, it is worth noting that the EU have recently said that combustion engine cars may be sold after 2035 if they are only able to use carbon neutral fuel. This exemption will force manufacturers to develop a device that will distinguish e-fuels from existing fossil fuels when drivers fill up their tanks. The UK's ZEV Mandate is already open to this option if the synthetic fuel achieves the required 0 grams CO2/km threshold.

6. In the UK, if a manufacturer sells more ZEVs than the target, it will receive additional allowances that it may sell, bank (for up to 3 years) or convert. In addition, if a manufacturer sells fewer ZEVs than its target level, it can buy, borrow (in 2024 – 2026 subject to caps) or use other banked allowances or it may be able to convert other CO2 emissions allowances or, as a last resort, it can make a compliance payment. Compliance payments for cars are set at £15,000 and, for vans, £9,000 in 2024 rising to £18,000 from 2025. The compliance payments are deliberately set high whilst the caps on borrowing, as a percentage of the ZEV allowance are set at:

Year	Cars	Vans
2024	75%	90%
2025	50%	50%
2026	25%	25%

7. In the UK, CO2 emissions allowances will continue as per the levels set in 2021 up until 2030. If a manufacturer beats its target, it can sell or convert any spare allowances. Similarly, if a manufacturer misses its target, it can buy allowances or convert other ZEV allowances or, as a last resort, make a compliance payment.

8. In the UK, the following derogations apply:

    a. Special purpose vehicles are exempt, although any ZEV versions are eligible for credits.

    b. Manufacturers selling less than 1,000 vehicles are automatically exempt from both the CO_2 emissions scheme and the ZEV mandate until the end of 2030 – the micro volume derogation. In addition, later consideration will be given to extending the derogation to 31 December 2034.

    c. Manufacturers selling fewer than 2,500 vehicles (but more than 999) can apply for a small volume derogation, which will last until 31 December 2029 with a transition year in 2030.

9. By contrast, in the EU:

    a. Small manufacturers who sell between 1,000 to 10,000 cars per year in the EU or 1,000 to 22,000 vans per year who apply for derogations will be exempt from the targets till the end of 2035;

    b. Niche manufacturers who sell less than 1,000 vehicles annually in the EU from 2035 are to be exempt from the ban on the sale of new ICE vehicles from 1 January 2036;

    c. Complex fleet target rules apply across all vehicles produced by a manufacturer

    d. More relaxed rules will apply to trucks reaching out to a 90% emissions reduction by 2040.

10. In the UK:

    a. The minimum range for a ZEV was reduced from 120 to 100 miles.

    b. Vehicle batteries should have 65% capacity after 8 years/100,000 miles with a minimum of 3 years and 60,000 miles for the rest of the vehicle.

    c. ZEV cars and vans must not emit more than 0 grams CO2/km and may take the form of any drivetrain technology. Accordingly, hydrogen, hydrogen combustion or other sustainable fuels are an option as is also the case in the EU.

    d. For the purposes of the targets, manufacturers who are in common ownership to be treated as part of a closed pool and as a single participant for both the ZEV Mandate and the non-ZEV CO2 emissions standards. Thus, manufacturers in the same group can progress at varying paces so long as some manufacturers in the group over perform.

    e. New manufacturers who enter the UK market for non-ZEVs will receive non-ZEV CO2 targets based on the average of non-ZEV sales in the previous year.

    f. Over compliance re the ZEV targets can be used as credits for the non-ZEV CO2 targets so as to encourage a faster adoption of ZEVs. In addition, over compliance re the non-ZEV CO2 targets can be used as credits for the ZEV targets.

    g. The ZEV mandate will remain under continuous review to ensure that it drives the adoption of ZEVs.

    h. As in the EU, the need for investment in the charging infrastructure is recognised.

    i. For those companies operating car share clubs, a number of minimum operator and service standards and reporting requirements are introduced.

Additional Points

1. In the UK and elsewhere, concerns over the range of electric vehicles, the degradation in the range of electric vehicles over time and a lack of charging points (particularly in rural areas and for those who can not charge at home) remain real concerns and may dent consumer confidence to adopt electric vehicles at the rate required for manufacturers to achieve the ZEV Mandate targets.
2. The UK government points to evidence that cars and vans accounted for 18% of the UK's greenhouse gas emissions in 2021 and that ZEVs are expected to generate 81% less emissions than ICE powered cars and vans when taking into account the manufacturing process. Hence, the switch from ICE to ZEV is seen as a critical contributor to preventing further climate change.
3. Following pushback from manufacturers regarding the cost of Euro 7 compliance while also investing in ZEVs, the European Parliament is backing a version of the Euro 7 pollution standards that would keep the current Euro 6 emissions standards in place until 1 July 2030 for cars and vans and until 1 July 2031 for buses and trucks. The European Commission's original proposal, released in November 2022, had set expiration dates of 2025 for cars and 2027 for trucks.
4. Despite recent relaxations, the UK and the countries of the EU will be the first countries in the world to phase out the sale of new diesel and petrol cars and vans by 2035.
5. As of October 2023, the UK has surpassed 50,000 electric vehicle charging points.
6. While synthetic fuels are still burnt in a traditional engine and, therefore, release emissions into the atmosphere, proponents argue their production process can be climate-neutral and offset the pollution.

For more information, please contact Simon Jones.

Simon Jones
Partner, Birmingham
T +44 121 222 3412
E simon.jones@squirepb.com