ENERGY · PAPER 08

Transport and Heat Demand

Removing sales quotas and boiler mandates while keeping new demand off the winter peak.

6 min read · October 2026

Households and businesses should choose their cars and heating on cost and convenience. Sales quotas and fixed end-dates push electricity demand up on a political timetable, while the generation, networks and fuel needed to serve it arrive on an engineering one. When the two diverge, the bill and the security risk fall on everyone.

We will remove sales quotas and fixed end-dates for new cars and vans, and mandates that force the replacement of working gas boilers. Electrification continues wherever it is cheaper or preferred; nothing in this paper restricts electric vehicles or heat pumps. Whatever electrification happens should add as little as possible to the winter peak, so smart charging stays the default and heat pumps come with efficiency standards.

The problem we are trying to fix

Demand is the largest single driver of the programme's supply requirement. In the accompanying model, the proposed programme sized to the three-hour reliability standard needs about 22 GW of new gas engines and turbines by 2050 under NESO's Falling Behind pathway, and about 36 GW under Holistic Transition. Its 2030–2050 cost is about £940bn and £1,015bn respectively. Falling Behind reflects slower electrification generally, not vehicle or heat policy alone, but it shows what moderating demand is worth.

Mandates also concentrate risk in time. The car mandate requires 33% zero-emission sales in 2026 against about 26% achieved, rising to 80% in 2030 under the current schedule; a consultation on easing it closes on 23 October 2026. Heat policy aims for more than 450,000 heat-pump installations a year by 2030 and requires zero-carbon heating in new homes under the Future Homes Standard. [1–3]

Large computing loads are independent of these choices. They are handled through the connection routes in UK Electricity Market Reform: self-supply counted once, non-firm connection, or a firm connection that pays for the reinforcement it triggers.

Our policy and its boundary

Remove vehicle sales quotas and end-dates, and boiler-replacement mandates. Make the new-home heating requirement technology-neutral. Keep smart-charging requirements, efficiency standards, air-quality rules and vehicle safety standards. Honour grants, credits and obligations already accrued.

Transport-fuel obligations remain under the inherited framework described in Programme Annex Appendix C.

1 Peak and energy are different problems

Electric vehicles add energy more than peak

At typical mileage an electric car uses roughly 2,000 kWh a year, so each million cars adds about 2 TWh to annual demand. Most charging can be moved to night-time and away from scarcity. The Electric Vehicles (Smart Charge Points) Regulations 2021 already require new home and workplace charge points to support smart charging, off-peak defaults and randomised delay. [4]

Heat pumps add to the coldest hours

Heat demand is concentrated in cold weather. Depending on insulation, sizing and diversity, each million heat pumps can add roughly 1.5–3 GW to a cold-evening peak and 3–4 TWh a year. These are illustrative ranges, not forecasts. Heat electrification therefore matters more for the reliability standard than vehicle electrification, and the prolonged cold, still spell is its hardest test.

For security, the measure that matters is how much new demand coincides with the winter peak, not the number of devices sold. Policy should be judged on that basis.

2 Remove sales quotas and replacement mandates

Cars and vans

Revoke the Vehicle Emissions Trading Schemes Order 2023, which sets the zero-emission sales trajectory and the end-date for new petrol and diesel cars. The Order is made under the trading-scheme powers in the Climate Change Act 2008, not its target duties, so repealing the targets does not remove it. Revocation must be express, with the consultation the Act requires. Honour obligations and credits accrued before revocation, and close the scheme at the end of a compliance year so manufacturers are not penalised mid-year. [2]

Keep air-quality and vehicle safety standards. Manufacturers' compliance costs and the cross-subsidies they create end; vehicle prices then follow product costs.

Heating

Set no date for phasing out gas or oil boilers in existing homes, and allow like-for-like replacement. Keep the fabric and efficiency elements of the Future Homes Standard, which reduce peak demand whatever heating is installed, and make its heating requirement technology-neutral: a new home may meet it with an efficient boiler, a heat pump or a heat network where its whole-life cost is lower. [3]

Honour Boiler Upgrade Scheme commitments. From year one heat technologies compete under the common appraisal in Other Energy Sources and Storage rather than through routine grants, consistent with the end of technology-specific subsidy awards.

3 Keep whatever electrification happens flexible

Retain the smart charge point requirements and make off-peak, flexible tariffs the default offer to electric-vehicle owners through the retail arrangements in UK Electricity Market Reform. Count vehicle-to-grid and managed charging as flexibility only with credible duration, price, rebound and verified performance.

Pair heat pumps with insulation, controls and heat storage so that each installation adds as little as possible to the cold-weather peak. Fund distribution reinforcement ahead of need where regional plans show heat and transport demand, as set out in UK Electricity Market Reform.

4 State the trade-offs plainly

Fuel imports

An electric car on a nuclear-heavy grid runs on domestic supply; a petrol or diesel car runs on fuel that is largely imported. In 2025 net imports of petroleum products reached about 15.5 million tonnes, the highest since the UK became a net product importer in 2013, and diesel was almost 40% of product imports. Removing quotas trades lower electricity demand for higher fuel imports unless refining and stocks are strengthened, which Domestic Fuel Supply Oil Gas and Coal addresses. Report the effect on net import exposure each year. [5]

Emissions

Transport and heating emissions will fall more slowly than under the current mandates. The package reports this rather than claiming an offset. Road fuel duties remain separate from the carbon tax.

Demand may still rise

Removing mandates does not stop electrification. Electric cars may reach purchase-price parity, and running costs already favour them for many drivers. Procurement must not assume demand falls; the security case still has to hold if consumers electrify faster than the package expects.

5 Plan supply against the package’s own demand

The accompanying model will use a programme demand case as the proposed programme’s reference: slower transport and heat electrification than Holistic Transition, with the computing-demand stress retained. Procurement keeps tranche options against Holistic Transition and higher demand, released under the annual decision in Electricity Supply through the Transition when forward demand follows those pathways.

Publish annual indicators: electric share of new car and van sales, heat-pump installations, smart-charging participation and the estimated contribution of transport and heat to the winter peak. Revise the demand case when they diverge from it.

6 Legislative and delivery route

Announce the policy before the election. Revoke the vehicle trading-scheme order from the start of the first full compliance year after taking office, or expressly in the Energy Objectives Repeal and Replacement Bill. Amend the England Building Regulations and approved documents for the new-home heating requirement; building regulation is devolved, so Wales, Scotland and Northern Ireland decide their own standards. Retain the smart charge point regulations. Programme Annex Appendix F records the legal routes.

What this paper does not claim

Removing mandates does not guarantee lower electricity demand, lower emissions or lower bills. The vehicle and heat figures above are illustrative arithmetic, not forecasts. The model figures are for the proposed programme under the reliability-standard setting and will be updated when the programme demand case is run.

Sources

Policy baseline checked on 22 October 2026. Numbered references support factual statements; the proposed reforms are our recommendations.

[1] electrive. UK government to ease EV sales mandate, but only slightly. 19 October 2026. Current schedule, 2026 sales share and consultation timetable; the reported 60% option is unconfirmed.

https://electrive.com/2026/10/19/uk-government-to-ease-ev-sales-mandate-but-only-slightly

[2] UK Parliament. The Vehicle Emissions Trading Schemes Order 2023 (SI 2023/1394). Made under sections 44, 46(3), 54 and 90(3) of, and Schedules 2 and 3 to, the Climate Change Act 2008.

https://www.legislation.gov.uk/uksi/2023/1394/made

[3] The MCS Foundation. What the Warm Homes Plan means for home decarbonisation. January 2026. Future Homes Standard, Boiler Upgrade Scheme funding and the 450,000 installation aim.

https://mcsfoundation.org.uk/wp-content/uploads/2026/03/What-the-Warm-Homes-Plan-means-for-home-decarbonisation-The-MCS-Foundation.pdf

[4] UK Parliament. The Electric Vehicles (Smart Charge Points) Regulations 2021 (SI 2021/1467). Smart functionality, off-peak charging and randomised delay.

https://www.legislation.gov.uk/uksi/2021/1467/contents/made

[5] Department for Energy Security and Net Zero. Digest of UK Energy Statistics 2026, Chapter 3: oil and oil products. 2025 trade, refinery output and product imports.

https://assets.publishing.service.gov.uk/media/6a69f02d16bc92f51e1a4337/DUKES_2026_Chapter_3.pdf

Read with Electricity Supply through the Transition, UK Electricity Market Reform, Domestic Fuel Supply Oil Gas and Coal, Other Energy Sources and Storage and UK Energy Reform Programme Annex.