COMMERCIAL VEHICLE SHOW

HGV DECARBONISATION REPORT

EARLY ADOPTION OF EHGVS REMAINS FRAGMENTED

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EXECUTIVE SUMMARY

The transition to net zero in the heavy goods vehicle (HGV) sector remains at an early and uncertain stage.

Diesel continues to dominate fleet composition, with **alternative fuels and technologies yet to achieve meaningful scale. While options such as HVO and gas are being explored, no single pathway has emerged as a clear or widely accepted solution.**

Infrastructure is the defining constraint shaping the transition. More than half of operators we surveyed identify it as their primary barrier, with **concerns centred on charging availability and grid capacity**. This is limiting the feasibility of electrification at scale.

Confidence in achieving net zero is correspondingly low. Nearly **seven in ten operators lack confidence in the sector's ability to meet 2040 targets**, reflecting a gap between policy ambition and operational reality.

The market is also highly fragmented. Some operators are actively exploring alternative fuels and technologies, while others are taking a more cautious approach or have no current plans to transition.

Overall, **the HGV sector can be characterised as constrained rather than resistant**. Progress is being made, but it is uneven, and heavily dependent on developments in infrastructure and the emergence of viable, scalable solutions.

RESEARCH METHODOLOGY

This report is based on a survey of 61 UK-based HGV fleet operators conducted by the Commercial Vehicle Show.

Respondents were asked about fleet composition, alternative fuel usage, barriers to decarbonisation, future plans, and confidence in achieving net zero targets.

The results provide insight into how operators are currently approaching decarbonisation and the challenges shaping decision-making across the sector.

> "While options such as HVO and gas are being explored, no single pathway has emerged as a clear or widely accepted solution:

> "Seven in ten operators lack confidence in the sector's ability to meet 2040 targets"

FLEET COMPOSITION AND CURRENT VEHICLE ADOPTION

The HGV fleet remains overwhelmingly diesel-dependent, accounting for approximately 90% of the average fleet composition across respondents.

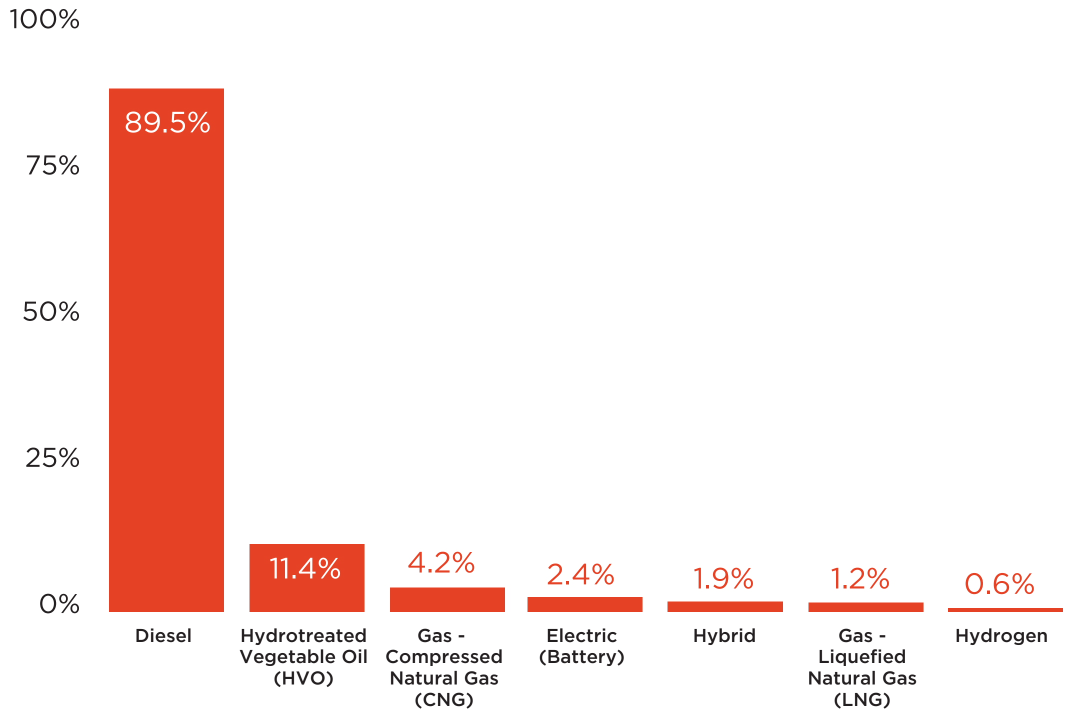
HVO represents the most established alternative, at around 11% of the average fleet mix, while other technologies, including electric, gas, hydrogen and hybrid, remain at low single-digit levels.

Unlike the LCV sector, there is no clear second powertrain emerging. Instead, operators are managing increasingly mixed fuel and powertrain fleets, combining diesel with a range of alternative solutions rather than transitioning towards a single dominant replacement.

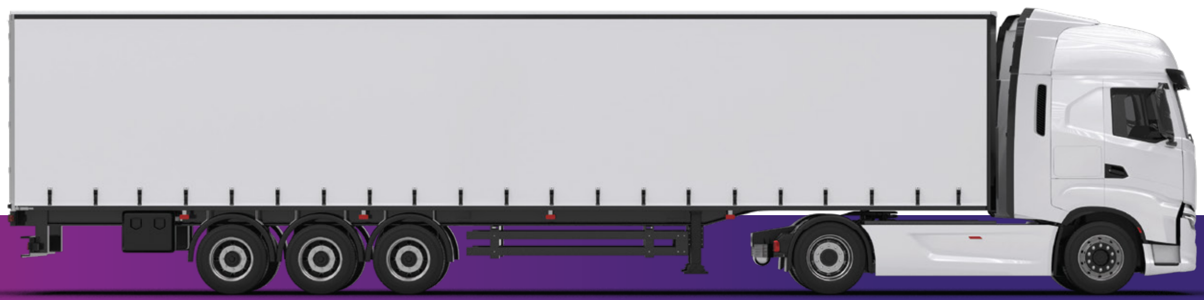
This indicates that the sector has not yet moved into a phase of meaningful transition. While alternative fuels and technologies are present, they are not scaling in a way that challenges diesel dominance.

> **"The sector has not yet moved into a phase of meaningful transition"**

What is the current make-up of your HGV fleet?



*Figures represent averaged responses and may not total 100%.



ALTERNATIVE FUELS: HVO AND GAS

HVO has gained traction due to its ease of adoption and compatibility with existing vehicles. **However, the long-term role of HVO remains uncertain and it appears to function as a low-disruptive alternative.**

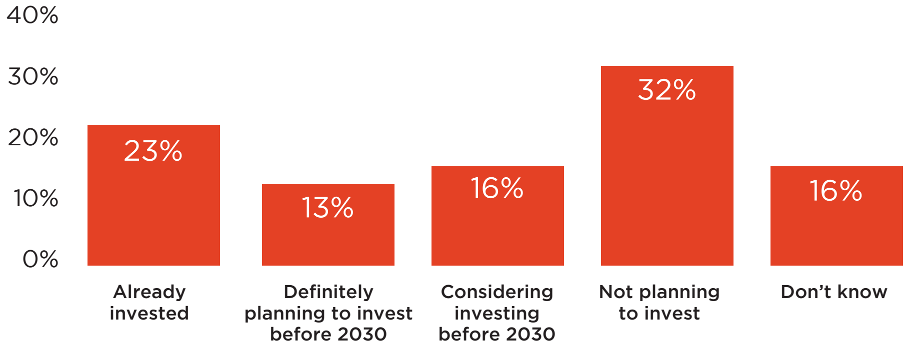
More than 70% of operators do not believe HVO will fully replace diesel, and it's being constrained by cost concerns, supply uncertainty and lack of long-term clarity.

Gas presents a similarly mixed picture. While 23% of operators have already invested and 29% are planning to do so, 32% have no plans to adopt it.

This positions gas in a similar category to HVO. It is viable for certain fleets and use cases, but does not command broad industry consensus.

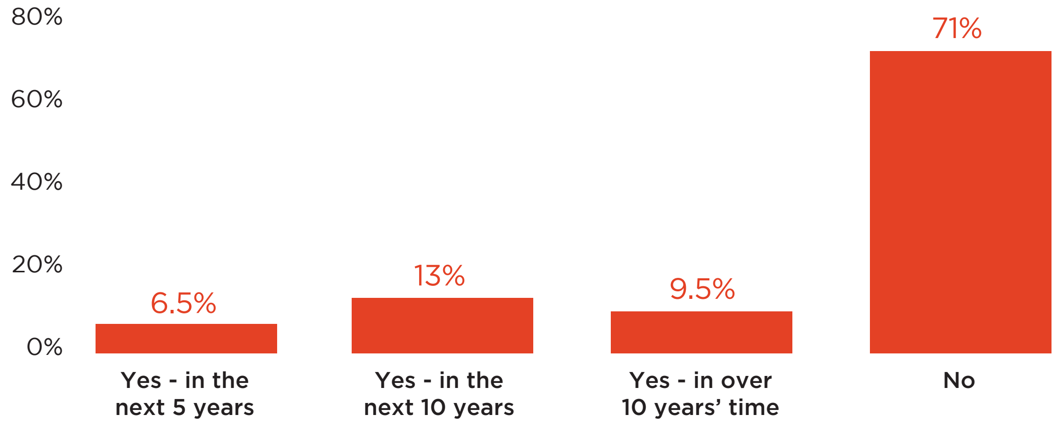
The data suggests that the sector is not converging on gas as a dominant interim solution. Instead, operators are evaluating it alongside other options, **reflecting a wider uncertainty around which pathway will ultimately prove viable**.

What is your current investment position regarding gas (CNG/Bio-CNG) for your HGV fleet before 2030?

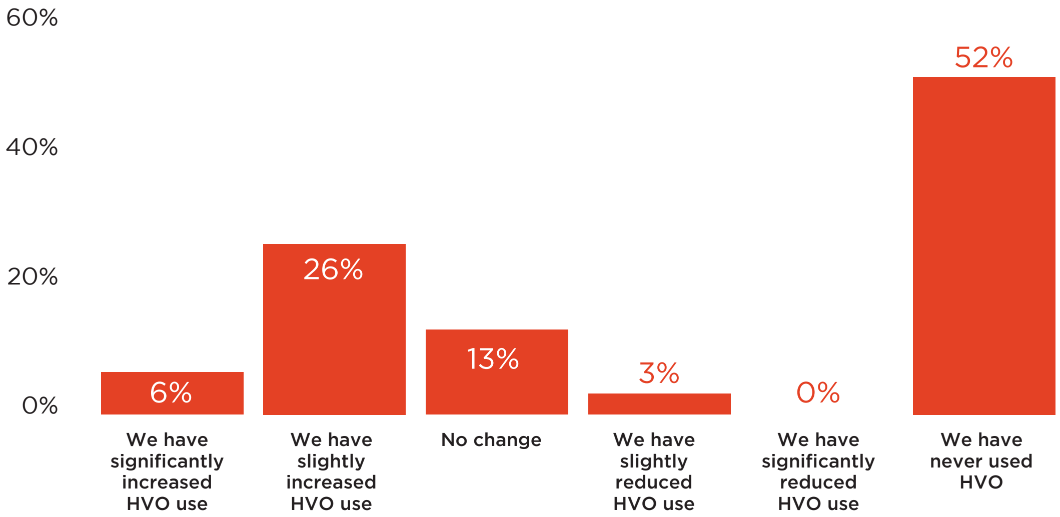


> **"However, the long-term role of HVO remains uncertain and it appears to function as a low-disruptive alternative"**

Do you think HVO will fully replace diesel in HGVs? If so, by when?



Have you changed your use of HVO over the past 12 months?



BARRIERS TO ELECTRIFICATION

Infrastructure is the single most significant barrier to HGV decarbonisation.

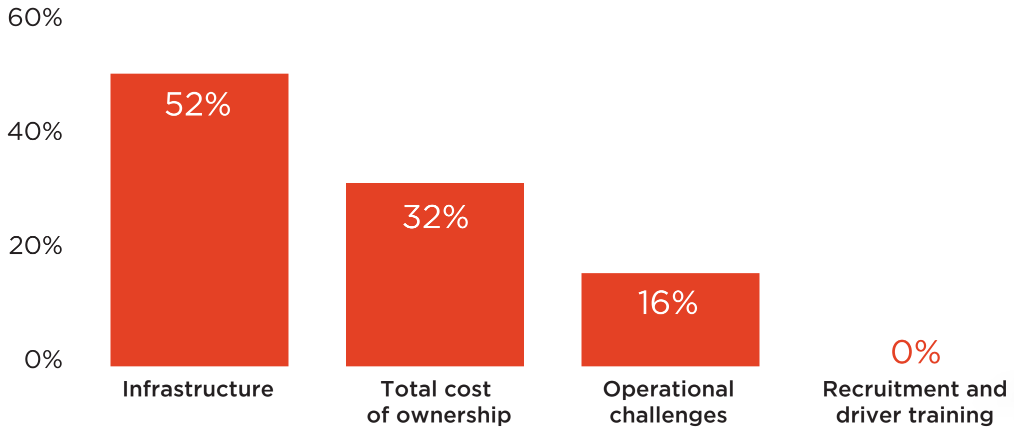
A total of 52% of operators rank infrastructure as their primary concern, ahead of total cost of ownership at 32% and operational challenges at 16%. Within this, the most acute issues are public charging availability (39%) and depot or grid capacity (32%).

A total of 52% of operators rank infrastructure as their primary concern, ahead of total cost of ownership at 32% and operational challenges at 16%. Within this, the most acute issues are public charging availability (39%) and depot or grid capacity (32%).

This is not a perception issue, but a structural constraint. The data suggests that operators are not resisting electrification, but questioning whether the system required to support it is viable.

> **"The data suggests that operators are not resisting electrification, but questioning whether the system required to support it is viable"**

What are your main concerns about HGV electrivication? (% ranked #1)



DRIVERS OF DECARBONISATION

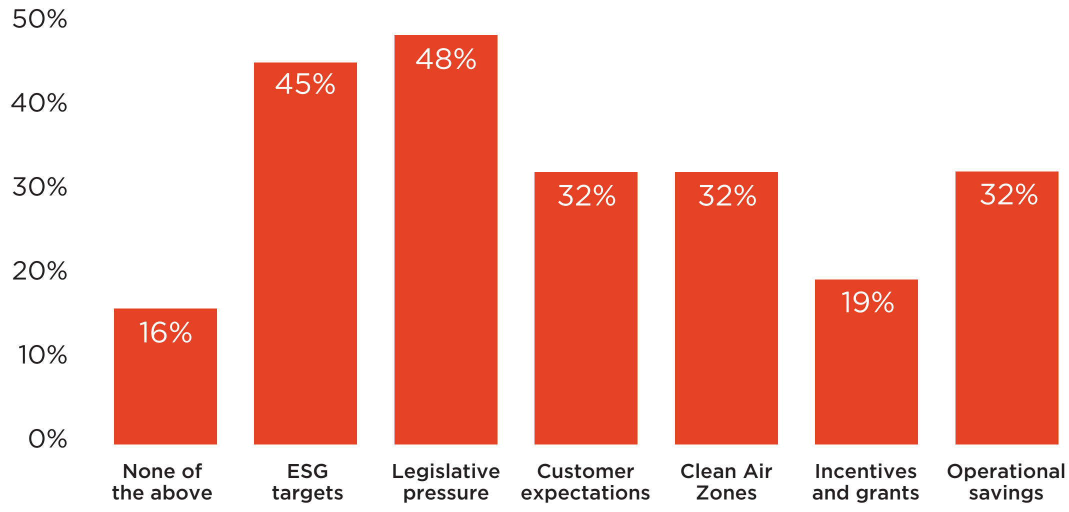
The transition towards lower-emission HGVs is being driven primarily by external pressures.

Legislative requirements influence 48% of operators, closely followed by ESG targets at 45%. Other factors, including customer expectations, Clean Air Zones and operational savings, each influence around 32% of operators.

This indicates that **decarbonisation is not currently being driven by a strong operational or economic incentive**. Instead, it is being shaped by compliance requirements and corporate commitments.

This further reinforces the gap between ambition and practical delivery, as operators are being pushed to transition in an environment where key enabling conditions are not yet fully in place.

Which factors are most influencing your move toward decarbonisation?



A FRAGMENTED TRANSITION

The HGV market is not progressing along a single, unified trajectory.

Instead, it is fragmenting into distinct groups. Some operators are already adopting or planning to adopt electric vehicles and alternative fuels, while others are taking a more cautious approach or have no current plans to transition. Notably, 29% of operators report having no plans to adopt electric HGVs.

This split reflects differences in operational requirements, infrastructure access, and confidence in available solutions. It also indicates that the transition is unlikely to follow a linear path.

Rather than a steady, uniform shift, adoption is likely to cluster around specific use cases where electrification or alternative fuels are viable, while other segments remain dependent on diesel.

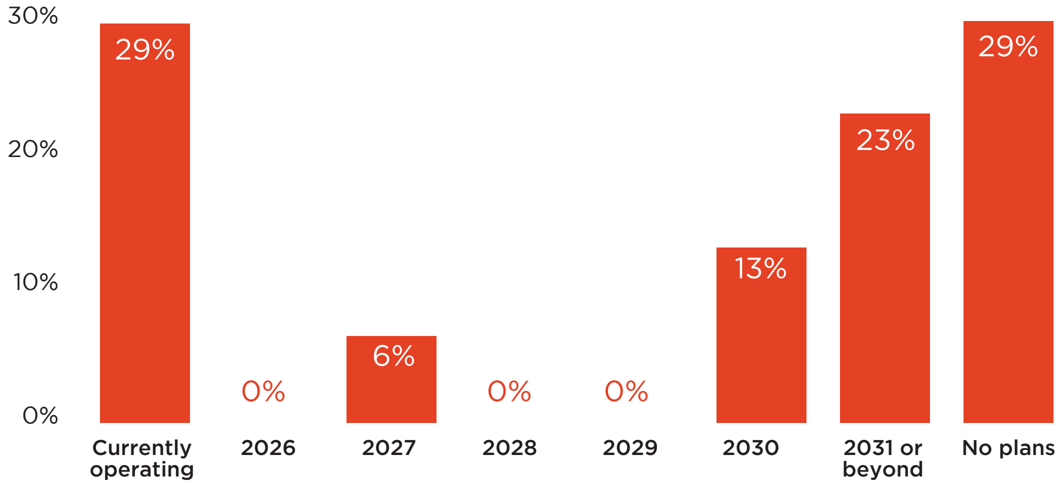
CONFIDENCE IN ACHIEVING NET ZERO

Confidence in achieving net zero by 2040 is low.

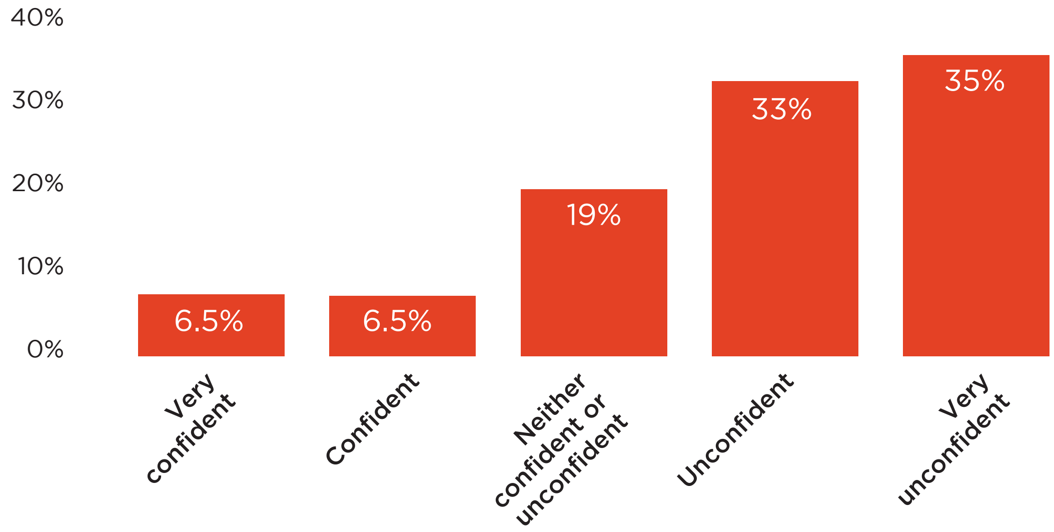
Only 13% of operators report being confident, while 68% are unconfident. This reflects ongoing concerns around infrastructure, cost, and the lack of a clear pathway to decarbonisation.

> **"Adoption is likely to cluster around specific use cases where electrification or alternative fuels are viable, while other segments remain dependent on diesel"**

By what year do you expect to operate electric HGVs?



How confident are you that the HGV sector will achieve net zero by 2040?



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