COMMERCIAL VEHICLE SHOW

COMMERCIAL VEHICLE DECARBONISATION REPORT

ACTIVE ADOPTION AND FRAGMENTED TRANSITION

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LCV & HGV EXECUTIVE SUMMARY

Decarbonisation in the light commercial vehicle (LCV) sector is no longer theoretical. The transition is already underway, with operators actively deploying electric vehicles across their fleets.

Within the LCV sector, the transition to lower-emission vehicles is already underway, and operators are increasingly identifying routes where electrification is commercially and operationally viable. The report highlights that many are moving directly from diesel to fully electric vehicles rather than relying on hybrid technology as a stepping stone.

However, while adoption is progressing, the transition remains constrained by range, charging infrastructure and payload limitations continue, while confidence in achieving net zero remains mixed. The sector can therefore be characterised as being in an “active adoption phase”, where operators are committing to electrification, but rollout remains selective and uneven depending on operational requirements.

By contrast, the report shows that the HGV sector remains at a much earlier stage of transition. Diesel continues to dominate fleet composition, while alternative fuels and technologies including HVO, gas, electric and hydrogen, aren’t standing out as a clear replacement for diesel, in the long or short-term.

Infrastructure emerges as the defining challenge for HGV operators. Concerns around charging availability, depot capacity and grid readiness are significantly holding back confidence in large-scale electrification. At the same time, many operators remain uncertain about which technologies will be favoured over the long term.

As a result, the HGV sector is best characterised as constrained rather than resistant. Operators are responding to legislative pressure, ESG commitments and customer expectations, but the lack of infrastructure and clear long-term pathways is slowing widespread adoption.

Across both sectors, the consistent theme is that the challenge is no longer about whether operators want to decarbonise, but rather how quickly the practical barriers to decarbonisations can be overcome.

COMMERCIAL VEHICLE SHOW

LCV DECARBONISATION REPORT

OPERATORS IN ACTIVE ADOPTION PHASE

LCV EXECUTIVE SUMMARY

Decarbonisation in the light commercial vehicle (LCV) sector is no longer theoretical. The transition is already underway, with operators actively deploying electric vehicles across their fleets.

The data shows that electric vans now represent a meaningful proportion of fleet composition, with more than half of respondents operating eLCVs.

However, this transition is not without friction. **Operators continue to face significant challenges, particularly around range, infrastructure, and payload limitations.** These factors are constraining the pace at which electrification can scale across all use cases.

At the same time, the market is not following a single trajectory. **While some operators are moving rapidly towards high levels of electrification, others expect minimal adoption by 2030**.

This reflects differing operational requirements, levels of readiness, and confidence in the supporting ecosystem.

A key characteristic of the LCV transition is the limited role of hybrid vehicles. Rather than acting as a stepping stone, **many operators are moving directly from diesel to fully electric vehicles where viable.** This creates a mixed fleet environment, where electrification is advancing selectively rather than uniformly.

Overall, the LCV sector can be characterised as being in a **phase of active transition**. The focus is no longer on whether to adopt electric vehicles, but on how to overcome the practical barriers that are limiting wider rollout.

RESEARCH METHODOLOGY

This report is based on a survey of 110 UK-based LCV fleet operators conducted by the Commercial Vehicle Show.

Respondents were asked a series of questions covering fleet composition, approaches to electrification, perceived barriers, future expectations, and confidence in achieving net zero targets.

The findings reflect a range of fleet sizes, industries, and operational requirements, providing a broad view of how the LCV sector is approaching decarbonisation in practice.

“Electric vans now represent a meaningful proportion of fleet composition, with more than half of respondents operating eLCVs.”

FLEET COMPOSITION AND CURRENT VEHICLE ADOPTION

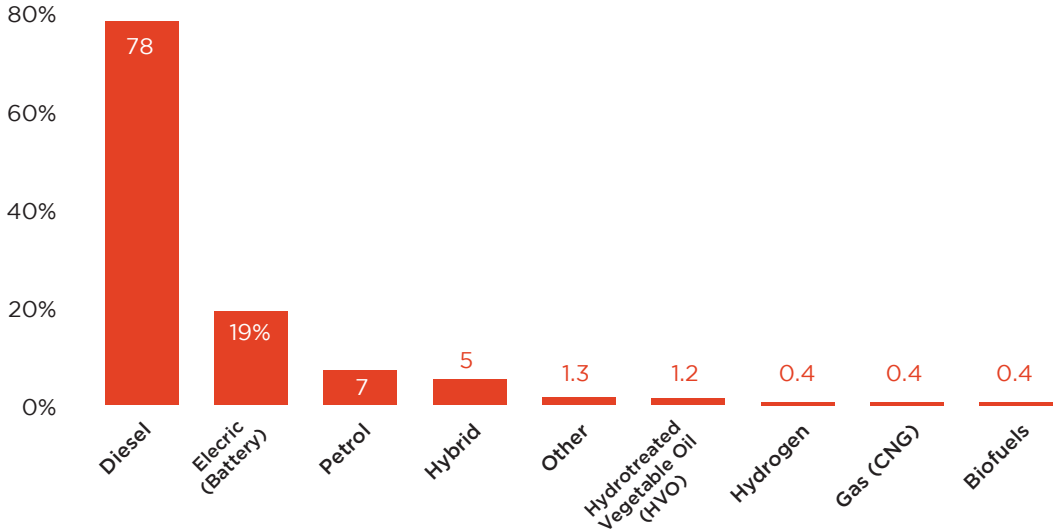
The LCV fleet remains predominantly diesel, accounting for approximately 78% of vehicles. However, electric vehicles now represent around 19% of the average fleet mix, making them the clear second-largest powertrain.

This is reinforced by adoption levels, with 55% of operators already running electric vans. Only a small proportion remain in a trial phase, indicating that the market has moved beyond experimentation and into active deployment.

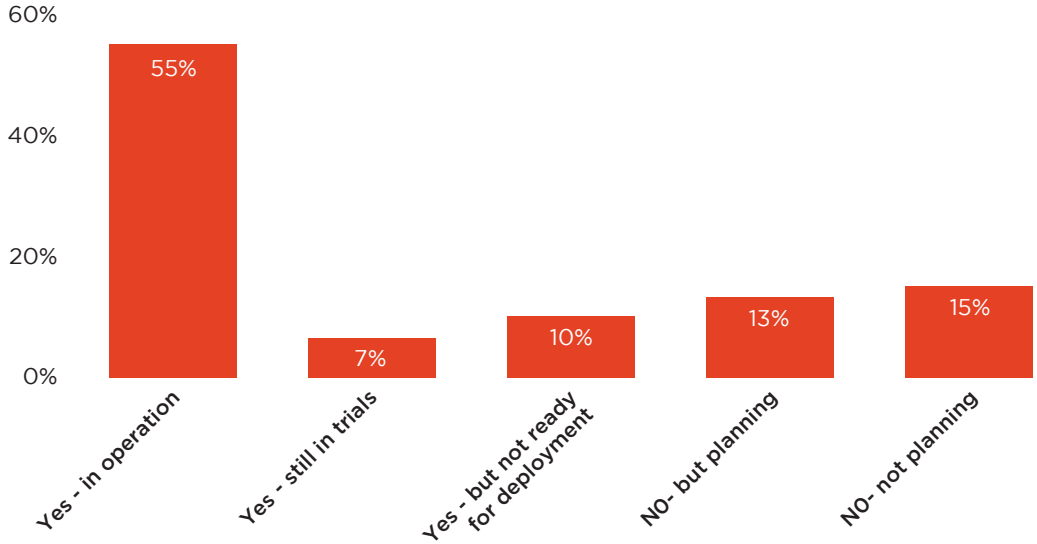
Hybrid vehicles, by contrast, account for a relatively small share of fleets. This suggests that operators are not widely adopting hybrid technology as an intermediary step between diesel and full electrification.

Instead, the data points to a more direct transition, with operators moving straight to electric vehicles where operationally viable.

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



Have you trialled electric vans/LCVs?



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

ELECTRIFICATION STRATEGY: OPERATORS GOING DIRECTLY TO ELECTRIC

Operators' approach to electrification highlights **a clear preference for direct adoption.**

Almost half of respondents, at 47%, report that they are moving directly to fully electric vehicles. A smaller proportion are using plug-in hybrids either as a stepping stone or as a longer-term solution, while 20% have no plans to adopt electrified vehicles.

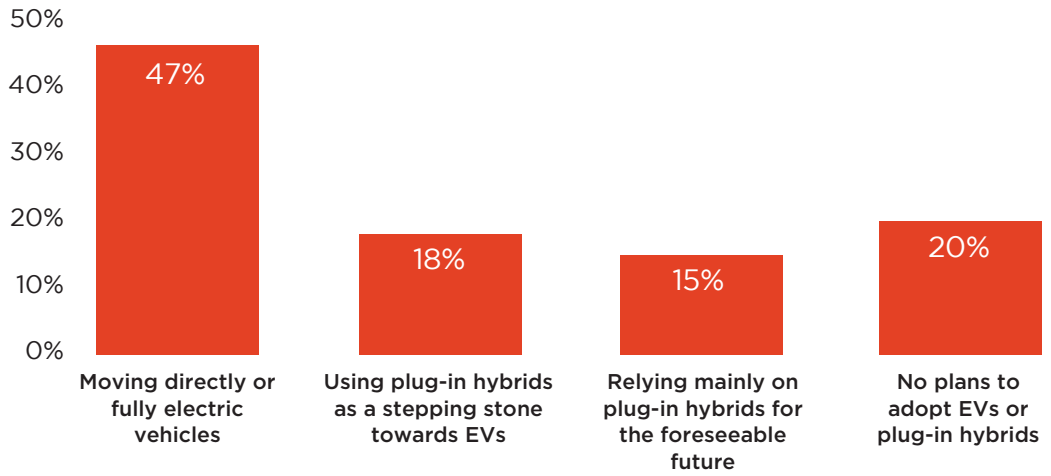
This indicates that the transition is being driven by selective deployment rather than gradual progression. Operators are identifying where EVs can already meet operational requirements and implementing them in those areas, rather than transitioning incrementally through hybridisation.

The factors influencing this transition reflect a combination of regulatory, commercial and operational pressures. Legislative pressure is the most significant driver, influencing 43% of operators, followed by Clean Air Zones at 35% and ESG targets at 33%. Operational savings (32%) and customer expectations (28%) also play a meaningful role, indicating that both **cost and client demand are shaping decision-making.**

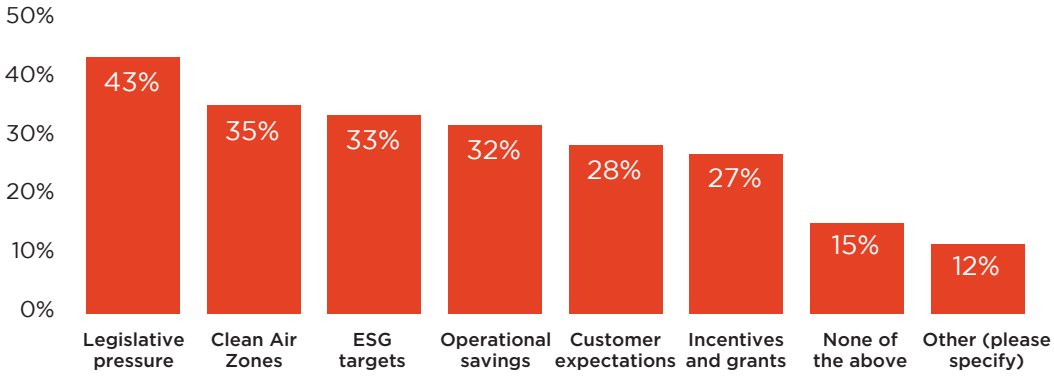
Operators also highlighted additional considerations, including vehicle price, residual values and internal company pressures, **reinforcing that the transition is being shaped by a complex mix of external requirements and internal business priorities**.

"Operators are identifying where EVs can already meet operational requirements and implementing them in those areas, rather than transitioning incrementally through hybridisation"

When transitioning your LCV fleet, what approach are you taking to electrification?



Which factors are most influencing your move toward decarbonisation?



*Note, respondents had multiple options to select any they felt applied.

VEHICLE SUPPLY AND SUITABILITY

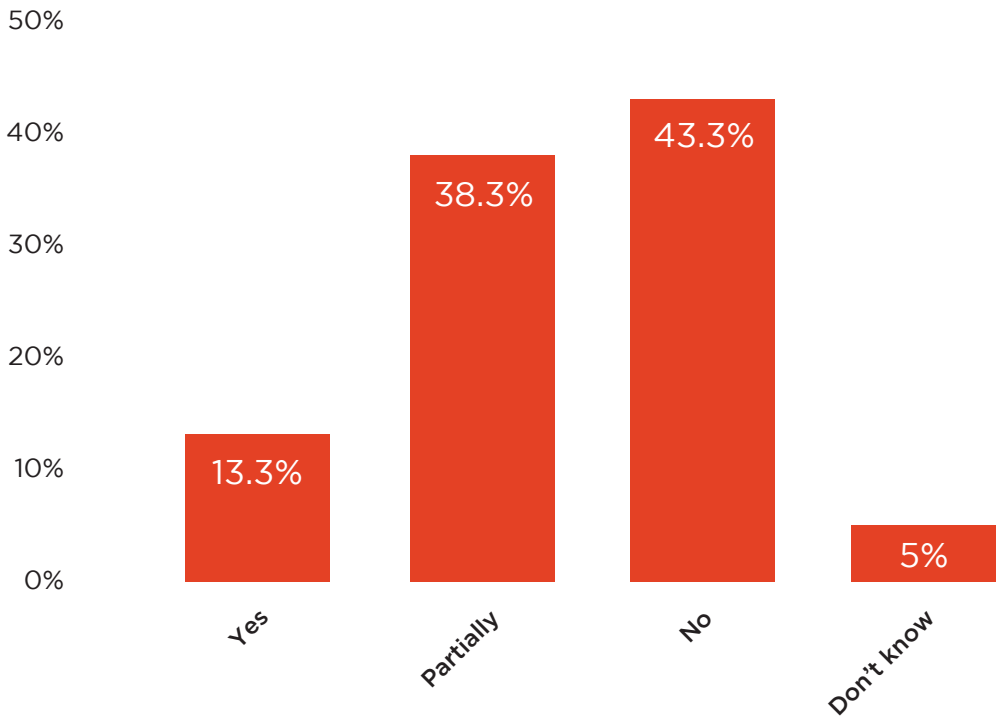
The availability of suitable electric vehicles remains a key challenge.

Only 13% of operators believe that current EV supply fully meets their operational needs, while 43% say it does not and 38% say it only partially does.

This suggests that adoption is often taking place within the limits of what is available, rather than being driven by fully optimised solutions.

Operator feedback also highlights challenges around accessing vehicles and securing demonstrations, indicating that the market, while advancing, is not yet fully mature.

Do you feel the current supply of electric vans/LCVs meets your current operational needs?



"Operator feedback also highlights challenges around accessing vehicles and securing demonstrations, indicating that the market, while advancing, is not yet fully mature"

BARRIERS TO ELECTRIFICATION

Despite strong levels of adoption, operators face a consistent set of barriers that are limiting further progress.

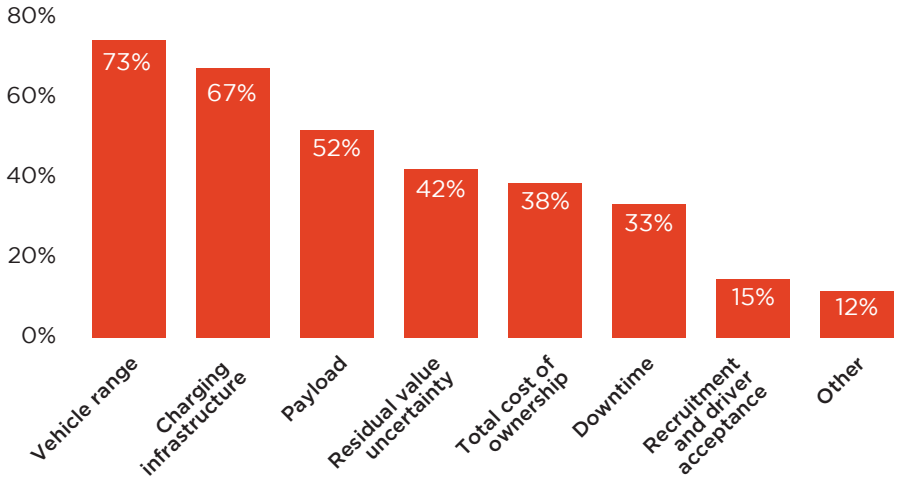
Range is the most widely cited issue, affecting 73% of operators. Infrastructure follows at 67%, while payload limitations are identified by 52%.

While Total Cost of Ownership (TCO) was cited as a barrier by 38% of operators, **55% believe that eLCVs are more expensive over the full lifecycle than diesel.**

These barriers reflect practical operational constraints rather than perception-based concerns. They directly impact vehicle suitability, efficiency, and productivity, and therefore play a central role in fleet decision-making.

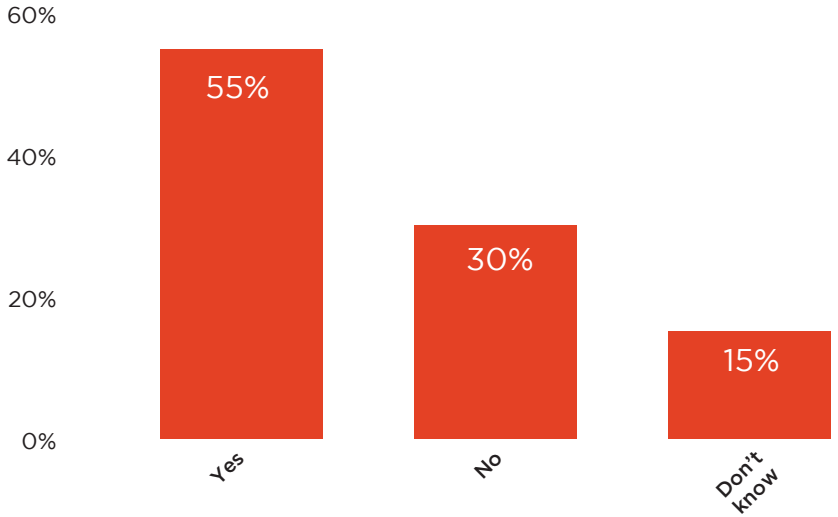
"These barriers reflect practical operational constraints rather than perception-based concerns"

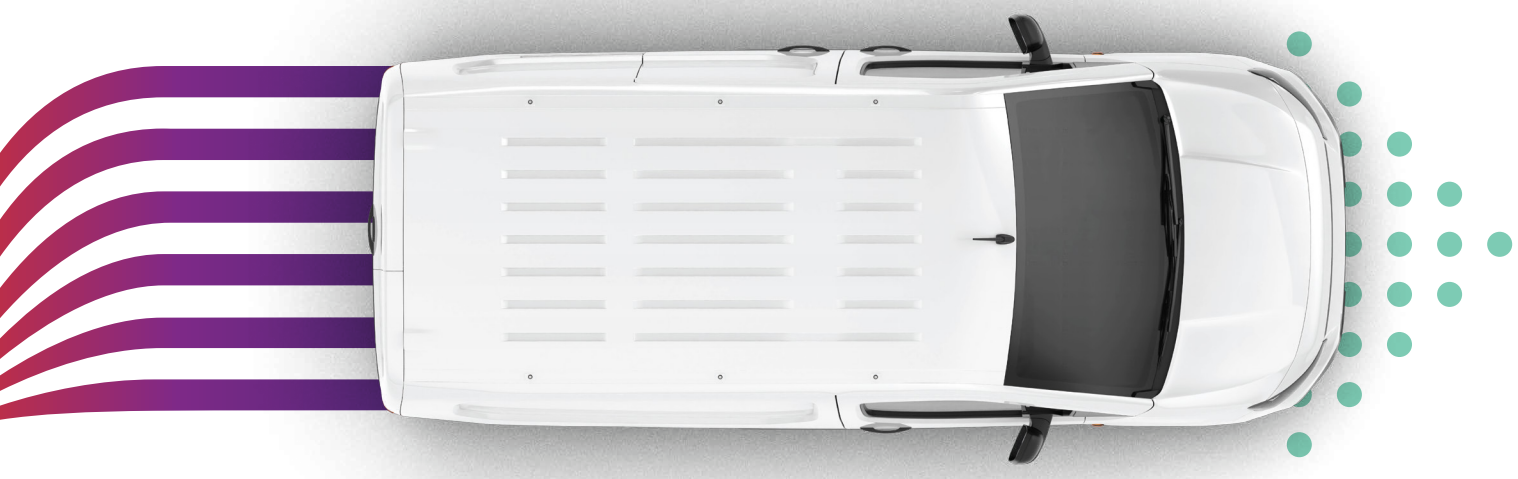
What are your biggest barriers to adopting electric vans/LCVs?



*Note, respondents had multiple options to select any they felt applied.

Do you believe electric vans/LCVs are currently more expensive than diesel over the full lifecycle (TCO)?





> **"More than 83% of operators believe that not enough is being done to support charging infrastructure for commercial vehicles"**

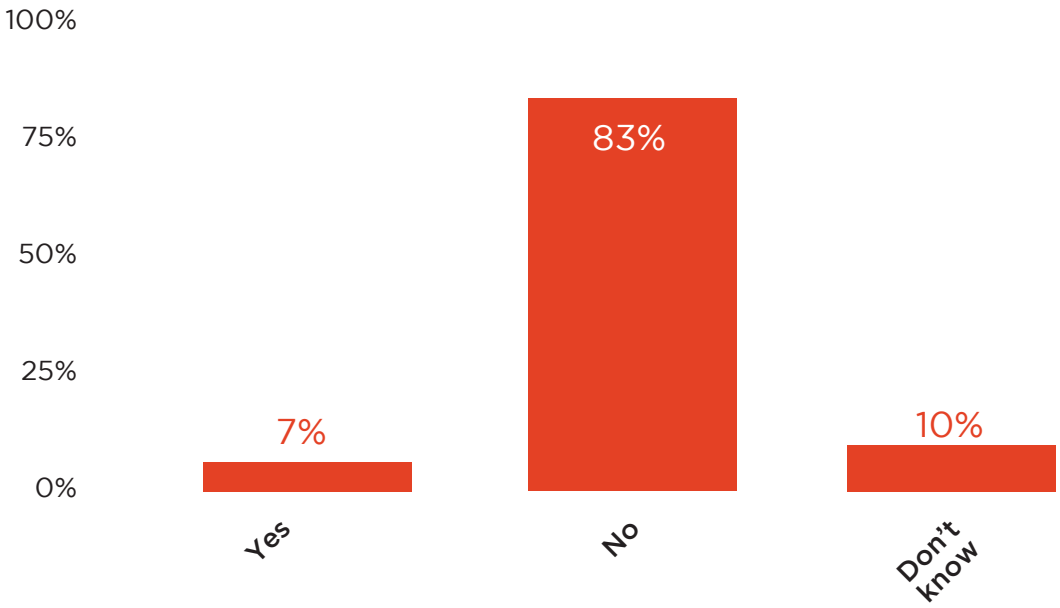
INFRASTRUCTURE CONSTRAINTS

Infrastructure is a major limiting factor in the LCV transition.

More than 83% of operators believe that not enough is being done to support charging infrastructure for commercial vehicles. Concerns include availability, geographic distribution, and cost.

This highlights a disconnect between the pace of vehicle adoption and the development of the supporting charging infrastructure required to sustain it.

Do you think there is enough being done to support LCVs with charging infrastructure?



FUTURE EXPECTATIONS AND CONFIDENCE

Expectations for electrification by 2030 are highly varied.

While 18% of operators expect their fleets to be fully electric, the largest single group, at 25%, expects EVs to account for just 0–10% of their fleet.

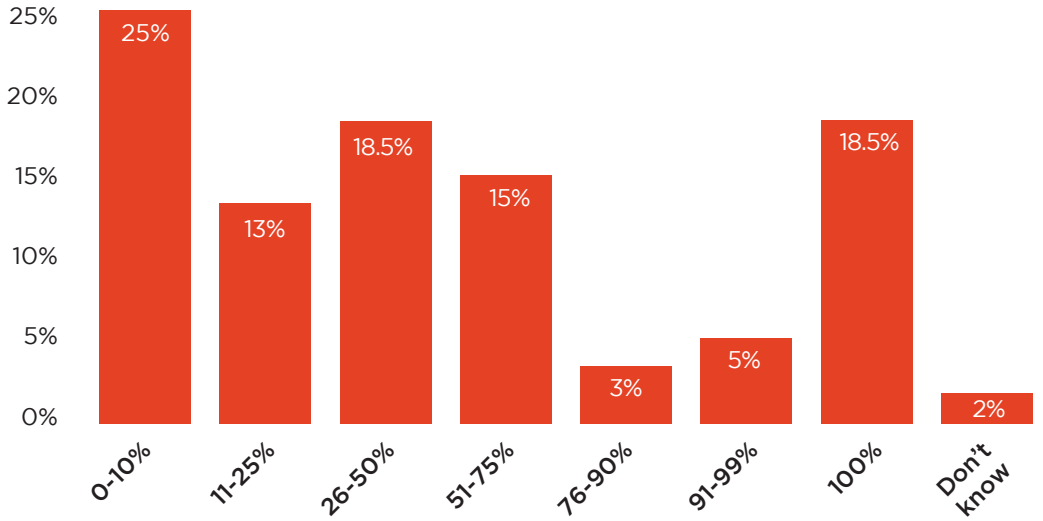
Around 2% of respondents report that they do not yet know what their fleet composition will be by 2030, suggesting that further education and clarity around how to effectively transition fleets is still required.

Confidence in achieving net zero by 2040 is similarly mixed, with a significant proportion (45%) of operators remaining unconfident, while just over a third (35%) are confident.

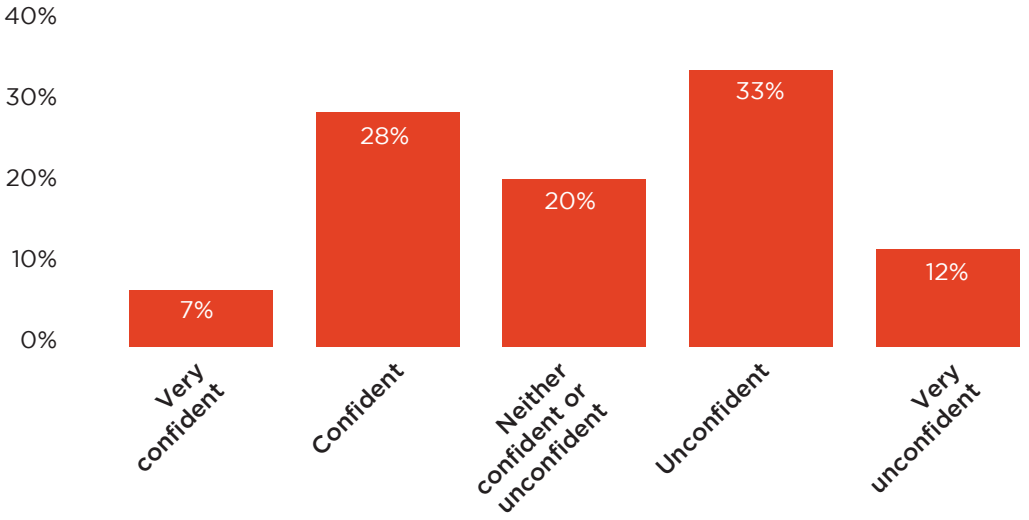
This reflects ongoing concerns around infrastructure, cost, and vehicle capability, which continue to shape expectations for the pace of transition.

"Confidence in achieving net zero by 2040 is similarly mixed, with a significant proportion (45%) of operators remaining unconfident"

What proportion of your LCV fleet do you expect to be electric by 2030?



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



COMMERCIAL VEHICLE SHOW

HGV DECARBONISATION REPORT

EARLY ADOPTION OF EHGVS REMAINS FRAGMENTED

HGV 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.

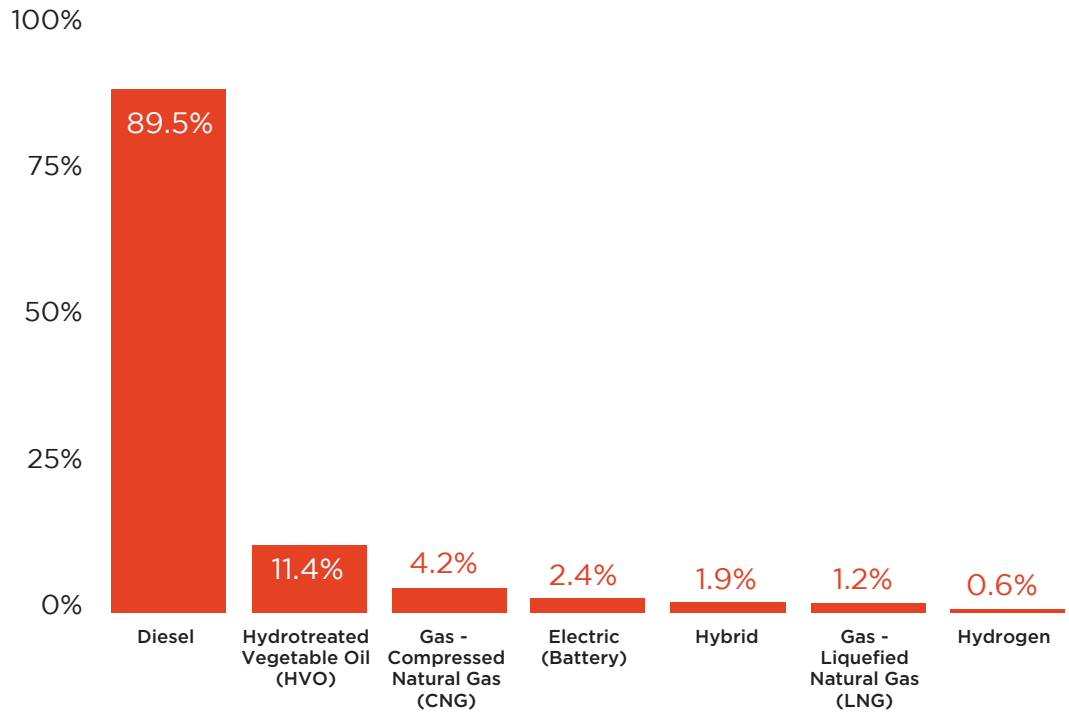
HVO represents the most established alternative, at around 11% of the average fleet mix, while other technologies, including electric, gas, hydrogen and hybrid, remain at low single-digit levels.

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?



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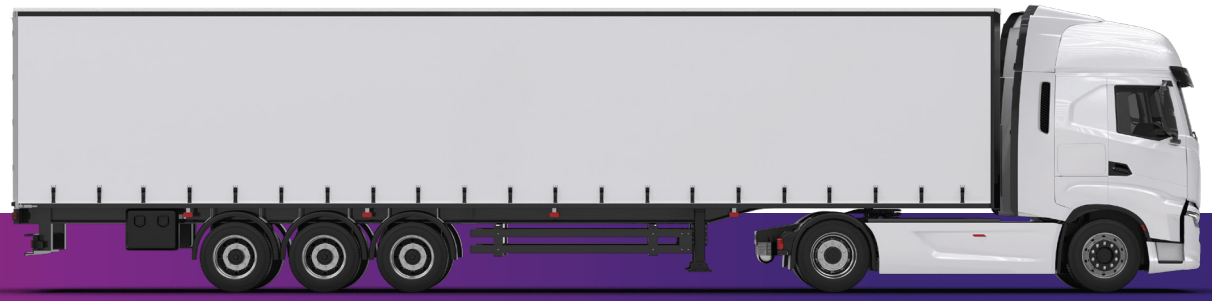


ALTERNATIVE FUELS: HVO AND GAS

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.**

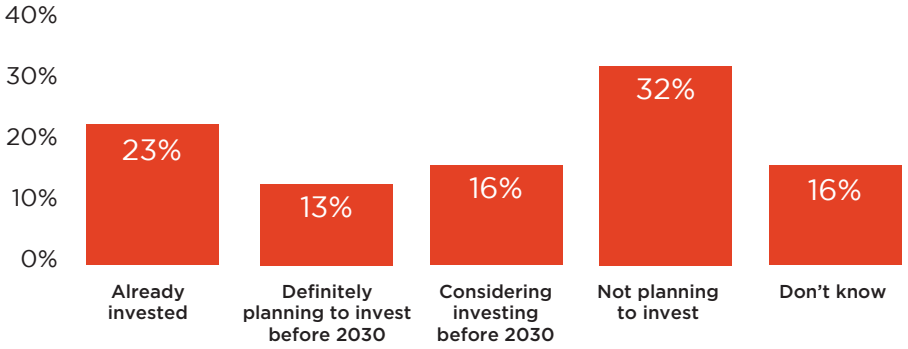
More than 70% of operators do not believe HVO will fully replace diesel, and it's being constrained by cost concerns, supply uncertainty and lack of long-term clarity.

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.

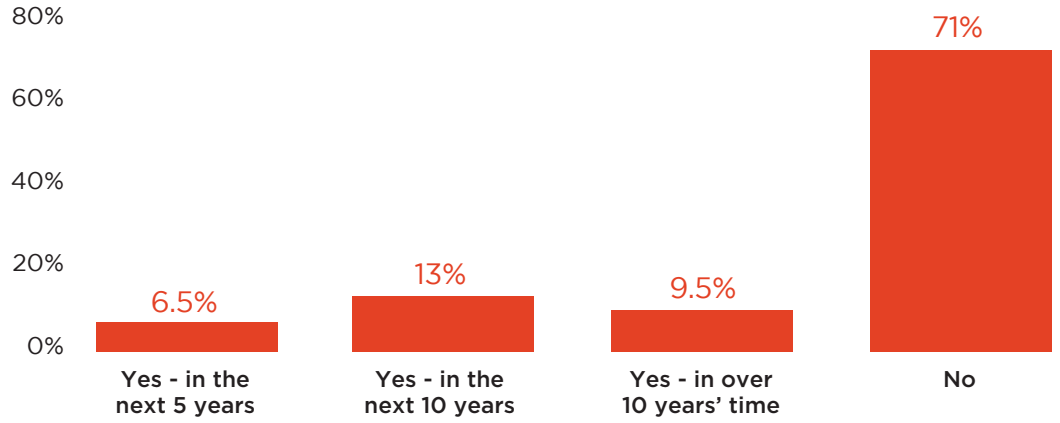
The data suggests that the sector is not converging on gas as a dominant interim solution. Instead, operators are evaluating it alongside other options, **reflecting a wider uncertainty around which pathway will ultimately prove viable**.

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

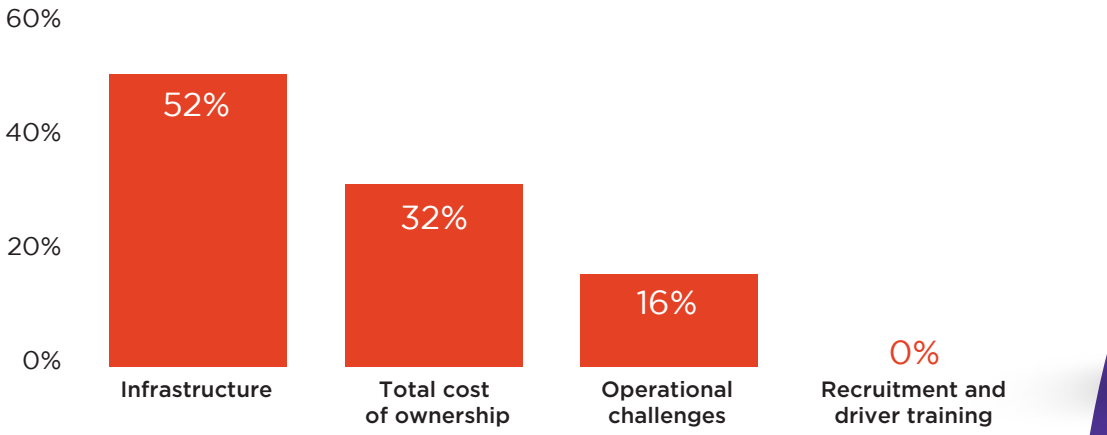
Infrastructure is the single most significant barrier to HGV decarbonisation.

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.

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



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

DRIVERS OF DECARBONISATION

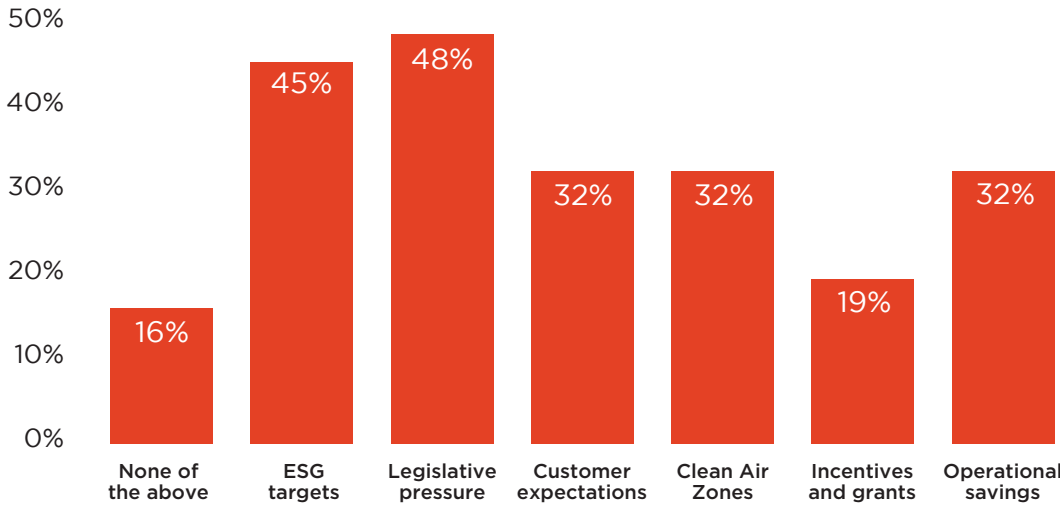
The transition towards lower-emission HGVs is being driven primarily by external pressures.

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 torward 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.

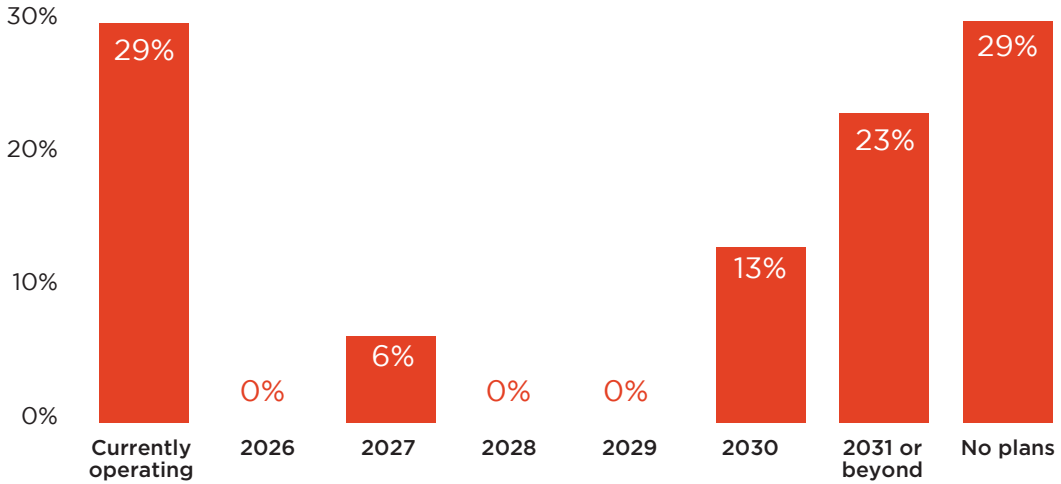
CONFIDENCE IN ACHIEVING NET ZERO

Confidence in achieving net zero by 2040 is low.

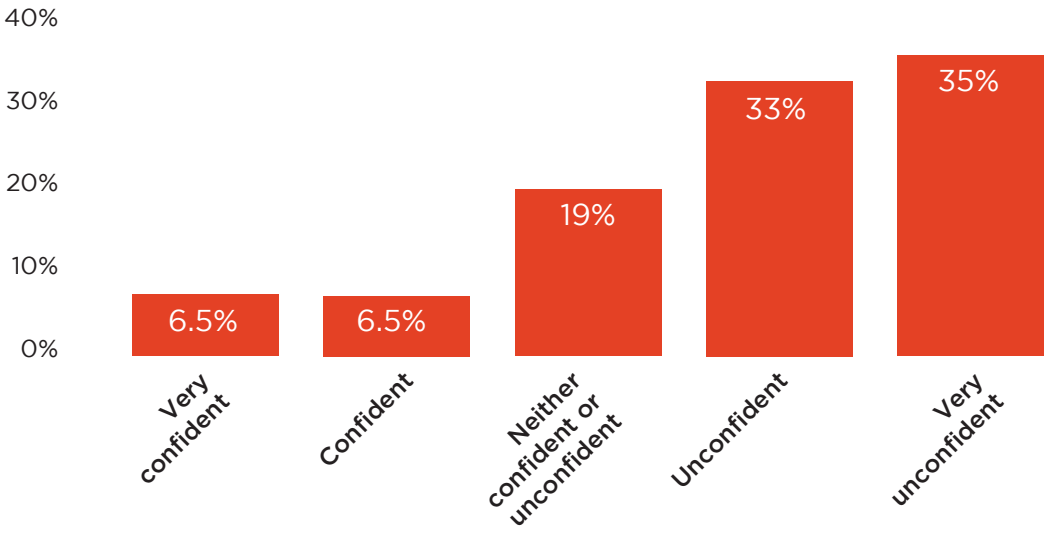
Only 13% of operators report being confident, while 68% are unconfident. This reflects ongoing concerns around infrastructure, cost, and the lack of a clear pathway to decarbonisation.

"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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