# GETTING UK RETAIL TO NET ZERO VEHICLE LOGISTICS BY 2035

DP WORLD

BRC CLIMATE ACTION ROADMAP

THIS INDEPENDENT REPORT WAS COMMISSIONED BY THE BRITISH RETAIL CONSORTIUM (BRC) AND DP WORLD TO UNDERSTAND THE CURRENT PROGRESS, BARRIERS AND SOLUTIONS TO RETAILERS ACHIEVING NET ZERO LOGISTICS BY 2035.

BEARINGPOINT WERE APPOINTED TO UNDERTAKE THIS WORK THROUGH CONSULTATION WITH RETAILERS, AND PROVIDE ITS INDEPENDENT ADVICE INTENDED TO GUIDE RETAILERS, LOGISTICS PROVIDERS AND OTHER STAKEHOLDERS ON THE RIGHT PATH TO ACHIEVING NET ZERO FOR VEHICLE LOGISTICS BY 2035.

THE RESEARCH WAS UNDERTAKEN IN APRIL 2021 WITH 21 BRC RETAIL MEMBERS.

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# GLOSSARY

| | |
|---|---|
| **3PL** | Third Party Logistics |
| **B20** | Biodiesel 20% |
| **B100** | Biodiesel 100% |
| **BEV** | Battery Electric Vehicle |
| **BIO-CNG** | Biomethane Compressed Natural Gas |
| **BIO-LNG** | Biomethane Liquified Natural Gas |
| **CO2 E** | Carbon dioxide equivalent |
| **'GREEN'** | Any technology leading towards lower carbon emissions leading to net zero |
| **GHG** | Greenhouse Gas |
| **HGV** | Heavy Goods Vehicles |
| **HVO** | Hydrotreated Vegetable Oil |
| **LGV** | Light Goods Vehicles |
| **WTW** | Well-To-Wheel |

# EXECUTIVE SUMMARY

UK retailers have signed up to some stretching commitments to reach Net Zero for vehicle logistics. This research shows that the efforts of individual retailers alone, will not be enough to reach that goal. Whilst technology and infrastructure are clearly developing at pace, none is yet at a scale to support the requirements of most UK operators. In a market with a broadly universal proposition requiring retailers to deliver to stores and customers next day, retailers require reliable vehicles which are easy to operate, quick to refuel and flexible enough to service different channels every day. With many major fleet operators needing to make purchasing decisions in the next two years for vehicles in operation beyond 2030, a lack of credible vehicle solutions and refuelling / charging infrastructure are preventing operators from fulfilling their commitments and delivering their agreed strategies.

## KEY RESEARCH FINDINGS

**90% of retailers** have best practices in place to **reduce** current diesel **Greenhouse Gas (GHG)** emissions such as route planning software, driver training and speed limiters (efficiency improvements). But these alone are insufficient to achieve Net Zero for **vehicle logistics.**

**88% of retailers operating** in-house fleets have some type of **'Green' fuelled vehicle.** 78% of which are still at trial stage or low scale. 22% operate at large scale.

**Common barriers** faced by retailers towards reaching Net Zero include **lack of infrastructure,** high capital and operating costs of implementing 'Green' alternatives, and the relatively low range of 'Green' fuelled vehicles available.

# RECOMMENDATIONS TOWARDS NET ZERO FOR VEHICLE LOGISTICS BY 2035

## RETAILERS AND 3PLS

**Light Goods Vehicles (LGVs) – Electrification:** A proven readily available solution for LGVs, which fleet operators should aim to implement at scale as soon as possible.

**Heavy Goods Vehicles (HGVs):** At the current pace of technological advances, electrification will likely not be available for HGVs in the coming years. Vehicle fleet replacement cycles, especially for HGVs, determine that action must be both immediate and far more progressive. Diesel replacements like biomethane or sustainable Hydrotreated Vegetable Oil (HVO) should be considered as viable alternatives.

**Fleet Management best practices:** Complement the use of 'Green fuelled vehicles with best practices such as route planning, improvement of vehicle fill, procurement of vehicles with eco technology, shared journeys and resources, and backhauling.

**Collaboration:** Retailers should look to work together to collaborate on vehicle trials and make joint cases for local and national infrastructure investment.

## GOVERNMENT

**This report calls for UK Government and Local Authorities to facilitate, support and lead change much more aggressively through policy development and direct business support. Suggestions include:**

Demand side incentives such as grants and tax deductions for new 'Green' vehicles and investments in a wider roll out of charging/fuelling infrastructure.

Supply side incentives such as continued R&D funding to support vehicle and engine manufacturers.

Consider introducing legislation to ensure businesses' transition to 'Green' vehicles within the right timescales (especially within the HGV market); and ensure suitable provision of viable, affordable alternative fuels.

Take the lead and replace Government's own current fleet with 'Green' fuelled vehicles.

## VEHICLE AND ENGINE MANUFACTURERS

Vehicle and engine manufacturers need to speed up the technological changes to alternative fuel vehicles to meet retailers' needs - such as increasing the range of vehicles, improving the distance they can travel, and working with operators to solve challenges with transitioning to Net Zero.

Government has a key role to play to incentivise manufacturers to scale up their R&D investments in 'Green' vehicle technology so a greater range of cost-efficient vehicles can be released into the market much faster.

# INTRODUCTION

## THE BRC'S CLIMATE ACTION ROADMAP RECOMMENDS UK RETAILERS ACHIEVE NET ZERO FOR VEHICLE LOGISTICS BY 2035.

This report, commissioned by the BRC and DP World, identifies how retailers are progressing towards Net Zero vehicle logistics, the barriers they face in achieving it, and what solutions should be considered.

Research was undertaken through a mixture of online surveys and one-to-one interviews from which responses were gathered from 21 of the UK's leading retailers.

## AIMS AND OBJECTIVES

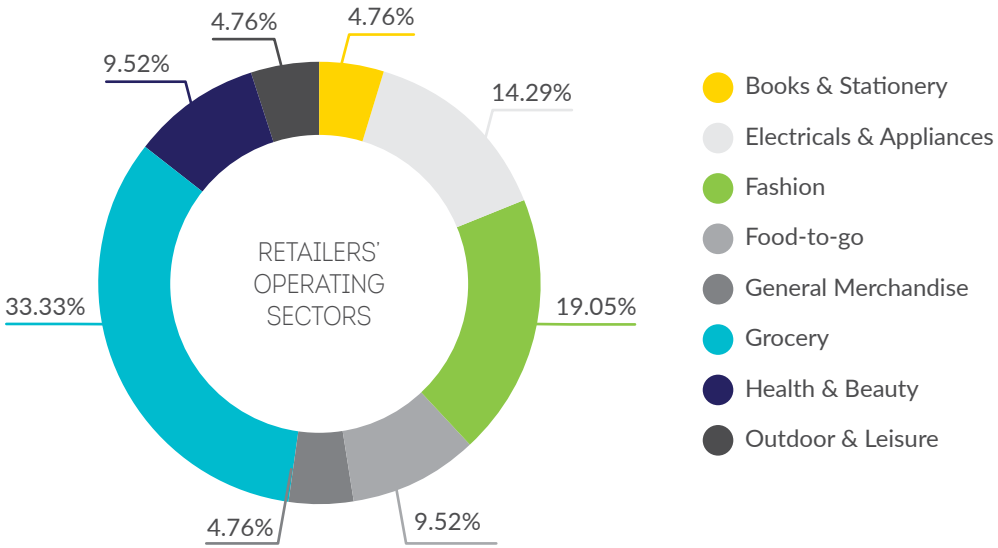
**The purpose of this report is to provide clear guidance to retailers and logistics providers on the best solutions to reaching Net Zero for vehicle logistics by 2035:**

- Identify the current challenges facing retailers utilising existing low carbon vehicles, both own fleets and third-party logistics providers (3PLs).
- Identify the gaps to meeting Net Zero for vehicle logistics by 2035.
- Provide recommendations to retailers and 3PLs on the best alternatives in the market.
- Provide UK Government and vehicle and engine manufacturers with recommendations for future actions.

## RESEARCH METHODOLOGY

**The study covered 21 UK retailers (one-to-one interviews with nine retail members of the BRC Logistics Working Group; and survey of 15 UK retailers) with different business profiles:**

- Sectors: Grocery, food to go, fashion, health & beauty, electricals, home & garden, outdoor leisure, and general merchandise.
- Annual UK turnover (pre-Covid): A range from £50 million to over £1 billion.
- Vehicle fleet management: 35% of retailers use 3PLs to manage their fleet, and 65% manage it inhouse or a use a mix of both.
- Vehicle range: Small vans (<3.5t), large vans (~3.5t - 7.5t), rigids (~7.5t - 18t), HGVs (>32t), and double deck trailers (44t).
- Logistics operations: single Distribution Centres (DCs), multiple DCs, store operations, eCommerce operations and a mix of both.
- Fleet operations: primary and secondary distribution and direct to customer fulfilment.



# FINDINGS AND RESULTS

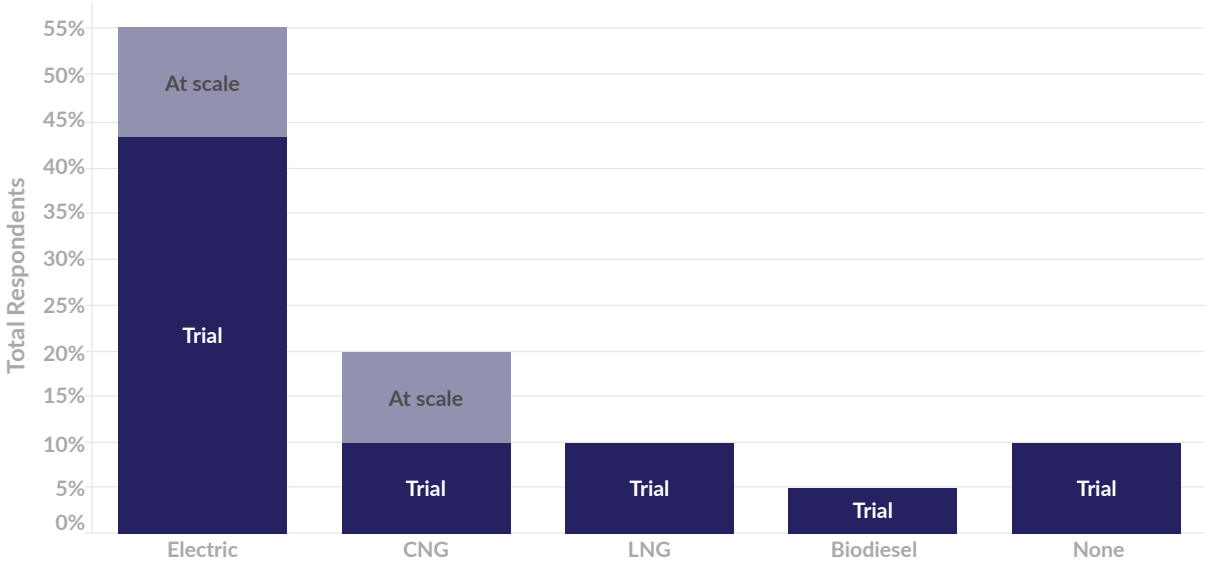
## ADOPTION OF 'GREEN' TECHNOLOGIES

All research participants are public supporters of the BRC Climate Action Roadmap, which has targeted 2035 for bringing logistics emissions to Net Zero. Of the group surveyed, 60% of respondents have the target as a stated objective for their organisation. The other 40%, most of which outsource their fleet operations, report they are still developing their targets and are facing difficulties in backing the right technology.

Most retailers identified tackling logistics emissions as a medium priority in comparison to other operational and supply chain emissions in their wider carbon footprint. However, retailers who operate their fleet in-house give it a higher level of importance than those who outsource their fleet operations. This means the retail industry must work in partnership with, not only vehicle manufacturers, but also 3rd party logistics providers, to advance towards Net Zero.

Retailers must also scale up at the right pace to reach Net Zero by 2035. Respondents that have identified a need for Net Zero vehicle logistics, and especially within those that operate their own fleets, have deployed 'Green' fuelled vehicles (88%). However, most of these initiatives (78%) are described as being at either trial stage or low scale. The remaining 22% of retailers operating at large scale are industry benchmarks and are on the right track to reducing emissions.

GREEN FUELLED VEHICLES




Battery Electric Vehicles (BEVs) are the most widely adopted 'Green' fuelled technology amongst retailers, and primarily used in Light Goods Vehicles (LGVs).

## THE CHALLENGE OF ELECTRIC HGVS

Research highlights that there are still significant challenges adopting battery technology in HGV's due to ongoing issues around battery size and weight which can reduce overall payload and vehicle range. There are also concerns over charging cycles as most HGVs undertake double shift operations where vehicles are used an average of 18 hours per day. Charging overnight is generally not an option, and current battery charge times of circa 10 hours mean that BEVs are unable to operate for the same timespan (on a daily cycle) as conventional vehicles.

> "MOST RETAILERS HAVE ADOPTED 'GREEN' VEHICLE TECHNOLOGIES BUT ARE SIGNIFICANTLY BEHIND THE CURVE TO ACHIEVING NET ZERO VEHICLE LOGISTICS BY 2035".

## BEST PRACTICES TO REDUCE GHG EMISSIONS

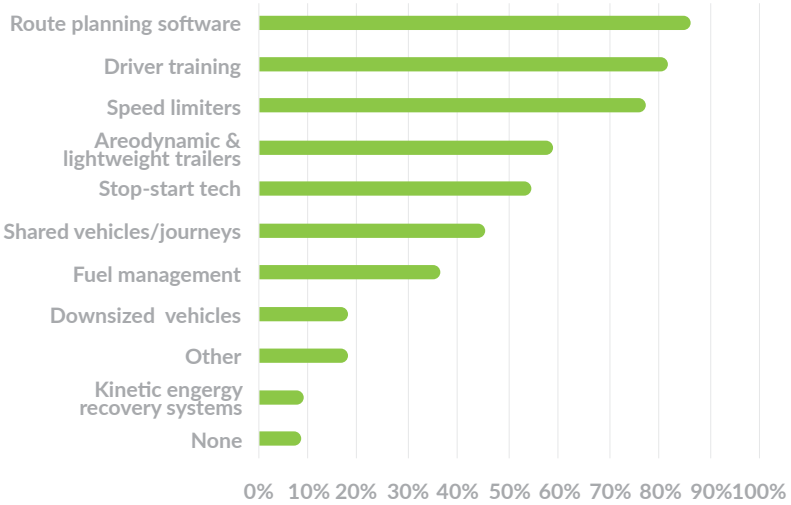
Results showed that 85% of retailers are engaged in best practices to reduce GHG emissions from their current diesel fleet. Stop-start tech, speed limiters and kinetic energy recovery systems are among the most common technologies being used. Most firms have modified their trucks to become aerodynamic, lightweight or carbon fibre, as well as ensuring their fleets run on Euro 6 engines.

The majority are also maximising efficiency with route planning software and ensuring efficient depot to store delivery scheduling - based on optimised stem mileage and volume demand by day. Retailers are using Minimum Order Quantities (MOQs) to drive better vehicle fill, as well as increasing use of double-deck trailers to reduce their fleet size and/or delivery frequency. Others have innovatively replaced small vans with electric bikes or pedal-powered vehicles to deliver parcels to customer homes.

Almost 80% of the retailers interviewed offer driver training and end of shift debrief conversations that focus on driving style and any "off-route" deviations. Retailers are aware that engaging and involving drivers is critical to delivering fuel efficiency.

Other less common practices include route sharing or backhauling, which reduce the number of additional visits to stores or distribution centres. By sharing their vehicles, even with competitors, retailers and 3PLs can maximise their synergies, reduce their fleet size and thus lower their environmental impact.

CURRENT BEST PRACTICES TO REDUCE GHG EMISSIONS




BEST PRACTICES AVERAGE COSTS AND CARBON SAVINGS

| | Av. costs per trailer (£) | % Carbon Savings |
|---|---|---|
| **Route planning software** | ~ £20,000 (overall cost or free online maps) | 20% |
| **Driver training** | | 10%-20% efficiency improvement |
| **Speed limiters** | ~ £200 | 17% |
| **Lightweight trailers** | ~ £5,000 | 10% |
| **Aerodynamic trailers** | ~ £5,000 | 7.5% |
| **Stop-start tech** | ~ £200 | 5%-7% |
| **Shared vehicles/journeys** | Free | 8%-13% |
| **Fuel management** | Free | 20% |
| **Kinetic Energy recovery systems** | +10% of total vehicle cost | 10%-15% |

*Data comes from Zemo Partnership, The Centre of Sustainability Road freight, BearingPoint experts and other sources (see references)

> ALMOST 80% OF THE RETAILERS INTERVIEWED OFFER DRIVER TRAINING AND END OF SHIFT DEBRIEF CONVERSATIONS THAT FOCUS ON DRIVING STYLE AND ANY "OFF-ROUTE" DEVIATIONS".

## KEY BARRIERS TO ROLLING OUT 'GREEN' FUELLED VEHICLES

As anticipated, almost every respondent agreed that the limited availability of charging/fuelling infrastructure is a big limitation. With a very low number of public charging/fuelling points around the UK, retailers adopting alternative fuel vehicles need to invest in building the right infrastructure at their depots. In addition to the cost of developing such infrastructure, having to do this at the depots has a knock-on effect of driving up cost or limiting depot performance. The infrastructure takes up valuable space, and there are additional needs to develop maintenance facilities. There is also a need to address additional health and safety requirements, as well as upgrade the electricity supply for battery vehicles if selected.

Unfortunately, the high costs of investing in 'Green' vehicle technologies compared to diesel vehicles, extend to vehicle purchase costs, maintenance costs, and in some cases increased fuel costs.

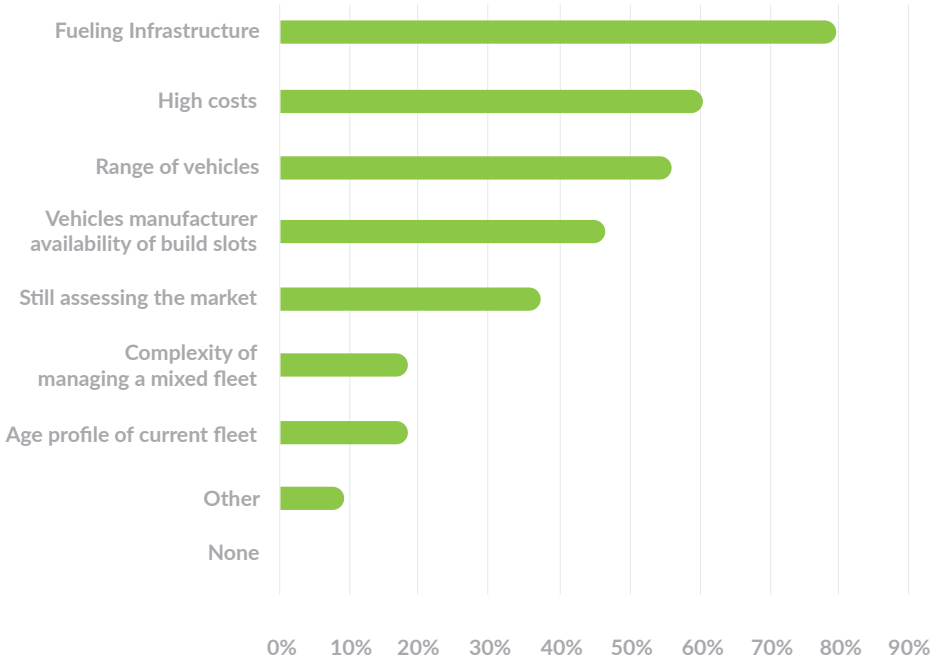
Many respondents identified the limited range of 'Green' fuelled vehicles available in the market as a big issue. Even though some manufacturers are ambitious and offer different solutions for alternative fuels, they provide an average of one to two different vehicle models/sizes, which is not enough to cover retailer needs.

A key feature of the research was retailer feedback on the lack of available and economically comparative BEV for HGV's and refrigerated hauliers, with current battery technology limiting maximum payloads. Other practical issues were raised around gas powered trucks, especially those running on Bio-LNG as they require different fuel temperatures depending on their model. Additionally, a number of UK gas suppliers have recently exited the market, letting down many fleet operators who have naturally become hesitant about future investment.

> "KEY BARRIERS TO ROLLING OUT 'GREEN' FUELLED VEHICLES INCLUDE INFRASTRUCTURE, DISPROPORTIONATE COSTS AND POOR VEHICLE RANGE".

Finally, very legitimate concerns were raised around some complex medium-term issues which could ultimately impact the resale value of trucks. Thousands of used vehicles are exported each year from the UK to low- and middle-income countries where they are given a second life. UK fleet operators are concerned that the shift to 'Green' alternatives could pose several problems to the second-hand market, as developing countries do not have the right infrastructure in place to operate 'Green' fuelled trucks. In addition, issues were raised around the disposal of BEVs' lithium-ion batteries - being non-recyclable, there is real potential for them to cause significant environmental damage unless handled responsibly.

BARRIERS TO ROLLONG OUT MORE 'GREEN' FUELLED VEHICLES



## OTHER BARRIERS RETAILERS REVEALED INCLUDE:

- Fleet replacement cycles: 2035 is just one or two cycles away in the life of vehicle fleets.
- Drivers and 3PL's resistance to change.
- A lack of motivation and knowledge of 'Green' fuelled vehicle options within some senior leadership teams.
- Ability of manufacturers to keep up with demand for low carbon vehicles.
- A need for additional driver training.
- The age profile of their current fleets – targets may change before current vehicles reach the end of their productive life.

## INFRASTRUCTURE AND VEHICLE TECHNOLOGY

All respondents agree that more needs to be done to speed up the pace of change to Net Zero vehicle logistics. The first priority is a need for UK Government to do more, to drive and facilitate change. Retailers urge Government support and investment into a faster and wider roll out of charging / fuelling infrastructure, which would solve what has been described as "the current Chicken-and-egg" problem. Businesses site a lack of public infrastructure as being an investment barrier to 'Green' fuelled vehicles, while others suggest a lack of appropriate engine and vehicle technology is holding back investment in public charging / fuelling stations.

### A NUMBER OF OTHER 'ROADBLOCKS' EXIST:

Almost 95% of respondents forecast a medium to high impact on logistics costs from a move to greener alternatives, leading to a request for financial aid in the form of grants or tax reductions.

Retailers require vehicle and engine manufacturers to speed up technological advances, provide a suitable vehicle assortment as well as clear specifications on vehicle characteristics, especially around weight and driving range.

Other requirements that will accelerate the adoption of 'Green' fuelled vehicles are greater data capabilities to analyse and confirm emissions savings, clear commitment from senior leadership to reduce emissions within the vehicle operations, and wider industry consensus on which technology to invest in.

## FUTURE LEADING TECHNOLOGY

70% of respondents feel pressure from commercial customers to transition to greener fuels. Those who operate their fleet in-house feel informed on the available options to reduce their vehicle emissions. Those who outsource their vehicle operations to 3PLs feel quite uninformed.

When it comes to identifying and assessing the current options, there is widespread agreement that specifically for HGV fleets, there is currently no technical solution that is economically attractive. Solutions vary by vehicle type; most respondents agree that BEVs are the most promising technology for vans and small rigid vehicles, but there are differing viewpoints on the relative merits of the best solutions for HGVs. Biomethane (also known as Bio-LNG and Bio-CNG), hydrogen fuel cells, biodiesel and HVO are amongst the options that retailers are considering although some of these options are far from being available at scale.

On the topic of emission measurement, half of respondents are not able to accurately measure and record the impact from reducing vehicle emissions. When considering those retailers that outsource their logistics operations to 3PL's this rises to 83%.

# RECOMMENDATIONS

THESE RECOMMENDATIONS ARE BASED ON THE OUTCOMES OF THE INTERVIEWS AND SURVEY, OTHER SECONDARY RESEARCH FROM RELEVANT ORGANISATIONS, AND BEARINGPOINT'S EXTENSIVE WORK ADVISING CLIENTS ON CURRENT AND FUTURE SUPPLY CHAIN AND OPERATIONS WITHIN THE UK CONSUMER GOODS AND RETAIL SECTOR.

## OVERVIEW OF MAIN RECOMMENDATIONS

### RETAILERS AND 3PLS

- Quicker and heavier investments into Battery Electric Light Goods Vehicles and Biomethane or sustainable HVO powered Heavy Goods Vehicles.
- Follow fleet management best practices such as route planning, improvement of vehicle fill, procurement of vehicles with eco technology, sharing journeys, and backhauling.

### GOVERNMENT

- Facilitate, support and lead change.
- Implement demand side incentives such as grants and tax deductions, public infrastructure investments and direct business support.
- Implement supply side incentives such as continued R&D funding to support vehicle and engine manufacturers.
- Replace Government's current fleet with 'Green' fuelled vehicles.

### VEHICLE AND ENGINE MANUFACTURERS

- Speed up the technological advances to extend sustainable vehicle range sizes and models, as well as vehicle capabilities like vehicle mileage and battery weight.

## RETAILERS AND 3PLS

### INVESTMENT AT PACE AND SCALE

Retailers and 3PLs need to invest more quickly and at a more intensive scale in 'Green' vehicle alternatives for the UK retail industry to reach Net Zero for vehicle logistics by 2035. However, they need support from manufacturers, infrastructure providers and Government. 'Green' fuelled vehicles operating costs are currently higher than existing diesel fleets and are also potentially more complicated to operate, especially during transition.

Research reveals that retailers who own their fleet are the ones leading change and whilst they need to do more, it is the 3PL market where the greatest change needs to take place. As technology is adopted, costs will come down and as sustainability will continue to become increasingly important, fleet operators should make a collaborative move to achieve cohesion soon.

### BATTERY ELECTRIC LIGHT GOODS VEHICLES: PROVEN TECHNOLOGY WHICH MUST BE ADOPTED MORE WIDELY

Electrification has proven to be the cleanest technology currently available. If charged from a renewable energy source, BEVs can deliver 100% Well-To-Wheel (WTW) GHG emissions savings. Vehicle and engine manufacturers have focused on BEVs as their main offering to reduce climate impact, with vehicle ranges also including electric refrigerated vans. Currently, most electric vans are ideal for businesses who operate in cities, typically transport light loads, or make 'last mile' deliveries and can charge their vans overnight. Larger fleet operators should set aggressive targets for the percentage of battery-operated vehicles in their LGV fleets. However, charging infrastructure both at base, employee's homes and on the road are likely to be necessary to support rolling this out at scale.

Even though there are cost premiums for electric vans (circa £2,000), as infrastructure improves and technology develops, retailers will benefit from electric vans' lower lifetime costs and smoother driving experiences. Additionally, the business case for operating BEVs is strengthened with savings coming from reduced fuel costs (as electricity is considerably cheaper than diesel), and reduced maintenance costs as BEVs have fewer moving parts and reduced brake wear due to regenerative breaking. In addition, BEVs are much quieter than diesel vehicles and thus help in reducing noise in urban environments. Switching to electric vehicles is not just good for the planet but has wider financial and social benefits. Now is the right time for retailers and 3PLs to commit to make the switch.

### BIOMETHANE OR HVO POWERED HEAVY GOODS VEHICLES: INVEST NOW IN BIOFUEL OPTIONS

It is unlikely that hydrogen or electric HGVs are going to be viable options at scale in the Net Zero timeline, therefore fleet operators should not sit back and wait, but should replace diesel with sustainable biofuels. BearingPoint believe the best diesel replacements for HGVs are Biomethane and HVO, which if complemented with transport efficiency, can be the available recipe for achieving Net Zero goals.

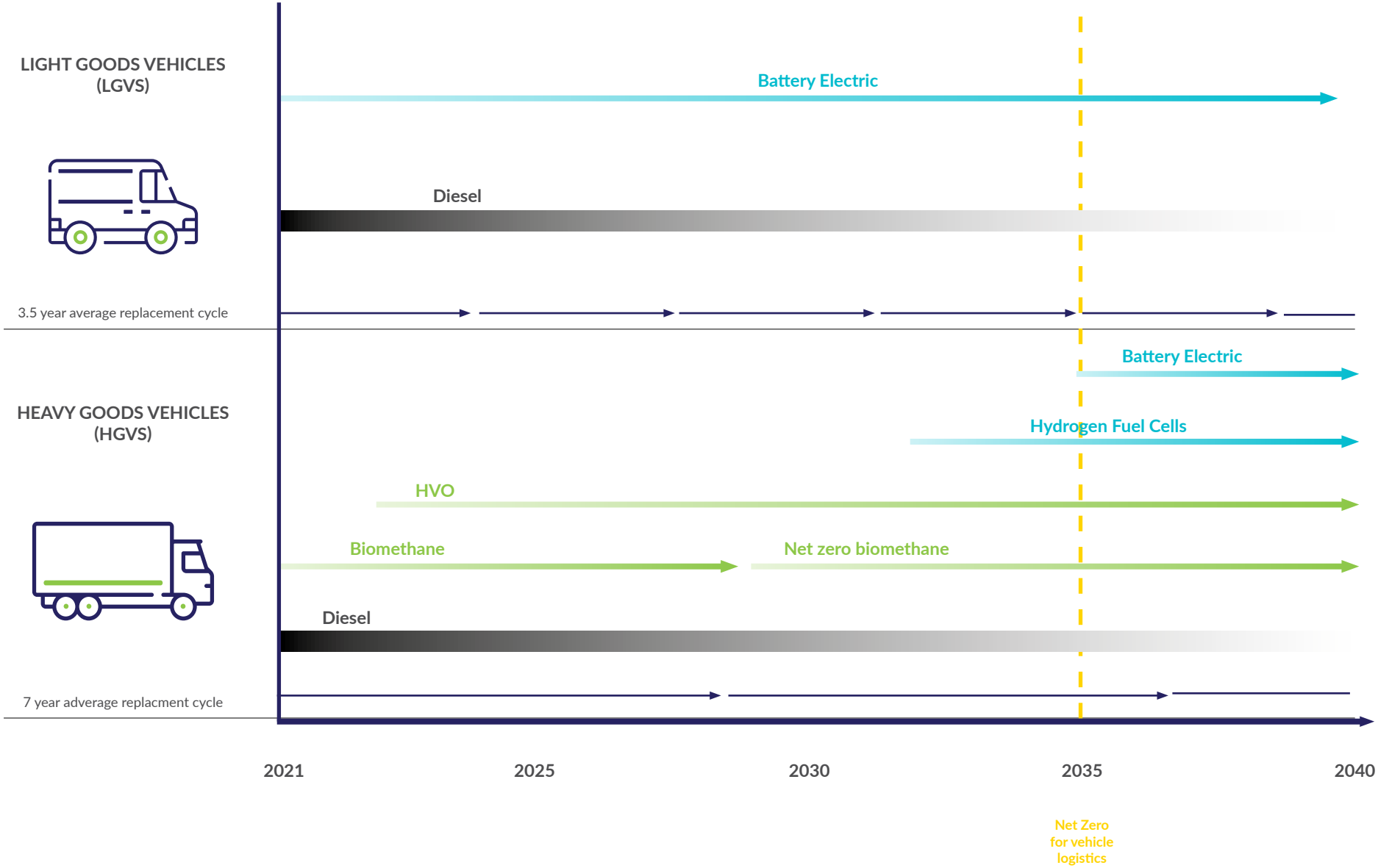
Biomethane trucks are now a mature technology and have shown an average of 88% WTW GHG emission savings compared to diesel. Some UK retailers have already rolled out Bio-CNG trucks at scale and have saved up to 40% on their fuel bill, which translates into £19,200 annual savings per truck. Although gas powered HGV vehicle and maintenance costs are around 25% more than those of conventional diesel equivalents, biomethane is 30-40% cheaper than diesel, providing significant cost savings to fleet operators with high annual mileages.

The UK demand for biomethane-powered trucks more than doubled last year and is forecast to triple during 2021, according to industry experts. Market confidence is growing and biomethane is proving to be a good immediate alternative to diesel, subject to a sustainable supply and suitable national infrastructure becoming available. Temperature controlled operators also require a net zero solution for refrigerated trailers to ensure full compliance.

Sustainably sourced HVO has been shown to be quite successful. In Sweden, data shows that it saves 91% on WTW GHG emission as compared to diesel. Despite this, HVO is not as common in the UK due to low supply availability and some reluctance from manufacturers to endorse the solution. Besides, it is diesel's dominance that promises HVO's success; both fuels are chemically identical and can be substituted without additional changes to engine or infrastructure. This not only poses a great opportunity for fleet operators to scale up quickly, but also reduces their fears of committing and making risky investments. Additionally, in cases of emergency, retailers running HVO trucks have the option of refuelling with diesel, and therefore also less reliant on third-party fuel providers. As the UK's supply of HVO continues to grow, fuel price is likely to decline and reach diesel levels, strengthening the business case for this biofuel.

## FLEET OPERATORS NEED TO MAKE CHOICES TODAY FOR 2035

Whilst 2035 semms like a very long time away this is just one or two cycles away in the life of some vehicle fleets



| AVERAGE WELL-TO-WHEEL GREENHOUSE GAS EMISSION SAVINGS BY VEHICLE/FUEL TYPE | | |
|---|---|---|
| **Vehicle Type** | **Fuel** | **WTW GHG Emissions Savings*** |
| **Light Goods Vehicles** | Diesel | Basis |
| | B20 | 17% |
| | B100 | 87% - 92% |
| | HVO | 92% |
| | Biomethane | 82% - 94% |
| | BEVs - charged from national grid | 50% - 70% |
| | BEVs - charged from renewable sources | 100% |
| **Heavy Goods Vehicles** | Diesel | Basis |
| | B20 | 17% |
| | B100 | 87% - 92% |
| | HVO | 92% |
| | Biomethane | 82% - 94% |

*as compared to diesel

| CO2E WELL-TO-WHEEL KG PER 100,000KM Calculated with BearingPoint's Emissions Calculator | | | |
|---|---|---|---|
| **Vehicle Type** | **Vehicle Size** | **Fuel Type** | **$CO_2e$ (WTW) [kg] / 100,000km** |
| **Light Goods Vehicles** | Rigid 3.5-12t | BEV | 1,319 |
| | Van | Diesel | 68,009 |
| | Van | B20 | 63,909 |
| | Van | B100 | 38,805 |
| | Van | BEV | 2,249 |
| **Heavy Goods Vehicles** | Artic 40t | Diesel | 8,001 |
| | Artic 40t | B20 | 7,460 |
| | Artic 40t | B100 | 4,537 |
| | Rigid 12-20t | Diesel | 15,002 |
| | Rigid 12-20t | B20 | 14,210 |
| | Rigid 12-20t | B100 | 8,641 |

## BEST PRACTICES TO REDUCE GHG EMISSIONS

**Using alternative 'Green' fuels does not exempt retailers and 3PLs from following fleet management best practices. Identified best practices include:**

### PROCURE CLEAN EFFICIENT VEHICLES:

- Procure double deck trailers where appropriate - vehicle fill will be achieved to reduce fleet size.
- Prioritise vehicles that come with eco technology like stop-start, speed limiters, kinetic energy recovery systems, regenerative braking systems and congestion predication.
- Prioritise vehicles that are aerodynamic and lightweight.
- Downsize vehicles where possible.

### MANAGE VEHICLES EFFICIENTLY:

- Dynamic vehicle routing and congestion predication.
- Ensure periodic vehicle maintenance is performed (check tyre pressures, blocked filters, etc.).
- Provide driver training and support with app-based tech like **Lightfoot.**
- Use Sustainability Road Freight (SRF) software tools including **SRF Loggers** and **SRF Optimisers** to track vehicle performance data, measure fuel consumption and improve fuel management.

### DRIVE LESS:

- Use route planning and network optimisation software.
- Share vehicles and journeys with other fleet operators.
- Use alternative modes of transport for last mile deliveries such as electric bikes, pedal-powered and vehicles.

### 'GREEN' CUSTOMER DELIVERIES:

- Offer 'Green' delivery options to customers and ensure they are competitively priced.
- Inform customers on GHG emissions of each delivery option.
- Encourage customers to avoid placing next day deliveries.

# GOVERNMENT

In 2019, the UK Government committed to make the UK a Net Zero GHG emitter by 2050, but they must do more to facilitate and support change. The Government needs to develop a "Road Map" that creates a level of certainty for fleet operators to make the appropriate investments in 'Green' solutions. This is vital for a sector where decarbonisation, especially for HGVs, is difficult. The industry needs clarity, consistency, and support.

BearingPoint believes the Government should implement the following policies and direct business support to incentivise and aid retailers in creating a universal solution for net zero.

## DEMAND SIDE INCENTIVES:

- Grant and tax incentives to ensure a wider uptake of 'Green' fuelled vehicles.
- 0% VAT rate on new 'Green' fuelled vehicle purchases, and reduced VAT for second-hand purchases.
- Enhanced capital allowances of 'Green' fuelled vehicles.
- Wider roll out of public charging/fuelling infrastructure (numbers, availability and reliability are key), especially fast charging infrastructure along the major roads, with targets of when this will be achieved.
- • Government support and investment in charging/fuelling infrastructure at fleet depots, including funding grid reinforcements

## SUPPLY SIDE INCENTIVES:

- Continued R&D funding to support vehicle and engine manufacturers with technological advancements and innovations in 'Green' fuelled vehicles and their infrastructures.
- Manufacturing incentives for the UK automotive industry to support investment in giga factories for battery manufacture and assembly in the UK.

## OTHER INCENTIVES:

- Government should lead change and replace their own fleet to be completely ultra-low emission.
- Government should require their contracts to be fulfilled by alternative fuel vehicles.
- Extend delivery times and reduce restrictions in certain geographical areas, for example in London.
- Changes to weights and dimensions regulations that permit the use of larger vehicles that increase efficiency.
- Set a standardized plug for electric vehicles.
- Consider introducing legislation to ensure that businesses transition to 'Green' vehicles within the right timescales (especially within the HGV market), and to support that change ensure suitable provision of sustainable and affordable alternative fuels.

## VEHICLE AND ENGINE MANUFACTURERS

Leading vehicle and engine manufacturers are aware of the increased demand for alternative fuelled vehicles and are investing significantly in sustainable transport. Most of them offer electric van alternatives, suitable for urban and city areas, but currently there are no electric alternatives for HGVs.

There is urgency for vehicle and engine manufacturers to speed up the technological advances on alternative fuel vehicles. Their focus should be on extending their sustainable vehicle range sizes and models, as well as vehicle capabilities like vehicle mileage and battery weight to meet retailer's and 3PLs' needs.

Truck manufacturers like Scania, Iveco, and Volvo, are amongst those that offer gas-powered trucks, mainly CNG and LNG, that suit heavier assignments on longer distances. Scania is the leading manufacturer offering the widest range of ready-to-go gas, hybrid, bioethanol, biodiesel and HVO engines that satisfy Euro 6 requirements.

Additionally, demand could be boosted if vehicles are priced more competitively against current diesel alternatives and if extended vehicle warranties are offered. Again, the UK Government plays a key role in incentivising manufacturers to scale up their R&D investments so that a greater range of cost-efficient vehicles can be released into the market much faster. Fleet operators are willing to invest in 'Green' alternatives, but if the vehicles in the market do not meet their needs, procurement will be postponed.

# MINI-GUIDE FOR RETAILERS

1

### SWITCHING TO EVS: IN-HOUSE

- Understand your operating footprint, what distances do vehicles need to cover?
- How is your team structured? Work from home, work from base, franchise? This will drive your infrastructure requirements.
- Research vehicles which meet your operating requirements and infrastructure needs.
- Prioritise rollout in areas with the greatest support network and available infrastructure.
- Stay close to future innovation, more choice of longer-range vehicles is coming soon.

2

### SWITCHING TO EVS: 3PL

- Review 3PLs low carbon delivery solutions, what is available and where is it?
- Review cost differentials for EVs and whether it is available for all services.
- Share business vision for net zero and look to align 3PL through current and future contracts.
- Work with 3PLs to understand best practice for your sector from their local, regional and global presence.
- Review the KPI's used within contracts to ensure that net zero carbon enablers become a key performance measure.

3

### SWITCHING TO BIOMETHANE & HVO: IN-HOUSE

- Map current network operations to identify opportunities for sustainable fuels, for example specific depots.
- Review manufacturer claims against in-house data rather than industry averages to better inform business cases.
- Understand if your current fleet can operate on HVO.
- Engage sustainable fuel suppliers to understand their available coverage, reliability of supply and fuelling options for your operation.
- dentify manufacturers who can meet the current and future vehicle replacement demands, who have demonstrable vehicle performance data and a suitable support network.

4

### SWITCHING TO BIOMETHANE & HVO: 3PL

- Share your net zero commitments with your 3PL and build performance improvement into current and future contracts.
- Understand 3PL experiences deploying low emissions vehicles in other contracts.
- Look for opportunities for your 3PL to share deliveries across contracts with the goal of reducing journeys and maximising vehicle fill.
- Leverage infrastructure opportunities with 3PLs to accelerate rollout through use of multiple locations and out-bases.
- Consider separating transport and warehouse contracts to allow for engagement of operators who offer a faster route to net zero.

# CONCLUSION

Retailers have adopted carbon reduction strategies and are working towards net zero logistics, but there is a recognition that more is required from government and industry to support the UK's journey towards a net zero future.

Good practice highlights that retailers can do more and should be much more aggressive about reaching earlier targets. BearingPoint concludes that for the UK retail industry to reach net zero for vehicle logistics by 2035, transformative change across the industry and supply chain are required and are required now.

- The UK government should lead the way by providing clarity and consensus on the right technologies as well as introducing incentives and direct support to fleet operators
- Manufacturers should continue speeding up technological advances and closely listen to retailer's needs
- Finally, retailers and 3PLs need to commit to electrifying their Light Goods Vehicles and replace their diesel Heavy Goods Vehicles with biomethane or HVO

Time is short, retailers need to use the available technology and make decisions today to deliver savings in time for 2035. Collaborative action from all stakeholders is the key to transforming the UK into a net zero emissions country.

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## BRC CLIMATE ACTION ROADMAP

BRC's Better Retail Better World campaign commits the retail industry to build a fairer, more sustainable economy in line with the UN Sustainable Development Goals. One of the critical goals determined by us and our stakeholders is Climate Action.

The BRC Climate Action Roadmap is the framework to guide the industry to Net Zero.

Supporters of the BRC Climate Action Roadmap commit to working with other retailers, their suppliers, Government and other stakeholders, and to support customers to collectively deliver the industry's Net Zero ambition.

## DP WORLD

DP World is partnering with the BRC on the Climate Action Roadmap, helping retailers move to low carbon logistics.

DP World in the UK is at the heart of Britain's trading future, providing the right trading infrastructure and smart logistical solutions for our customers. We believe in the UK market and have the ambition and the resources to boost growth, support businesses, create jobs and improve living standards.

We have created a high-quality integrated business – two deep water ports with freight rail terminals at London Gateway and Southampton, a rapidly expanding logistics park, and an advanced software business providing online links to customers and border control.

**brc.org.uk/climate-roadmap**

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