

# DECARBONISING TRANSPORT

A LOGISTICS MAGAZINE SUPPLEMENT

## VIEW FROM GOVERNMENT

★ *Transport Minister delivers an update  
on decarbonising logistics*

## ACADEMIC INSIGHTS

★ *Interview with Professor Alan McKinnon*

## ELECTRIFYING LOGISTICS

★ *The challenge of decarbonising  
van fleets*

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Autumn 2021

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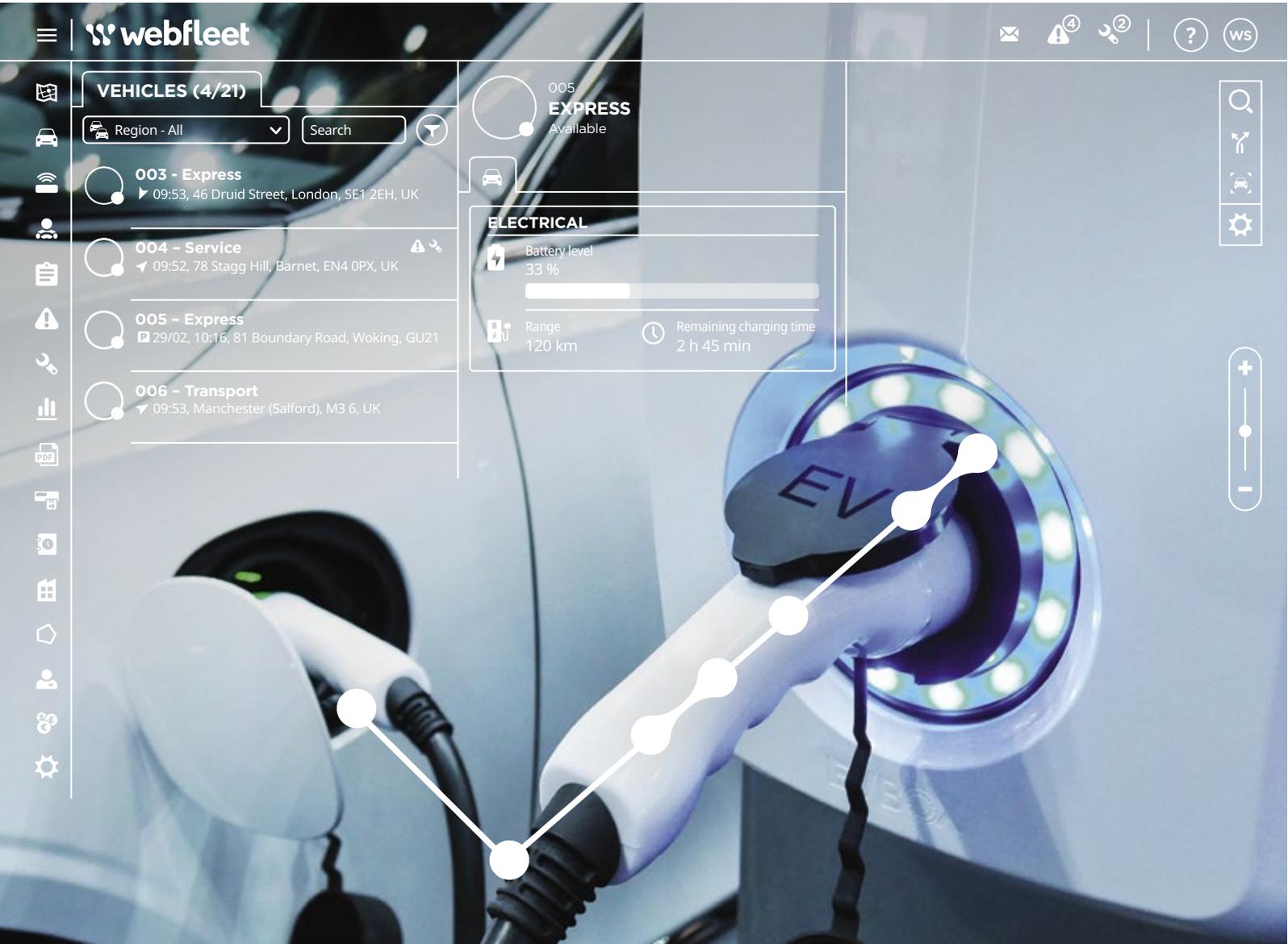


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# DECARBONISING TRANSPORT



**David Wells**

Chief Executive, Logistics UK



## Welcome

When the government published its *Transport Decarbonisation Plan* in July this year, it heralded a revolution in logistics. A long time in gestation, the plan is both ambitious and comprehensive in its approach, spanning all modes of transport, from walking and cycling to maritime and aviation.

It also takes a long view, offering a route map on the steps that must be taken for both passengers and freight transport to decarbonise and achieve net zero emissions by 2050.

Alongside the plan, the government also announced its intention to phase out the sale of new diesel and petrol HGVs by 2040. Logistics UK has welcomed both the plan and the consultation, as they give logistics companies clarity on the steps they will need to take to decarbonise their operations and move forwards with confidence.

In this supplement, Transport Minister Rachel Maclean MP outlines the government's view on how this decarbonisation challenge will specifically impact on the logistics sector (see page 6). But as well as the government's take, we thought it important to include a range of views from industry and academia, even when these do not agree with our own.

Following the publication of the plan, Logistics UK launched its own campaign – Route to Net Zero – in the summer. This is designed to help our members to commit to decarbonising their operations as quickly and effectively as possible. We in no way underestimate the scale of the challenge ahead, particularly as the technology is still in development for many areas of logistics, but our activity in this space aims to deliver tangible and real-world results.

As the UK transitions to a net zero economy, we must all play our part in helping the government to achieve its ambitions. This supplement is designed to form a useful digest of some of the current thinking on both the mammoth challenge and enormous opportunity that decarbonisation promises to deliver for our industry.

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**Greg Ward**

Commercial Sales Director,  
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**Carlos Rodrigues**

Managing Director,  
Renault Trucks UK &  
Ireland

Renault Trucks welcomes the government's *Transport Decarbonisation Plan* and its ambition to bring about a zero carbon transport system. We continue to lead the UK market towards zero carbon, with the widest range of fully electric commercial vehicles available from any manufacturer. Today's Master Z.E. and Range D Z.E. ranges will soon be joined by more models, including fully-electric tractor units, extending beyond the current city service and distribution sectors into construction and longer-distance applications.

As we approach the COP26 UN Climate Change Conference we would encourage other companies to join us in making their own zero carbon commitments – Renault Trucks UK

is working to be net zero by 2030, the same date by which 35% of our trucks sold across Europe will be fully electric.

The coming years will see the most extensive and comprehensive change ever seen in our industry. As you consider your net zero journey, find a partner as committed to sustainability as you are!

★ [www.renault-trucks.co.uk](http://www.renault-trucks.co.uk)



**Beverley Wise**

Sales Director, UK and  
Ireland, Webfleet Solutions

Electric passenger cars have been the motor industry's headline-makers in the EV revolution, but the road to zero also calls for commercial vehicles' decarbonisation.

Recognising this, the government's big announcement ahead of the UN Climate Change Conference has been a proposed end date of 2035 for the sale of new internal combustion engine (ICE) vehicles weighing more than 3.5 tonnes and 2040 for vehicles weighing more than 26 tonnes.

Tech innovations must now take centre stage as we collectively strive to deliver on the 'greenprint' to decarbonise all modes of transport.

For logistics operators, data intelligence that enables the right decisions to be made at the right times is crucial – notably for the adoption of EVs, and their ongoing management.

Telematics offers the go-to solution, with dedicated software signposting the electrification potential of transport fleets, and optimising EV operations via a range of connected tools that provide access to everything from mapped charging infrastructure and vehicle charging insights to real time battery levels and remaining driving ranges.

Such innovations supporting the transport sector's green ambitions will be pivotal in accelerating our drive to a zero carbon future.

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**Rachel Maclean MP**  
Transport Minister

In July this year government published Decarbonising transport: A Better, Greener Britain. This is the biggest piece of work we have ever done to tackle the damaging greenhouse gas emissions emitted from transport. It lays out a path for the entire transport sector, including the hardest to decarbonise modes, to clean up and reach net zero by 2050.

**LOGISTICS HAS A KEY ROLE TO PLAY**

Freight is a vital part of the solution to this significant challenge that impacts us all.

The UK's road freight sector is indispensable, contributing £13.6 billion to the UK economy in 2019 and facilitating the seamless transportation of goods that we all rely on. However, road freight makes up 16% of domestic transport's annual CO2 emissions. It is imperative we act now to tackle emissions from the road freight sector so we can build back greener and unlock many of the significant benefits – cleaner air and reduced congestion to name a few.

**ZERO EMISSION TECHNOLOGY FOR HGVS**

We know there is currently no straightforward zero emission technology for heavy goods vehicles. That is why we have committed £20 million this financial year to plan for zero

emission road freight trials that will put hydrogen fuel cell and battery electric HGVs and their refuelling infrastructure into operation on UK roads. At the same time, new battery electric HGVs, built by Leyland DAF, will start running on roads across the country, delivering supplies for the NHS and others. These trials will break down barriers to adoption for potential operators and support the uptake of battery electric HGVs across the road freight industry.

**SHOWING GLOBAL LEADERSHIP**

In November the UK will provide global leadership on climate change as President Designate and host of COP26 in Glasgow. This provides a unique opportunity and platform for the UK to show the world that we are determined to deliver on our net zero ambition and are already acting on it.

**ENGAGING WITH INDUSTRY**

Over the summer we consulted on potential phase out dates for the sale of new non-zero emission HGVs, and I want to thank Logistics UK and its members for their valuable contributions to this. Our proposed phase out dates are ambitious but feasible and, if introduced, will position the UK as a world leader in decarbonised road freight. This will drive innovation and create a market for zero emission commercial vehicles right here in the UK.

**IMPORTANT FIRST STEPS**

While fully zero emission HGVs might seem far off, there are steps hauliers can take now to reduce emissions and release concurrent benefits including improved air quality and reduced operational costs. I urge Logistics UK members to visit the revamped Freight Portal, hosted for us by the

**Over the past eighteen months the logistics industry has shown incredible fortitude. From keeping food on our plates, to stocking our shops and delivering vital supplies of PPE, I want to thank you for your invaluable contributions.**

# Decarbonising logistics – the view from government

Energy Savings Trust, which showcases measures being used today, such as vehicle adaptations and driver training that are supporting fleet operators to navigate those important first steps towards decarbonisation.

## HELPING BUSINESSES MAKE THE SWITCH

We're also taking steps to reduce the purchase price for consumers. The government's plug-in truck grant covers 20% of the purchase price of zero emission commercial vehicles, with up to £25,000 of funding available for the largest HGVs. As more zero emission trucks enter the market, the plug-in truck grant provides an opportunity for fleets to make the switch and release early carbon savings.

## DRIVING BRITAIN TOWARDS A GREENER FUTURE

As we look forward to COP26 in Glasgow, it is on us all to grasp the real opportunities that the transition to zero emission freight presents and commit to tackling emissions head on. By working together, we can not only deliver a zero-emission road freight sector but ensure the sector prospers on its journey, driving Britain to an ever brighter, greener future. ■

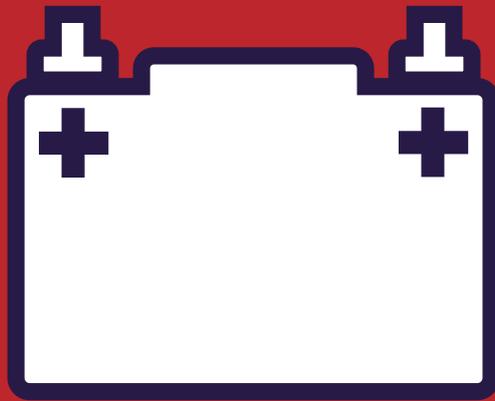


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# Government plan is ambitious, but how much support will it offer?

**Green is the colour of the government's transport ambitions, but how much support is it prepared to offer to speed up the UK's transition to zero carbon fuel alternatives? Is the *Transport Decarbonisation Plan* really a 'greenprint' for the future?**

## ENGAGING WITH OPERATORS

Renault Trucks has spoken individually to many of the country's leading vehicle operators to learn first-hand the challenges they face in moving from diesel to zero carbon alternatives. Does the government's *Transport Decarbonisation Plan* address their questions around electric vehicle suitability, charging, infrastructure and energy management, cost and the long-term sustainability of the new technologies? Is it reasonable or even possible to stop selling diesel trucks by 2035 or 2040?

## MANUFACTURERS MUST DELIVER

Government seems confident that OEMs (Original Equipment Manufacturers) can deliver zero carbon solutions, and Renault Trucks would concur with this. Our Master Z.E. range offers fully electric last mile and city service solutions from vans to minibuses to caged tippers to cherry pickers. Range D Z.E. models can fulfil multiple distribution and specialist urban vehicle solutions, up to and including 26t refuse vehicles; plans are in place for zero carbon solutions construction models and tractor units in 2023. We can certainly supply comprehensive vehicle solutions to meet the dates indicated in the Plan.

## INFRASTRUCTURE PARTNERS

Government suggests that there should be enough energy to power the zero carbon journey, although the Plan lacks detail in this area. Renault Trucks' approach is to introduce expert infrastructure partners alongside our product recommendations – energy supply needs careful consideration at the beginning of the process.

## GOVERNMENT FUNDING DOES NOT MATCH ITS AMBITION

The Plan does not indicate how the transition can be funded. While many other European countries are taking a more generous approach to electric vehicle funding, the UK's

Plug-in Vehicle Grants were mostly reduced in March, which seems at odds with our wider decarbonisation ambitions. It is good to see the role of interim solutions such as HVO synthetic diesel identified in the Plan.

## SUSTAINABLE ZERO CARBON SOLUTIONS

Sustainability legislation lags advances in vehicle technology so the Plan can perhaps be excused for lacking detail. Renault Trucks has committed to meet the most stringent standards for sourcing, production and disposal of batteries, allowing operators to choose genuinely sustainable zero carbon vehicle options.

## NEED FOR MORE DIRECT GOVERNMENT INVOLVEMENT

The *Transport Decarbonisation Plan* expresses big ambitions which in many ways reflect those of Renault Trucks. As pioneers in electromobility we already have the widest electric range of any OEM and have committed that 10% of our sales will be electric by 2025, 35% by 2030 and 100% fossil-free by 2040. We will continue to help UK operators introduce new energies and new vehicles to their fleets but government must be more directly involved in the transition than it has been so far. Only when we all play our part can we look forward to a truly sustainable zero carbon transport system.



**Andrew Scott**

Head of Electric Mobility,  
Renault Trucks

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[www.renault-trucks.co.uk](http://www.renault-trucks.co.uk)



# Plotting the route to net zero

The climate crisis is one of the most pressing challenges facing the global community, and the UK logistics industry understands the part it must play in decarbonising the nation's economy. The UK became the first major global economy to pass a law that requires it to achieve net zero greenhouse gas emissions by 2050, and, in July 2021, the government released its *Transport Decarbonisation Plan*, which details its intention to phase out the sale of new zero emission (at the tailpipe) HGVs by 2035 for those up to 26 tonnes and 2040 for those up to 44 tonnes, subject to consultation. This is, in addition to a 2030 phase out date for polluting cars and vans, with the date extended to 2035 for hybrids.



**Michelle Gardner**

Head of Public Policy,  
Logistics UK

## FIRST STEPS TO LOW CARBON LOGISTICS

We know our members are taking important steps already to help lower greenhouse gas emissions across their operations, with many investing in lower carbon fuels and technologies, changing their business practices to improve the efficiency of their fleet operations, and providing training to encourage good driver behaviours to lower fuel consumption and emissions. But to achieve net zero by 2050, much more needs to be done across all logistics transport modes and all parts of the supply chain. Over the coming weeks, months and years, Logistics UK is committed to working with our members, the government and policymakers to help make this goal a reality.

## CAMPAIGNING FOR CARBON NEUTRALITY

A key component of this work is Route to Net Zero, a new campaign Logistics UK launched in July 2021 to encourage our members to commit to decarbonising their operations as quickly, effectively and as urgently as possible, to help the UK achieve carbon neutrality ahead of the legal deadline of 2050. We know the pathway to net zero will be challenging for many of our members, as the technology solutions are still being developed, but we will ensure our work in this space is meaningful and can be translated into real action and tangible results.

## SEVEN KEY PRIORITIES

To help the government and policymakers understand how it can help industry realise the net zero ambition, Logistics UK published its *Route to Net Zero Logistics* policy briefing paper at the Innovation and Technology in Transport (ITT Hub) event in June 2021, which lays out seven key priorities to decarbonise the industry successfully.

## AVAILABILITY OF ELECTRIC VEHICLES

To achieve net zero, industry needs the right technologies and vehicles that are commercially viable, with the right supporting infrastructure. The results of Logistics UK's May 2021 Logistics Performance Tracker survey lays bare the work that respondents believe needs to be done in this space: just under 70% of respondents were dissatisfied or very dissatisfied with the availability of electric HGVs, and 37% for vans. Currently, there is significant uncertainty

## GET INVOLVED

★ [www.logistics.org.uk/environment/netzero](http://www.logistics.org.uk/environment/netzero)

## ROUTE TO NET ZERO LOGISTICS PAPER

Logistics UK identified seven key priorities to achieve net zero greenhouse gas emissions across logistics operations as quickly as possible:

- 1 Detailed policies and incentives, building on the *Transport Decarbonisation Plan*, to provide further confidence and clarity for the logistics industry.
- 2 Certainty on commercially viable, zero tailpipe emission technologies for HGVs by the mid-2020s.
- 3 Incentives to help overcome higher upfront purchase prices, until the market matures.
- 4 Rapid development of recharging and refuelling infrastructure for all commercial vehicles.
- 5 A fair and equitable approach to funding power upgrades for depots.
- 6 A clear policy framework to support alternative fuels for HGVs that can lower emissions today.
- 7 Research and investment into a multimodal approach for logistics, helping support the movement of goods via rail, water and air.





over which fuels will be the most appropriate for HGVs, with differing views around hydrogen, electrification and electric road systems. Logistics UK is urging the government to provide certainty on commercially viable, zero tailpipe emission technologies for HGVs by the mid-2020s; industry will also need to be provided with incentives to help overcome higher upfront purchase prices, until the market for zero emission vehicles matures.

### INFRASTRUCTURE CONCERNS

With 70% of respondents to the survey also either dissatisfied or very dissatisfied with the availability of supportive infrastructure for alternatively fuelled vehicles, the government must commit to ensuring public refuelling and charge point infrastructure can be rapidly developed, installed and is accessible for use by commercial vehicles, with the strategic road network a priority. Depot charging will be essential, especially for van operators, so a fair and equitable approach to funding power upgrades is needed if this technology is to be adopted.

### COP26 MANIFESTO

Logistics UK is now developing a comprehensive policy manifesto ahead of COP26 in November 2021; this document will build on the *Route to Net Zero Logistics* paper and aims to provide more detailed recommendations and steps that are needed to make net zero a reality for logistics as quickly as possible.

For more information on Logistics UK's environmental work and details on how you can get involved with *Route to Net Zero*, please visit [www.logistics.org.uk/environment](http://www.logistics.org.uk/environment) or contact Michelle Gardner, Logistics UK's Head of Public Policy on [MGardner@logistics.org.uk](mailto:MGardner@logistics.org.uk) ■

## TRANSPORT DECARBONISATION PLAN

On 14 July 2021, the government released the *Transport Decarbonisation Plan*, its strategy to decarbonise all modes of domestic transport by 2050. The plan includes an intention to consult on a world-leading pledge to end the sale of all new, polluting road vehicles by 2040 and achieve net zero aviation and rail emissions by 2050.

Elizabeth de Jong, Director of Policy at Logistics UK, comments:

*"The Transport Decarbonisation Plan will help to provide logistics businesses with confidence and clarity on the steps they must take on the pathway to net zero. Consultation on proposed phase-out dates for new diesel HGVs, progressing the zero emission HGV and road freight trials and developing a strategy for low carbon fuels should enable business to move forwards with confidence. Rail, shipping and aviation are all essential parts of logistics, so plans to support freight modal shift and develop technologies to reduce emissions across these modes are welcome. With logistics already embracing the need to decarbonise its operations, Logistics UK looks forward to working in partnership with the government on future action and strategies to realise the net zero ambition together."*





# The view from academia

**While on leave from his post at Kuehne Logistics University in Hamburg, Professor Alan McKinnon boarded a flight at the end of February 2020 to his native Scotland. As the COVID-19 pandemic swept across Europe, the subsequent national lockdowns in the UK and restrictions on travel means that he has remained there ever since. One unintended consequence of his enforced stay in Scotland is that it has put him back in closer touch with policy developments in logistics in the UK.**



**Matt Harrington**  
Editor

## HIGH HOPES

Along with other academics in his field, McKinnon keenly awaited the publication of the UK Government's *Transport Decarbonisation Plan*, and was hopeful that it would contain ambitious targets and commitments to meet the government's target to cut 78% of CO<sub>2</sub> emissions from the economy as a whole by 2035 against a 1990 baseline.

"Freight and logistics contribute a significant amount of CO<sub>2</sub> to the atmosphere in the UK and therefore if we're going to reach that target we're going to have to largely decarbonise freight and logistics over that time frame," he said, "So the expectation was that there would be clear guidance on how that was going to be achieved, with some fairly firm government commitments."

## LACKS CLEAR TARGETS

However, once he had read the plan, McKinnon thought it lacked clear targets, a clear indication of how the government plans to cut logistics emissions over the next 15 years and a general sense of urgency.

"Leaving aside the UK government's target, everybody in the climate change world now accepts the next ten years will be critical. Globally we've got to get our CO<sub>2</sub> emissions down by 7.6% per annum over the next ten years to achieve that. Therefore, we have to act very quickly."

## CONSULTATION AS PROCRASTINATION

One concern he has is the plan's multiple references to future consultations on areas that have already been the subject of considerable research and discussion.

"We do not need to embark on a new round of consultations," he said, "To my mind, that is just procrastination. We should act on what we know, and we will need to do some fairly radical things. And that really doesn't come across from the freight content of this document."

McKinnon is also concerned about the plan's heavy reliance on technology and a new generation of low or zero-carbon trucks, which he does not believe will be in mass use until well into the 2030s. "We have to do things in the near term," he said.

## SPEED OF IMPLEMENTATION

Does McKinnon think that the plan moves the decarbonisation of logistics as far and as fast as it needs to go to achieve net zero transport emissions by 2050?

"Far from it," he replied, "We have to deploy measures that will make significant reductions in freight CO<sub>2</sub> emissions in the next five to ten years. And there's precious little in this report about how we do that."

McKinnon argues that managerial, operational, and behavioural (MOB) measures can be implemented quickly while logistics is waiting for the technology to catch up.

"There's very little reference to those measures," he said, "Very little guidance to shippers, to the users of freight services as to what they should be doing to decarbonise. The onus is very much on the providers of the technology, the vehicle manufacturers and to a lesser extent the logistics providers."

"If I was a supply chain director of a major UK business seeking advice on how to decarbonise my supply chain with the government's help, that doesn't come across in this document at all."

## ACADEMIC INSIGHT

★ [www.alanmckinnon.co.uk](http://www.alanmckinnon.co.uk)

## MODAL SHIFT

One of the MOB measures mentioned in the plan is to encourage modal shift of freight from road to more sustainable alternatives, mainly rail. Again, McKinnon argues this is an area that has already been the subject of considerable discussion over many decades.

“At some unspecified time, they’re going to declare a target for how much freight should be shifting to rail,” he said, “We have been debating freight modal shift for 60 years. There have been plenty of studies and policies on this in the UK and elsewhere. We do not have to go back to first principles and say, ‘What do we have to do to get more freight onto rail?’”

## INSTITUTIONAL AMNESIA

McKinnon is also highly critical of the plan’s cursory mention of the use of digitalisation and artificial intelligence to help decarbonise freight transport, another area where a lot of research has already been undertaken and which a recent survey suggested could be transformational over the next five years.

He compares the plan unfavourably with the government’s first sustainable distribution strategy published in 1998, which he describes as a more substantive document, particularly in its appreciation of logistics and supply chain management.

“We’ve had 23 years of experience, research and consultation on sustainable logistics in the UK with ten years of the government’s Freight Best Practice Programme followed by another decade of the industry-led Logistics Carbon Reduction Scheme, neither of which get a mention in this document. This is an example of what I call the government’s institutional amnesia. It appears that a new generation of civil servants have taken over, not done their homework to look at what’s been done, to see how we can build on previous knowledge and experience. And that’s very frustrating, because as I’ve said we’ve got to act quickly. We can’t just endlessly debate these issues.”

## SETTING THE AGENDA

In the introduction to the plan, the UK is referred to as a climate leader and the first major economy to set legally binding carbon budgets.

Given his experience and knowledge of decarbonisation measures in Europe, however, McKinnon fails to be convinced by this.

“We don’t need to be internationally leading,” he said, “we just have to be effective in what we do and be competent.”

He contrasts the plan to comparable documents in Germany, which look at all the measures you can deploy to decarbonise freight transport and quantify them.

“Some are technological, some are behavioural, some are regulatory,” he said, “The German government has been much more explicit in its modelling of the likely carbon impact of these measures.”

Also, while the UK is still thinking about electrifying highways for lorries, Germany has embarked on trials and already

has two electrified catenary highways in place. Meanwhile, Sweden has a fairly advanced fossil-free freight (‘triple F’) programme and the Netherlands has piloted truck platooning, among other things.

“What disappoints me is that there’s little evidence in the document that the government has looked at what is happening elsewhere,” McKinnon said, “It presents a rather parochial view of how we do this. We could be saying let’s look at what other countries have done, and learn from their experience to share knowledge on how to decarbonise freight transport.”

## TRANSFORMATIVE TECHNOLOGY

The policy push laid down in the government’s plan is intended to galvanise the Original Equipment Manufacturers (OEMs) and others to switch to manufacturing zero-emission vehicles at scale, but McKinnon’s first concern is for the emissions of the existing fleet, given that the average age of a truck on Britain’s roads is thought to be around 7.5 years.

“There may be a ban on the sale of new diesel trucks with gross weights over 26 tonnes in 2040, but those bought in 2039 will still be running well into the 2040s,” he said, “getting near to the 2050 target, when we’re aiming to be net zero. It depends how quickly we transform our van and truck fleets from diesel to low carbon powertrains and that is going to take time. It’s not just about new vehicles – we should look at the existing fleet and how quickly it transforms.”

On the consultation to phase out non-zero emission HGVs by 2035 to 2040, McKinnon thinks the government’s aim is realistic but perhaps not ambitious enough.

“The expectation is that we will have electric, battery-powered trucks in the next few years with their manufacture and market adoption then ramping up,” he said, “I would have thought by the early 2030s, most newly purchased trucks would be low-or zero-carbon, depending, of course, on the rate at which carbon intensity of grid electricity drops in the meantime.”

A key unanswered question is: what will the main technology be that that will decarbonise the UK’s truck fleet? In the plan, the government has declared itself agnostic on which technology will become dominant. However, McKinnon said that the idea of a ‘winner’ is potentially misleading



### PROFESSOR ALAN MCKINNON

Professor Alan McKinnon has pursued an academic career specialising in transport and logistics. Between 1987 and 2012 he was based at Heriot-Watt University in Edinburgh where he established a research centre specialising in logistics and a master’s programme in logistics and supply chain management. In 2012 he moved to Hamburg to become Head of Logistics and Dean of Programmes in the Kuehne Logistics University, a private university set up in 2010 with funding from the Kuehne Foundation.

because we may see these technologies co-existing. "There's a lot of interest now in having a battery-powered truck with a hydrogen range extender," he said, "So a combination of these technologies could be appropriate for particular logistics operations and duty cycles."

He would like to have seen more discussion in the plan of the relative strengths and weaknesses over the various technological options for decarbonising long-haul trucking.

### GLARING OMISSIONS

McKinnon believes that the plan contains several glaring omissions. There is no reference, for example, of the need to get companies to collaborate and share vehicle capacity.

In 2017 the government commissioned a study to determine the positive impact freight industry collaboration can have on the decarbonisation of the sector and discussed the practice at length in its Freight Carbon Review. "Although this potentially offers large carbon savings it is not even mentioned in this new document."

Another omission is driver training, which McKinnon describes as probably the most cost-effective way of decarbonising freight transport.

"Driver training is not mentioned in there at all. Again the government commissioned a study on that. For many years its SAFED scheme supported with money and exhortation driver training in fuel efficiency. This is still potentially a major source of carbon and cost savings, but again it's not mentioned."

Lastly, the government's longer semi-trailer trial, which has been going on for almost a decade and has been shown to cut CO<sub>2</sub>, did not merit a mention in the plan.

"Relaxing lorry size and weight limits further would also help to cut emissions," McKinnon said, "In Scandinavia they've had longer, heavier vehicles now since the 1960s. Since 2013 we've seen the Netherlands, Germany, Denmark and Spain relaxing truck size and weight, and partly doing that to cut CO<sub>2</sub> emissions. We did a study for the UK government in 2008 on longer and heavier vehicles, but there is no discussion at all of the subject in this new document."

### SHIFTING FREIGHT TO RAIL

Currently rail is the only zero-emission way to transport goods long distance. What does McKinnon think of the government's ambition to remove all diesel-only trains from the network by 2040 and encourage more freight to shift to rail?

"Again, very welcome," he said, "Rail has this wonderful advantage in having a direct connection to zero carbon electricity. So if it's been decarbonised at the source, we can decarbonise electrically-hauled passenger and freight services."

He does make the point, however, that only ten per cent of rail freight movements in the UK are currently electrified.

"38% of the network is electrified but if you look at the end-to-end journeys for freight, the freight trains have to

leave the electrified network and so generally use diesel locomotives for that purpose."

However, he is optimistic that the government's commitment to continue rail electrification on a rolling basis will see non-electrified gaps in the rail freight network closed permitting a sharp increase in the percentage of freight that is hauled by electric locomotives.

"I think that is encouraging," he said, "and maybe some of the dates they mention for the ending of diesel rail haulage could be brought forward."

McKinnon is impatient for the government to publish firm targets for this shift to rail freight: "Why didn't they declare a target in what they are portraying as this major policy document on decarbonising transport?" he asked.

He also cautions that while setting a target is easy, achieving it is often very hard.

"You only have to look at the EU here, which in 2011 set an ambitious target for getting freight onto rail by 2030 and is nowhere near achieving it. A target alone is meaningless unless it comes with a credible plan for delivering it."

### LOOKING AHEAD

In the longer term, looking ahead to 2040, 2050 and beyond, McKinnon is hopeful that technology will help drive the UK's logistics sector down to the required level of emissions. What worries him is the short to medium term, the next ten to 15 years.

"There's very little in this document that explains how we're going to achieve the deep reductions in emissions that will be required over that time frame," he said, "It's the accumulation of emissions in the atmosphere that drives climate change. If we don't cut emissions in the very near future, we're going to overshoot our carbon budgets for the 1.5 degree temperature increase and then suffer the consequences."

These consequences have been clear for all to see in recent months with extreme weather events taking place in Germany and the west coast of America among other places.

This leads McKinnon to mull over a fundamental question: what does net zero actually mean?

"It's not absolute zero. Net zero means we will have to sequester large amounts of greenhouse gas already in the atmosphere. So the more we emit now, the more we will have to remove from the atmosphere probably from the 2030s onwards. We're not really sure how we do that. So we're taking a huge risk here with the future of our planet, and the lives of future generations.

"Given its long and successful track record in sustainable logistics and its role as host of the COP26 conference in November, the UK should be setting a good example to other countries on how to decarbonise freight transport," McKinnon concluded, "In that sense, the freight content of the *Transport decarbonisation plan* is a missed opportunity. It is too leisurely in its approach to the subject and fails to build on the knowledge and experience we've accumulated in the UK and elsewhere over many years." ■

# Tech and tyre support on the road to zero

**Environmentally focused leadership that supports the introduction of best practice measures can lead to impactful change for fleet operators.**

**As businesses explore their sustainable vehicle options, systems, products and processes to reduce fuel consumption remain vital to cost control and decarbonisation.**

## OIL PRICE RISE TO SPEED UP EV TRANSITION

The rise in oil prices over the past 12 months has led to diesel costs hitting their highest level in two years, while petrol has reached an eight-year high.

With some analysts predicting an oil deficit by the end of the year, leading to further price rises, we can expect the transition to EVs to accelerate.

## LCVS NOT FOR ALL FLEETS

The market for eLCVs is already gaining traction, but may not yet be suitable for all fleets, notably those regularly undertaking mileages beyond the typical eLCV range. Range limitations become an even greater concern for long-haul HGV operators.

## TECHNOLOGICAL INSIGHTS

Telematics data insights are playing an important role in helping shape fleet EV strategies, with solutions such as the WEBFLEET Fleet Electrification Planning Report helping identify the fossil fuel vehicles that could be replaced with EV alternatives, based on 'real world' mileages. Telematics solutions with advance EV functionality are also proving invaluable for ongoing EV management.

## SHRINKING YOUR FLEET'S CARBON FOOTPRINT

All the while, strong opportunities remain to reduce the fuel consumption and carbon footprint of fleets not yet able to make the EV transition.

The improved visibility over real-time vehicle movements offered by telematics software, for example, can improve daily workflow and cut wasted mileage.

## ROUTE TO SUSTAINABILITY

Intelligent and intuitive routing and scheduling can also deliver notable sustainability gains. Live traffic information, combined with wider telematics data, enables smarter navigation to drivers' destinations via the quickest, most fuel-efficient routes, helping them avoid congestion and minimise incidents of vehicle idling.

## DRIVING BEHAVIOURAL CHANGE

Furthermore, driver behaviour monitoring and feedback tools, such as WEBFLEET's OptiDrive 360, can help identify opportunities to improve fuel efficiency – and cut emissions in real time. Drivers can be empowered with predictive alerts via their sat nav devices, advising them, for example, when to take their foot off the accelerator on the approach to roundabouts or junctions, to help them achieve a more sustainable style of driving.

## TRAINING TRIALS AND TYRES

In fact, recent results from collaborative driver training trials with one client has led to projected savings of 14,000 lbs of CO<sub>2</sub> per annum, from just three fleet vehicles.

Fitting more energy efficient tyres, developed with sophisticated engineering to minimise rolling resistance, can also have a significant impact.

Bridgestone's Nano Pro-Tech TM compound, for instance, deployed in the Ecopia H002 and Duravis All Season van tyre, alongside design details such slim beads and buttresses, has been proven to reduce energy loss. Indeed, it can help save an average long-haul fleet more than £180,000 a year on fuel costs, while cutting annual CO<sub>2</sub> emissions by 546 tonnes.

As the industry innovates, fleets that respond in kind with financial and environmental prudence, will help secure a more sustainable transport future.



**Beverley Wise**

Sales Director, UK and Ireland, Webfleet Solutions

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# Destination decarbonisation: Bridgestone's sustainable journey

**Bridgestone has evolved at a rapid pace to keep up with an automotive industry that never stands still, with solutions for electric vehicle mobility never more relevant than now.**

**Bridgestone is committed to contributing to electrification and reducing CO<sub>2</sub> emissions both now and into the future – and have been flag bearers in electric vehicle solutions for many years.**



**Greg Ward**

Commercial Sales Director,  
Bridgestone North Europe  
region

## PRODUCT

In terms of product innovation, a number of commercial tyres have been unveiled to the market in recent months, with best-in-class performance and lower CO<sub>2</sub> emissions at the heart of their design, including the Ecopia H002, the Duravis R002 and the new U-AP 002, which is Bridgestone's quietest<sup>(1)</sup> bus and coach tyre ever made.

It comes with decreased rolling resistance and extended mileage<sup>(2)</sup> to reduce fuel consumption, CO<sub>2</sub> emissions and total cost of ownership<sup>(1)</sup> and has been developed to fulfil the ever-increasing requirements of an electric and hybrid bus fleet. It arrives on the back of a lengthy development project with Stagecoach, whose Manchester city centre fleet of green vehicles became the first in Europe to operate on the product.

## RETREAD

As a sustainable solution for the environment – and commercial fleets as a whole – Bridgestone's retread products and Bandag franchise network are also crucial to the business's overall commercial offering.

As Bridgestone moves towards a status of 'mobility solutions provider', retread represents a vital cog in the overall company wheel, with a move towards the lowest total cost of ownership of product, combined with an increasing awareness of the need for a more sustainable and circular economy.

Retread Business Development Manager Terry Salter said: "We continue to focus on retread, not least because a retreaded tyre uses one third of the materials of a standard tyre, thus being affected less by raw material price increases. It is a cost effective, sustainable alternative and it arrives from within the UK."

## LOOKING AHEAD

Looking to 2030, Bridgestone will move ahead with the development of this business and seek to build a unique sustainable business model that provides benefits for society and customers as well as for Bridgestone. This business model will be designed to contribute to the creation of a circular economy and CO<sub>2</sub> emissions reductions across the entire value chain, which encompasses manufacturing, use by customers, and recycling.

To accelerate its contribution toward a carbon neutral society, Bridgestone has clarified its long-term environmental target of achieving a carbon neutral state by 2050 and beyond along with its target of reducing its total CO<sub>2</sub> emissions by 50% from 2011's level by 2030. These targets are aimed at facilitating further reductions to CO<sub>2</sub> emissions and more aggressive contributions to the realisation of a carbon neutral society.

★ TYRE TALK  
[www.bridgestone.co.uk](http://www.bridgestone.co.uk)



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# Fuel for thought



**Martin Flach**  
Automotive Consultant

Two years ago, I wrote a piece for the *Logistics Magazine Road to Zero* supplement about the alternatives available to operators wanting to run cleaner vehicles. Since then, we have had numerous government announcements all promising that by 2050 the UK will be carbon net zero. Recently, we have seen the *Transport Decarbonisation Plan* and the consultation to ban diesel engines from LGVs.

Between now and 2050 most fleets will have gone through five or six complete replacement cycles so vehicles purchased over the next few years will be long gone. The question for most operators will be: how do I plan for the future?

One of my pet hates is conflating emissions with their impact. To be clear, for vehicles, there are two issues to resolve:

- Air quality in the urban environment which is mainly due to NOx and Particulates;
- Global warming and climate change which is where carbon dioxide emissions are the issue.

Distribution vehicles running in city centres need to become zero tailpipe emissions whilst vehicles doing long distance on motorways or predominantly operating in rural areas need to be working towards net zero carbon. This implies that the one-size fits all approach we have enjoyed for many years with diesel cannot be the way forward.

So, what can a responsible fleet manager do in the short to medium term?

## LCV SECTOR

If you are running a distribution operation in the urban environment, the picture has improved significantly over the last two years with electric LCVs available from most OEMs. Prices are still high, government subsidy is still low and the business case for using them is still frequently negative. The issue is that distribution vehicles do not use enough fuel for the operating costs to balance out the additional capital costs. In London, the Congestion Charge exemption is a great help and increasingly there will be zero emission zones where an EV is the only effective option.

## MIDDLEWEIGHT SEGMENT

The OEMs seem slow off the mark with medium truck EVs, with only the Fuso eCanter currently available. Products are available from Electra and Tevva based on glider chassis from OEMs and we can expect to see products from the OEMs coming to market soon. There are also two new entrants to the market with Arrival and Volta both promising much to come.

## HEAVY TRUCK SECTOR

For heavy trucks the picture is a little better with Renault/Volvo, DAF and Mercedes having products available and MAN, Scania and Iveco/Nikola being available soon. These all benefit from the Gross Vehicle Weight (GVW) derogation that enables up to one tonne additional GVW at 18 and 26 tonnes. The economics of these vehicles are difficult to justify with high capital cost and government subsidy totally inadequate for this sector of the market.

Those operators running longer distances will find the challenges greater. There is a lot of hype but, as yet, very few products available to purchase.

## NATURAL GAS

The only "here and now" technology that can replace diesel is natural gas. Despite products being available from Iveco, Scania and Volvo that are proving to be not only better for the environment but also better for the bottom line, take up is still very modest. This is partly due to the limited number of gas filling stations leading to nervousness for fleets but more due to the inherent conservatism of the industry in general. Nobody has been fired for buying diesel vehicles, so why change and take the risk?

## BIOFUELS

Both diesel and natural gas vehicles can reduce the carbon emissions by using biofuels. Biomethane is widely available from most suppliers. For biodiesel, Euro VI engines generally require second generation fuels such as Hydrogenated Vegetable Oil (HVO) or gas-to-liquids (GTL) fuels where availability is limited and price can be an issue.

In the *Transport Decarbonisation Plan*, DfT is backing electric and hydrogen for freight transport. Today there is no mainstream product available to purchase with either of these technologies.

## BATTERY ELECTRIC

Manufacturers of battery electric long-distance trucks will have to balance the battery size with the cost of the vehicle, the loss of payload and the range/frequency/duration of recharging. For operators running 4x2s with shift mileage of under 300 km, this may be possible but for 6x2s running 500km per shift, I struggle to see how this will be achieved with batteries alone.

## ELECTRIC ROAD SYSTEM

The answer could be the electric road system, where just like trolley buses (that I am old enough to remember on the streets of London), power is obtained from an overhead catenary wire using a pantograph on the truck. Trials are underway in Germany and Sweden currently and DfT wants to run a trial in the UK starting 2022/23. The challenge with this system is that the cost for infrastructure is high and consequently we would be unlikely to see any more than the major motorway network being covered. This would be fine for operators whose routes are largely on the catenary network where small batteries are sufficient for any running outside it but for those operators running in more rural areas it will do little.

## MARTIN FLACH

An electrical and electronic engineering graduate, Martin Flach has held a number of positions within the commercial vehicle industry. His career began with Ford Motor Company (Truck Division). Following the merger of Iveco and Ford (Truck Division) he joined Iveco Ford Truck in 1986 and remained with Iveco after the formation of Iveco Ltd in 2003.

Following more than 40 years in the commercial vehicle business, Flach retired from his role as Alternative Fuels Director Iveco a few years ago and is now working as a consultant to like-minded companies in the alternative fuels sector.

## HYDROGEN

I am sure some will say that hydrogen will be the answer. Other than some limited work on internal combustion hydrogen engines, most will consider that hydrogen is used with a fuel cell to generate electrical energy. The vehicle is therefore a battery electric vehicle (BEV) with a small battery and a hydrogen range extender. Hydrogen has the advantages of rapid refuelling and being light weight, but the volume of the storage tanks makes a 6x2 artic impossible under current masses and dimensions regulations. Even if these are changed to permit longer units, the impact on depots and parking places should not be underestimated.

Hydrogen is also a very inefficient energy source. Various studies have shown that from 100% renewable electrical energy, a hydrogen vehicle has only circa 25% available at the wheels due to the losses incurred in the various steps. This compares with circa 70% for a BEV and circa 75% for the Electric Road System (ERS). Until the UK has a huge surplus of clean electrical energy, using what we have to produce hydrogen makes little sense.

## THE ROAD AHEAD

Returning to my original question, I am optimistic that battery electric solutions are available for the distribution market and we just need improvements to the commercial viability. For long distance, we still have a lack of viable solutions and for now operators can only look to biofuels to improve their carbon footprint. I hope in two years' time, I can be more positive. ■

## FUELLING ADVICE

★ More from martin.  
flach@btinternet.  
com



# The importance of a multimodal approach

Modal shift is vital for decarbonising logistics. While road movements will always be required, modal shift can play an important role when considering net zero targets.



**Alex Veitch**

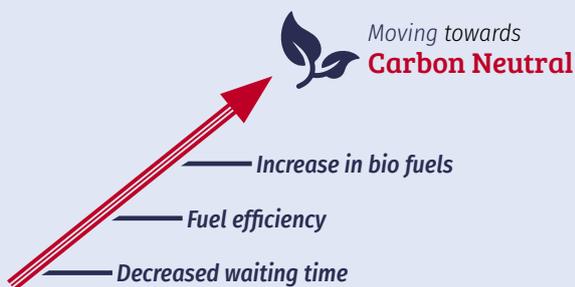
General Manager – Public Policy, Logistics UK



## AIR

Air freight currently accounts for 40% of UK imports and exports by value and is vital for the UK economy. Air freight will always be needed for time-sensitive express deliveries for higher-value products such as car parts and pharmaceuticals.

Airlines are continuously upgrading their fleets. New planes are much more fuel-efficient and have quieter engines. The use of biofuels or jet fuel created from energy from waste is on the increase and ground operations are moving quickly towards becoming carbon neutral. The industry is constantly addressing environmental concerns and using innovative solutions to decrease waiting times for planes through digital platforms, making operations more efficient. That said, more support for research and development in air cargo is vital. Air emissions at a global level are governed through the UN agency for aviation, the International Civil Aviation Organization (ICAO), which has developed the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) to achieve its aim of carbon neutral growth.



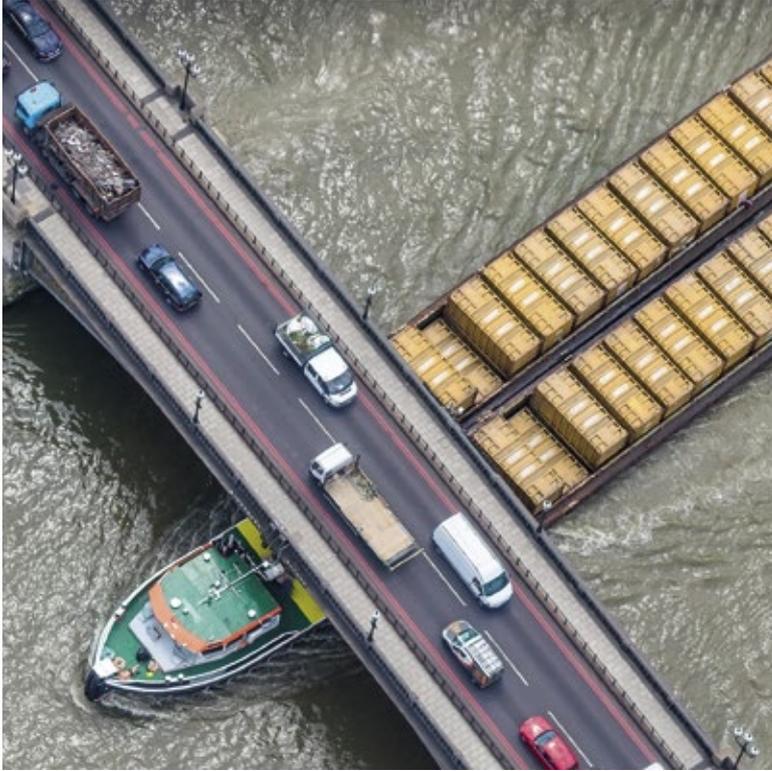
### MULTIMODAL MATTERS

- ★ [www.logistics.org.uk/air](http://www.logistics.org.uk/air)
- ★ [www.logistics.org.uk/rail](http://www.logistics.org.uk/rail)
- ★ [www.logistics.org.uk/water](http://www.logistics.org.uk/water)

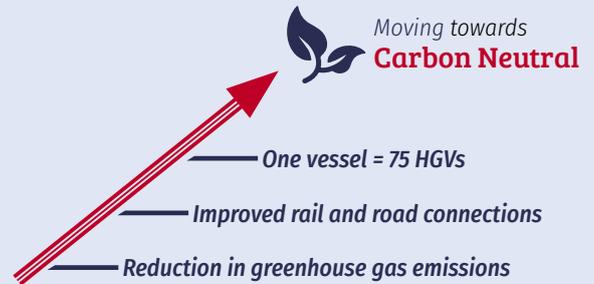




## WATER

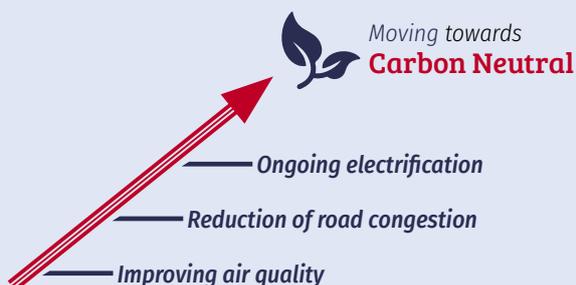


Ninety per cent of goods coming into the UK arrive by sea and 15% of domestic freight is moved by water. A commercial water vessel can carry up to 1,500 tonnes of goods – 75 HGVs worth. Port connectivity is key when considering decarbonisation. The International Maritime Organization (IMO) (the UN agency for maritime) has adopted mandatory measures to reduce emissions of greenhouse gases from international shipping, under IMO's pollution prevention treaty (MARPOL); these are the Energy Efficiency Design Index (EEDI) which is mandatory for new ships, and the Ship Energy Efficiency Management Plan (SEEMP). With excellent maritime facilities nationwide, ensuring ports and wharves have good road and rail connections can support environmental goals and regional development. With more effective government support to promote modal shift, and policy frameworks that protect and expand our inland waterway freight infrastructure, these water-based modes could grow even further and reduce pressure on our congested roads, working towards decarbonising the logistics sector.



## RAIL

Rail freight contributes to the UK economy in a safe, efficient and environmentally friendly way. Alleviating congestion on our roads, rail takes 2.9 million lorry journeys off the road each year, an average of 8,000 per day. One freight train can take up to 76 HGVs worth of goods off the road, reducing emissions and congestion and improving air quality across the UK. One freight train can transport enough materials to build 30 houses, making more efficient development possible. Electrification of the rail network is ongoing and additional research is going into alternative technologies for heavy freight trains, such as hydrogen. Access to the rail network is important for the rail freight industry as it will enable more deliveries to take place by rail and improve efficiency overall.



# Does electric hold the key to decarbonising van fleets?

The 2030 phase-out date for the sale of new petrol and diesel vans is now less than nine years away, with a 2035 phase-out date for hybrids. The Government Green Paper on regulatory changes needed to achieve these dates, and how a hybrid should be defined post-2030, has now been published. For van fleets, focus is now on preparing for this transition. Logistics UK members are working hard to reduce their emissions as quickly as possible – for some, a switch to electric vans is a viable solution right now but for others, it will only be possible in years to come. In this article, Logistics UK examines some opportunities and challenges for fleets, and what we are doing to help.



**Denise Beedell**  
Public Policy Manager,  
Logistics UK

## THE CRUCIAL ROLE OF VANS

The use of vans across logistics is diverse, from van fleets of thousands to sole traders with a single vehicle all relying on them for business purposes. The COVID-19 pandemic highlighted the crucial role logistics plays up and down the country, including the varied and important role vans play in performing essential services and deliveries. This diversity is one of the challenges to decarbonisation, however, as specialist operations often need to have a power supply on board, which can compromise the range and payload of battery electric vehicles, or the ability to tow equipment, which very few electric vans can do.

The frequency with which commercial vans are replaced also varies considerably with an average replacement cycle being five years for delivery and collection vehicles, compared with up to seven or more years for utilities and servicing. Small businesses are more likely to opt for second-hand vehicles, but the market for second-hand electric vans, whilst growing, is still very immature, resulting

in fewer available vehicles and higher prices. This means many small business owners are left with little option but to delay the move to electric and keep current petrol or diesel vans for significantly longer.

## IS ELECTRIC THE WAY FORWARD FOR VANS?

Each operator will of course know best the usage patterns of their vehicles and this will be crucial in determining what technology may be suitable. When thinking about battery electric, the market is developing rapidly and nearly every major OEM has at least one model. At the recent ITT Hub event, there was a vast display of vehicles being developed and coming to market, highlighting there will be much more choice for operators in the coming years.

One of the current drawbacks for operators is that most vans that are available tend to be small to medium in size, rather than at the heaviest end, which will be a significant constraint for those looking for a larger payload. Disappointingly, a recent Logistics UK survey found only

11% of respondents were satisfied or very satisfied with the number of electric vans currently on the market.

## HIGHER PURCHASE PRICES

New battery electric vans come at a cost premium, which we know is a substantial hurdle for many operators. However, helpful online calculators, like that from LoCity, can help operators look at the total ownership cost and whether there are savings over the life of the vehicle. Case studies on the newly launched DFT freight portal demonstrate the cost benefits that some fleets have found through transitioning to battery electric.

The government also offers a Plug-in Van Grant, to help overcome higher purchase costs. Logistics UK recently expressed its disappointment that the government reduced these grants; with the van market still not fully developed this is not the time to cut back on incentives to encourage commercial vehicle electrification. Eligible vans are those with CO<sub>2</sub> emissions that are below 50g/km and can travel at least 60 miles with no emissions at all. For those vans up to 2,500 kilograms (kg) gross vehicle weight, the grant will pay for 35% of the purchase, up to a maximum of £3,000. For larger vans between 2,500kg and 3,500kg gross vehicle weight, the grant will pay for 35% of the purchase price, up to a maximum of £6,000. A list of vehicles currently eligible is available at: [www.gov.uk/plug-in-car-van-grants](http://www.gov.uk/plug-in-car-van-grants).

Logistics UK is calling on the government to provide long-term certainty around the future of the electric van grant, to allow for long-term business planning and to ensure it remains in place until the market for ultra-low and zero emission vans is fully mature.

## THE FUTURE OF RECHARGING INFRASTRUCTURE

Logistics UK is aware that infrastructure remains one of the top concerns for operators when thinking about going electric. Infrastructure is not only about the chargepoint

sockets but includes the electricity cables and supply, the type of meters used and even the payment mechanisms.

## DEPOT CHARGING

For many fleets, depot charging will be a straightforward solution as vans will be able to charge when not in use, particularly overnight. But a significant hurdle is the cost of a power upgrade, should it be needed. Logistics UK has been campaigning for a fair and equitable way of funding grid supply reinforcement. Currently, if an upgrade is necessary, the fleet operator can receive a pretty hefty bill in addition to the costs of upgrading the vehicles and installing chargepoint infrastructure. We think this is unfair and we are engaging with Ofgem as they consult on proposals for funding the necessary grid upgrades as we move to Net Zero 2050.

## PUBLIC CHARGING

But not all vans return to a depot, and even for those that do, there may be occasions when they have to use public chargepoints to top up a low battery. It is common practice in the service sectors for van drivers take their vehicles home at night, and a significant number of drivers do not have access to off-street parking, so will need to rely on on-street charge points. Up until now, the focus for public recharging infrastructure has been on cars resulting in many chargepoint spaces that cannot be used by larger vans because the space is too small, the charging cables too short or there is limited headroom. Logistics UK has been urging the government and local authorities to consider vans separately in their plans so that commercial vehicles can be confident about accessing public chargepoints to fulfil business needs. ■

### WHERE CAN I GET HELP AND ADVICE?

- ★ [www.logistics.org.uk/environment](http://www.logistics.org.uk/environment)
- ★ [locity.org.uk/fleet-advice/](http://locity.org.uk/fleet-advice/)
- ★ [thefreightportal.org](http://thefreightportal.org)
- ★ [www.gov.uk/government/publications/connecting-electric-vehicle-chargepoints-to-the-electricity-network](http://www.gov.uk/government/publications/connecting-electric-vehicle-chargepoints-to-the-electricity-network)

**Department for Business, Energy & Industrial Strategy**

Guidance

# Connecting electric vehicle chargepoints to the electricity network

Published 16 June 2021

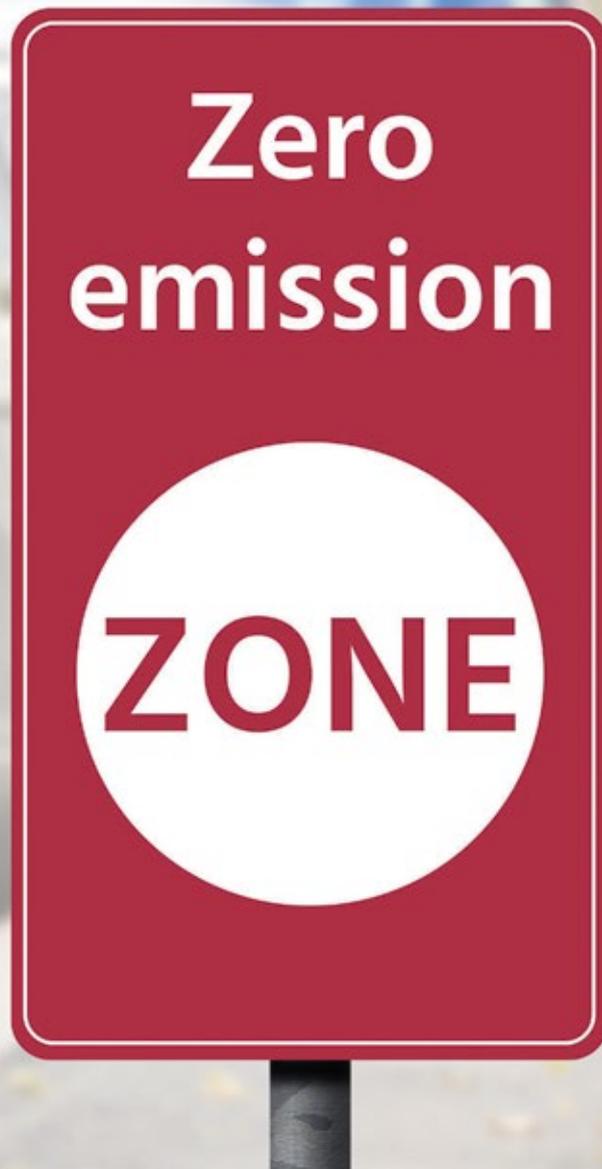
**Contents**

- Getting started
- Installation
- Prices and charging
- Services and flexibility
- Useful links

If you are considering switching your fleet to electric vehicles (EVs), or providing EV charging facilities at your business, you will need to install chargepoints and connect them to the electricity network.

This guidance takes you through how to connect to the electricity network, sets out the process and includes links to useful extra resources. It contains links to explanations of terms for clarity.

# Tackling air pollution



**Natalie Chapman**

Natalie Chapman, Head of Policy – South, Logistics UK

## SPEEDING UP URBAN FLEET REPLACEMENT

The introduction of CAZs has the effect of speeding up the fleet replacement cycle of operators that make frequent deliveries to the city centres where the zones are being implemented. Euro VI HGVs already made up more than half of the UK fleet by the end of 2019, and it is predicted that by the end of this year, Euro VI vehicles will account for more than two out of three HGVs (70%), and that number is predicted to rise to 78% by the end of 2022.

**Over the coming years, a number of UK cities will be implementing Clean Air Zones (CAZs) and Low Emission Zones (LEZs). Logistics UK's position is to ensure that these schemes are introduced in a consistent way to avoid a patchwork of different regulations and that support is provided for those who have the least means to replace vehicles, such as small businesses and operators of high-value, low mileage specialist vehicles.**

## ENVIRONMENTAL IMPROVEMENTS WILL SLOW

If these predictions, which use historical trends for both the total number of licensed vehicles and Euro VI vehicles, are proved correct, the environmental improvements driven by CAZs will begin to slow as the fleet moves to lower-emission vehicles. This would suggest that local authorities may need to consider additional, and potentially more punitive policies to continue driving emissions reductions.

## MITIGATION MEASURES

For that reason, Logistics UK is calling for a raft of mitigation measures, such as tackling congestion by reviewing road layouts and traffic signals, improved traffic management, retiming deliveries outside of peak hours by relaxing delivery curfews, and supporting businesses in their switch from fossil-fuelled vehicles through a comprehensive and equitable charging and refuelling network.

The first two CAZs – in Bath and Birmingham – have already been implemented and are now in operation, while many more cities are planning to implement their zones in the coming months and years.

## GOVERNMENT FRAMEWORK

The Department for Environment, Food and Rural Affairs (Defra) has set up a framework for CAZs in England:

<b>Class A</b>	Buses, coaches, taxis and PHVs
<b>Class B</b>	Buses, coaches, taxis, PHVs and HGVs
<b>Class C</b>	Buses, coaches, taxis, PHVs, HGVs and vans
<b>Class D</b>	Buses, coaches, taxis, PHVs, HGVs, vans and cars

## CAPITAL PLANS

Transport for London tightened up the London-wide LEZ to Euro VI for HGVs in March 2021 and in October 2021 the Central London Ultra Low Emission Zone (ULEZ) will be expanded out to (but not including) the North and South Circulars for all vehicles on 25 October 2021. Portsmouth City Council will introduce its CAZ in November 2021 which include HGVs, but not vans.

## INDICATIVE TIMESCALES

Other cities have given indicative timescales to introduce their CAZs but are yet to be confirmed by government. These include Bradford which is proposing a city-centre zone including HGVs and vans in January 2022; Manchester which is planning a large city-wide scheme to include HGVs from May 2022, but offering a further year for vans to be included; and Bristol which is developing proposals for a city-centre class D zone to not just HGVs and vans but private cars too. Bristol's scheme has been delayed from October 2021 to summer 2022 to allow for more financial support to help citizens and businesses upgrade their vehicles. Meanwhile, Sheffield and Newcastle are both developing plans for class C zones to include HGVs and vans.

In England, non-compliant vehicles can still access the zones by paying a daily charge. The charges vary from £8 to £12.50 for vans and cars to £50 to £100 for HGVs. Fleets can check the compliance status of vehicles for Bath, Birmingham and Portsmouth on the government's checking service (<https://www.gov.uk/clean-air-zones>). To check the status or pay charges for a number of vehicles, fleet operators will need to set up an account which they can do via the same link.

## SINGLE CHARGE PORTAL FOR ENGLAND

Through our continuing engagement with the government's Joint Air Quality Unit (JAQU), Logistics UK has campaigned for a single charging portal for all CAZs in England, to avoid the need for operators to register their fleet with each city individually. However, the system does not have the autopay functionality that businesses will be familiar with for existing schemes such as London's ULEZ or the Dartford Crossing charge (Dart Charge). Instead, fleet operators will need to manually report each non-compliant vehicle's entry into a CAZ to avoid being fined. Logistics UK has voiced concerns to JAQU and to the Defra Minister responsible for CAZs, Rebecca Pow MP, that this lack of autopay functionality will result in increased bureaucracy for industry. We continue to campaign for a single, integrated payment

portal, with an autopay facility, for all government charges, so an operator need only register a vehicle once for all charging schemes.

## SCOTLAND TAKES A DIFFERENT APPROACH

Whilst non-compliant vehicles in England can pay a daily charge to access CAZs, the Scottish Government has taken a different approach with its LEZs. Diesel vehicles which do not meet the Euro VI/6 standard and pre-Euro 4 petrol vehicles are banned from accessing Scottish LEZs. However, the Scottish framework requires cities to implement grace periods to phase compliance which have to last at least a year from the scheme's introduction. Glasgow, Edinburgh, Dundee and Aberdeen are all developing schemes. Glasgow already has an LEZ in place for local service buses and, subject to consultation, is proposing to introduce enforcement against all other non-compliant vehicles from June 2023. Edinburgh, Dundee and Aberdeen are all developing plans for May 2022, with enforcement not starting until two years later. Edinburgh had proposed two schemes – a city centre zone applying to all vehicles and a large city-wide zone affecting commercial vehicles. It has since dropped the larger scheme and instead is just developing plans for the more focussed city-centre zone.

The Scottish Government has also taken a different approach to Penalty Charge Notices (PCNs). Operators of non-compliant vehicles detected in a Scottish LEZ will face an initial PCN charge of £60, reduced by 50% if it is paid within 14 days; a surcharge will apply where a subsequent breach of the rules is detected within 90 days. PCNs will be capped at £480 for cars and light goods vehicles and £960 for buses and HGVs. If the driver of the vehicle doesn't breach the rules within the 90 days, the surcharge rate is reset to the initial charge of £60.

## ZERO EMISSION ZONES

Some cities such as Oxford are seeking to go beyond Euro VI/6 and set up Zero Emission Zones (ZEV). Logistics UK believes that it is simply too soon to introduce such schemes and instead the focus should be on supporting and enabling the uptake of zero-tailpipe emission vehicles, for example, by ensuring charging and refuelling infrastructure is in place. Oxford's ZEV pilot will charge operators using vehicles that which are not zero-emission from key city centre streets during the day, with the level of the charge dependent on how polluting the vehicle is. The ZEV pilot was to be introduced in August 2021 but has been delayed due to technical issues. A larger zone covering most of Oxford city centre is proposed, subject to further public consultation, for 2022.

## FAST-CHANGING PICTURE

The implementation plans for CAZs in the UK are a fast-changing picture. While some zones face delays, or long consultation periods, others are nearing a decision point. To capture this changing landscape, each month Logistics UK updates its members-only CAZ briefing document ([www.logistics.org.uk/cazbriefingnote](http://www.logistics.org.uk/cazbriefingnote)), which covers both its position on urban air quality restrictions and up-to-date information on all the zones in development. ■

## CLEARING THE AIR

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