Climate Change Committee call for evidence: Building a zero-carbon economy
FTA submission

Summary of FTA View

- FTA appreciates that industry will need to achieve zero emissions in the future. However, all of the technology needed to achieve this is not available today. It is important to recognise all the efforts industry is currently making to reduce their emissions
- FTA's members believe that lighter vehicles (vans and light HGVs) will move straight to electrification
- Heavier vehicles will require an intermediate stage, probably gas-based, before progressing to electrification in the further future
- Members do not see a major role for hydrogen in the UK HGV market
- Investment in refuelling and recharging infrastructure and capacity of the grid is vital to support the necessary change to the future fleet
- In the shorter-term, congestion reduction measures would ensure the free flow of traffic and reduce fuel consumption and emissions
- Promoting fuel efficient schemes such as the Logistics Emissions Reduction Scheme (LERS) and Eco Stars will help operators to reduce their emissions

About FTA

The Freight Transport Association (FTA) is one of Britain's largest trade associations, and uniquely provides a voice for the entirety of the UK's logistics sector. Its role, on behalf of over 16,000 members, is to enhance the safety, efficiency and sustainability of freight movement across the supply chain, regardless of transport mode. FTA members operate over 200,000 goods vehicles - almost half the UK fleet - and approximately one million liveried vans. In addition, they consign over 90 per cent of the freight moved by rail and over 70 per cent of sea and air freight.

Role of Logistics

Logistics is vital to the UK. Everything that business and people use or consume is or was a piece of freight. Every day offices, factories, workshops, work sites, retail outlets, hospitals and schools all need to be kept supplied in order to function.

UK society requires around 2.5 billion tonnes of goods to be delivered each year – that is about seven million tonnes of goods every day of the year. Without these, the UK would not function. It is carried out daily by a vast array of people and companies, with huge efficiency and accuracy. So much so, that it is simply taken for granted most of the time. It is only when the supply chain stops (such as the ash cloud closure of air cargo deliveries in 2010, the Cross-channel disruption in 2015, or the 'Beast from the East' in March 2018) that it is noticed).

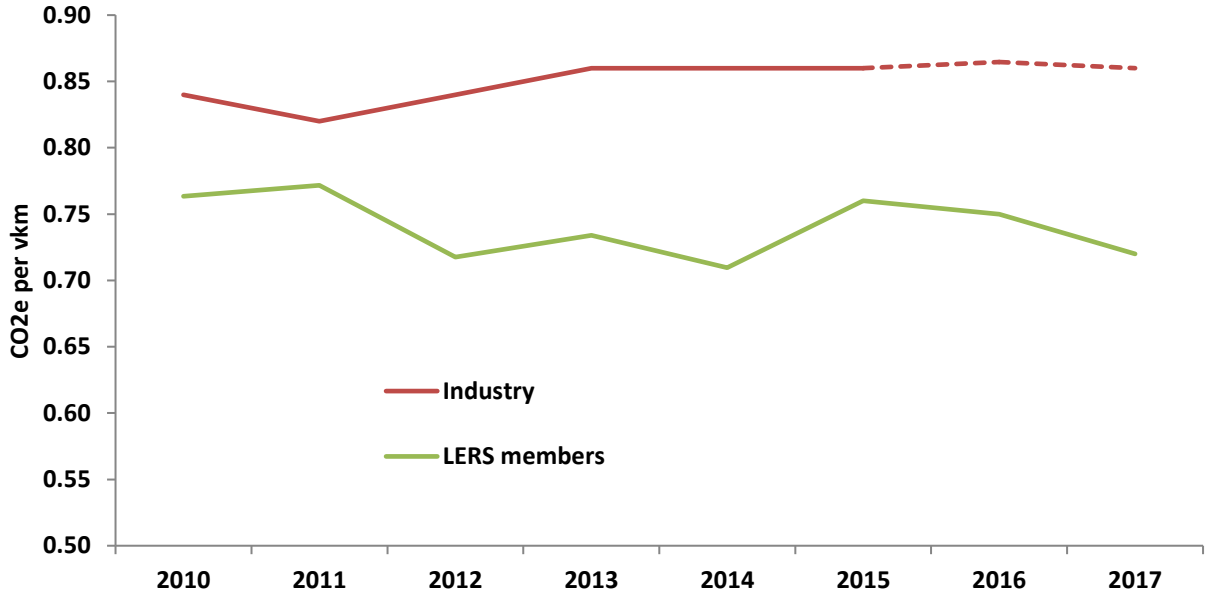
Logistics and Decarbonisation

Transport is one of the most difficult sectors to decarbonise, due to the varied nature of its operation and the fact that it is always on the move. Within transport, the larger the vehicle, the more problematic decarbonisation becomes, as heavier vehicles require more energy

load to move, which makes many alternative power sources more difficult to use. However, heavier freight vehicles are vital to reducing emissions as they are the most energy and road space efficient way of moving freight on a per tonne basis.

Reducing carbon emissions is a priority for our members and FTA is committed to helping them to make their operations greener. The Association manages the Logistics Emissions Reduction Scheme (LERS) which is an industry led, voluntary scheme focusing on recording, reporting and reducing emissions from freight operations. The scheme currently represents 133 members, accounting for 87,929 commercial vehicles (heavy goods vehicles and vans) and represents a broad range of sectors and vehicle fleet sizes. In 2017, members achieved an impressive four per cent reduction in their CO_2 emissions, reducing their average kg of CO_2e per vehicle km to 0.72, down from 0.75 in 2016 and 0.76 in 2015. Whilst the 2016 and 2017 figures for industry as a whole are not yet available, it is clear that LERS member average emissions are close to 13 per cent lower per vehicle km than the industry average.

Figure 5: Emissions per Vkm for Industry vs. LERS members



Scheme members have utilised multiple emission reduction measures to ensure they are operating as efficiently as possible;

- Investing in fuel efficient driving training courses for their drivers,
- Monitoring their drivers' behaviours via telematics
- Appointing an efficiency champion to optimise route planning
- Tyre management processes
- Aerodynamics such as boat tails, side skirts and body deflectors to reduce vehicle drag and improve performance
- Members are continuously trialling alternatively fuelled vehicles and technologies
- Implementing modal shift where possible in their operations, rail and water freight deliver significant carbon savings

FTA Response – GHG reduction options in Logistics

The Association appreciates the importance of moving across to cleaner fuels with the long-term ambition of achieving zero emissions. However, it is important to recognise the limitations of current technology and the efforts industry is making to ensure their operations are as energy efficient as possible.

Short term - managing road congestion
The single most important measure when reducing emissions from transport is to reduce congestion, ensuring all available road space is utilised to maximum capacity and enabling the free flow of traffic. This can be improved by reviewing one-way systems, synchronising traffic lights, and ensuring efficient use of road space between all road users. Stop-start traffic has a significant impact on fuel consumption, emissions and air quality. According to information supplied to FTA by vehicle manufacturers, if you compare an HGV travelling at 30mph that stops three times a mile, then gets back up to speed, and one that just cruises at 30mph, you see a tripling of emissions. Therefore, any reduction in congestion will have very significant positive effects on emissions - both air quality and carbon.

It is vital to judge a vehicle by what it is doing. Whilst an electric van is capable of zero-emissions, it is not always the most efficient use of road space. A medium sized HGV can carry as much as ten vans and the larger heavy vehicles can carry the equivalent of 25 vans. If HGVs were banned in favour of vans or forced to distribute their loads onto multiple electric vans, congestion will be significantly increased, and so will emissions and cost.

FTA supports investment in cycling and walking infrastructure and public transport to improve safety for vulnerable road users and to encourage more people to switch from private cars to bikes or buses. There is also the potential for improved infrastructure to increase the use of cycles for deliveries, though this will only ever be a somewhat niche activity, not a replacement for motor vehicles en masse.

However, it is essential that when designing new infrastructure, a sensible balance is achieved between the needs of different road users so that best use is made of limited road space. FTA's areas of concern are two-fold: maintaining access to the kerbside for deliveries and servicing activity, and potential increases in journey times due to reduction in road capacity.

Short term - local air quality and carbon savings on the road
Alternative fuels will yield significant emissions savings, it is not currently a viable option for all vehicles and there are still savings to be achieved through fuel efficiency. With HGVs, Euro VI/6 is proving to significantly reduce NO_x and PM emissions by 80 to 90 per cent compared to Euro V, and industry is on track to upgrade their fleets to this standard. This is due to HGVs being subject to Real Driving Emissions (RDE) testing which has delivered in reality much better emissions performance than seen with cars. This testing cycle is now being introduced for cars and vans.

Fuel efficient driving and the fitment of aerodynamic technologies can also further improve a vehicles diesel efficiency and schemes like the Logistics Emissions Reduction Scheme (LERS) and Eco Stars both aim to help fleet operators improve their efficiency, reduce fuel consumption and emissions. By promoting these schemes, more operators will receive guidance and support on how to make their operations greener.

Medium term - support mode shift
Transporting goods by rail and water significantly reduces HGV road miles. Every freight train able to carry the same amount as up to 60 HGVs, and on average a gallon of fuel will move a tonne of goods 246 miles on the railway compared to 88 miles by road. Rail delivers substantial savings in fossil fuel, carbon emissions and is also beneficial to local air quality and road congestion. Massive efficiency can also be achieved through use of waterways where possible. However, it is important to note that the vast majority of urban freight is carried by road due to its 'to the door' nature.

FTA is supportive of any developments to make rail a more cost-effective option to enable more freight to shift from road to rail. However, these must be realistic. Rail freight is more

efficient over long distances, but in urban areas, which tend to be congested, rail freight has to compete for access with passenger trains.

Longer term - alternative power for commercial road vehicles
Moving beyond diesel is the main vital step for reducing or eliminating commercial vehicle emissions.

FTA's members believe that lighter vehicles (vans and light HGVs) will move straight to electrification. At first this may incorporate range extending technology.

Heavier vehicles will require an intermediate stage, probably gas-based, before progressing to electrification in the further future. Again, electrification will probably involve range extending power sources at the first stage.

We would note that FTA members do not see a major role for hydrogen in the UK HGV market. The energy required to generate sufficient hydrogen to power the fleet would seem to make it an unrealistic option. The Centre for Sustainable Road Freight has much more information on this point.

The Government is currently running the Gas Truck Trial to establish the best performance understanding of the latest range of gas-powered HGVs to see if they perform any better than earlier models. The test is due to conclude in March 2019, depending on the results, it could confirm if gas will provide an alternative to diesel until electric technology has been developed. A national network of refuelling infrastructure would need to be strategically positioned in order to support the use of gas trucks.

Policy Options

To support these developments, FTA would propose the following measures for consideration:

Priority access to infrastructure for Ultra Low Emission Vehicles
To incentivise the uptake and use of alternatively fuelled Ultra Low Emission Vehicles, what is currently bus-only infrastructure and signalling could be opened up cleaner HGVs. By offering the use of bus lanes outside of commuting peak hours for example, would further reduce the stop-start driving caused by congestion and could encourage more operators to use cleaner delivery vehicles within city centres.

Tax incentives
Currently members report that the purchase price of electric vans ranges between six to ten times more expensive than a standard diesel-engined vehicle. Whilst costs are improving, there is still work to be done. Capital tax reliefs should be developed to enable investment to be made, and thus production levels increased, with consequential cost reductions.

Planning support
The absence of supporting infrastructure is also key barrier limiting the uptake of alternatively fuelled vehicles. So, support for the installation of electric vehicle charging facilities (for smaller commercial vehicles) and gas fuelling (for heavier) would be welcome. Consideration must also be given to van drivers who take their vehicles home and have no access to off road parking. Refuelling infrastructure would need to be strategically placed in order for it to be effective and would be dependent on the types of vehicle servicing an area.

Allowing more deliveries to take place at night will remove some delivery vehicles off the roads during peak hours. The key determinant for freight is service, and is dictated by the

customers' requirements, so whilst this may not be a solution for all parts of the supply chain, allowing some flexibility will be beneficial to many operations.

Electricity supply for electrification

Many operators are looking to utilise cleaner vehicles in their operations. However, as mentioned above, in response to question nine, the lack of supporting infrastructure is still one of the primary barriers to the uptake of these vehicles. FTA members who have invested in electric vans, have in many cases, also invested in electric charge points at their depots to support these vehicles. But some have found that their local electricity substation does not have sufficient power for simultaneous vehicle charging. They are then faced with the additional cost of funding upgrades to the electricity grid. Individual companies are unwilling and unable to pay to upgrade infrastructure that they do not own and cannot take with them if they relocate.

Supply must be provided by the UK's power network to the locations it is needed, with payment on a use basis, rather than as upfront investment.

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