

**Environment, Climate Change and Land Reform Committee**

**Climate Change (Emissions Reduction Targets) (Scotland) Bill**

**SUBMISSION FROM FREIGHT TRANSPORT ASSOCIATION**

Logistics operators and those businesses in Scotland that operate and rely on commercial goods vehicles are an integral part of the economy who are involved in every part of the national supply chain.

From transporting raw materials for processing, last mile deliveries in our urban centres to parcel deliveries in rural Scotland, the economy and the general public depend on the efficient and sustainable movement of goods.

Because the transport industry is always evolving and looking at ways to minimise cost, reducing carbon emissions is a priority for our members.

Over 30% of the total operating costs for a 44 Ton artic lorry is fuel therefore it is obvious that as an industry, a key priority is to reduce our reliance on diesel and make the change to sustainable fuels.

The current problem for our industry in achieving net zero emissions is that there are no electric trucks in the market

- Despite promotional test models being publicly announced, electric is, in reality, not currently a viable option for heavier trucks. However, by the 2040/50 timeframe (or earlier if technology allows) this may no longer be the case.
- Prior to that, members are developing two main options: One is electric hybrid, with the vehicle capable of running in zero-emission mode for a set number of miles, enough to compete journeys in urban centres, thus exponentially helping on air quality issues. The other is gas. Depending on results from the DfT vehicle tests this year, it is hoped natural gas (both CNG and LNG) will provide suitable options through the 2020s and beyond.
- Alternatively fuelled commercial vehicles are still a niche area and are not a part of the main supply chain at present – for example gas powered vehicles currently constitute 0.4% of the HGV fleet. They also come with a significant additional cost to a standard diesel-engine tractor unit.

We do expect 100% electric to be in use by 2050 however not to have replaced the whole fleet

- It is one thing to say that all new vehicle registrations from 2050 must be zero emission but it is unrealistic to expect all existing vehicles to be zero emission by the same date

- Fleet turnover on average is 5-7 years
- This can be on average 10-12 years but can be up to as much as 15 for specialist vehicles that aren't used regularly
- Private cars- this will target those who can't afford to upgrade their car or those who have vintage, specialist vehicles
- In order for operators to transition to zero emission vehicles the vehicles must be
  - Available
  - Affordable - as zero emission vehicles become more commonplace and less of a niche market, this should start to happen. However, for fleet operators, the business case for new vehicle purchases is not just based on purchase price, but payback period and residual value. Currently, the purchase price for electric vans for example are far higher than standard diesel, the payback period longer (even taking into account the reduced running costs), and the residual values uncertain. Electric vans for example are far higher, the payback p
  - Reliable - diesel is a trusted fuel, operators know it will perform, alternatives fuels by comparison are more unknown and a riskier option.

Practical terms and consequences of adopting a net zero change - what would it take for our industry to achieve net zero emissions?

- We expect electric to be the main alternative for lighter commercial vehicles, however the cost of procuring these vehicles is prohibitively more expensive than their diesel counterparts currently (though this should change in time).
- As well as investment in supportive infrastructure for an electric fleet, the capacity of the grid needs to be assessed in each area and upgraded where required.
- Many members who have explored making the transition to electric have reported that they have also been required to pay for the upgrade to the grid beyond their own site. It should be the responsibility of the network provider, and not the vehicle operators, to ensure there is sufficient power supply.
- Policy options to support the uptake of alternatively fuelled vehicles/zero capable emission vehicles include the roll out of alternative fuelling / powering infrastructure, and access to infrastructure such as bus lanes.
- In order for industry to transition across to alternative fuels in the medium term (i.e. 2020s), it is essential that Government provides a definition of an Ultra-low emission Truck (ULET) – the type of vehicle it is prepared to support. There is still a high level of uncertainty over the Government's view. Therefore, manufacturers do not have certainty about what to produce, and operators do not have certainty over what to buy. The Government must set a definition so that the necessary infrastructure can be planned.

Without some form of flexibility for commercial goods vehicles with regards to vehicle emissions then we would face a market with limited supply of vehicles at higher cost. This would result in more journeys due to lower payload thus adding to congestion. The cost would also be added to the overall supply chain therefore increasing the cost for moving goods and the cost of goods for consumers. Rural regions would also suffer due to limited range and payload available if only certain types of goods vehicles were permitted for use.

Rail-

- Rail will need to transition to more environmentally friendly power sources than diesel over the very long term – possibly through progressive electrification of the network. The cost of electrification of the network has thus far proved prohibitively expensive, so development of alternative on board power sources may have to be pursued.
- The Clean Air Strategy 2018 has already outlined the Governments plans to test alternatives for trains, looking at the viability of using alternative fuels, including hydrogen fuel cells through research

Power for ships and planes-

- Power for ships is subject to regulation at the global level, complemented by EU (and in the future UK-only) regulation. Ships have a long service life (depending on the type and use) and turnover is slower than in the road vehicle market. The UN agency for shipping the IMO recently adopted an initial strategy to reduce greenhouse gas (GHG) emissions from shipping by at least 50% by 2050. If Scotland unilaterally moved to a zero-GHG emissions approach by the same date it would entail significant market distortion. The timescale on GHGs is driven by the fact that most ships will be using conventional fuels by this date hence air emissions will also continue to be an issue. They will be greatly reduced but not to zero.
- Planes pose a similar challenge to ships for nations looking to set challenging targets in this space. Like shipping, global rules for GHGs are set by the UN agency for aviation, ICAO, which has only recently set a global fuel-efficiency standard for new aircraft. This will apply from designs from 2020, and to aircraft type designs already in-production as of 2023. Those in-production aircraft which by 2028 do not meet the standard will no longer be able to be produced unless their designs are sufficiently modified. It is unrealistic to anticipate new zero-carbon aircraft would be available to serve the Scottish market by 2050. The trend is toward more efficient conventional fuel aircraft rather than alternative fuels, which are highly challenging to introduce in the aviation sector.