

Supplementary written evidence submitted by the Railway Industry Association (TFU0013)

I would like to thank you for inviting me to give evidence to the Transport Select Committee on Wednesday 11 November 2020, as part of the Trains Fit for the Future inquiry. I thought it was an informative session and hope you and the Committee found it useful.

I wanted to write to you to follow up on a number of areas from the session, providing some further detail for the Committee's consideration:

1. Refurbished and new train fleets

In the session, I and the other witnesses briefly spoke about the need for a sustainable rolling stock market. I believe this should be a key consideration for the inquiry as it will significantly impact the UK's ability to deliver a net zero carbon railway.

The rolling stock industry is highly volatile and in recent years we have seen a glut of train orders, with nearly half the total train fleet being replaced over the past five years. This has led to the potential risk of over-capacity in the industry, which may be difficult to sustain in coming years, and has seen the average life of train fleets fall. It has also detrimentally impacted the refurbishment market, which has already seen a reduction in orders, redundancies and the closure of some facilities.

Ambiguity regarding the future of the franchising model and Train Operator Contracts has added to this uncertainty. Hence RIA has called both for a 30 year plan and a Rolling Stock Summit. With regard to the Summit the aim would be to ensure ongoing communication with the whole supply chain including SMEs during this uncertain time – and we very much welcome recent engagement by both Peter Wilkinson, DfT Director Rail Passenger Services and Network Rail Leads on the Whole Industry Strategic Plan with RIA Members.

Getting the right balance of new and refurbished trains on the network is important for a number of reasons. Firstly, if trains are replaced before they become life expired (at around 30 to 35 years), the embedded carbon in those trains is 'released', hindering our aim to achieve net zero. When rail industry experts speak about introducing electrified, hydrogen, or battery rolling stock onto the network, they are often not only speaking about new trains, but also about refurbished fleets. Retrofitting current fleets with low carbon technologies, such as replacing diesel engines with cleaner traction modes, will be essential in avoiding embedding further carbon in new train fleets.

Secondly, replacing train fleets before they are life expired sees the expense of these assets go up, backloading cost onto the railway, as the period of time to pay for these trains becomes shorter. Ultimately, this leads to increased costs for running the rail network.

Thirdly, potential overcapacity in the market may see manufacturers struggle to secure enough orders domestically in the coming years. These companies will either need to look to exporting for further work – with no guarantee that work volumes would reach the same level than that lost in the UK market – or face reducing their capabilities, leading to job losses and sites closing.

RIA is therefore calling for the Government to take a 30 year view on rolling stock, to be developed alongside its Transport Decarbonisation Plan and the Williams Review. We believe consideration of the rolling stock market will be vital in achieving both the UK's decarbonisation goals and for achieving the wider aims of Government for the rail industry, whatever new structure awaits the sector.

2. Overhead Line Electrification

During the Committee discussion there were some questions about whether other technologies might displace Overhead Line Electrification in the future or whether too much electrification is being proposed.

Overhead Line Electrification is an established technology and is currently the only low-carbon solution for trains travelling at speeds above 100mph or those carrying heavy freight. Of course, its main disadvantage is the capital cost of infrastructure which self-powered trains, diesels today and battery and hydrogen in the future, do not need. RIA have hopefully demonstrated through our Electrification Cost Challenge report that electrification can be delivered efficiently but electrification is still more expensive than self-powered rolling stock and so we agree that we should do no more than absolutely necessary.

There is no doubt that other technologies will develop over time. However, there is simply not enough space on trains to store the amount of hydrogen or battery energy needed for high speed and freight services, and technology advances are not likely to close this gap. So, to support freight services in particular, a high proportion of electrification is expected to be needed. Although there may be some change at the margins, in the electrification volumes in the 2040s reflecting advances in other technologies, it is our firm view that all major routes will need to be electrified in the meantime to achieve the net-zero carbon goal.

3. Hydrogen Train Fleets

There was discussion during the Committee session around the role of hydrogen train fleets on the network. RIA believes that hydrogen will play an important role on those lines where there is not a business-case for electrification, particularly branch lines. Crucially, hydrogen rail lines must be developed as part of a wider 'hydrogen economy' strategy, where train fleets can utilise green hydrogen produced as a by-product of industrial processes. Work being undertaken in areas like the Tees Valley will be important in creating a joined-up, whole systems approach for a hydrogen economy.

4. HS2 and decarbonisation

Committee Member Greg Smith MP raised the issue of HS2 and decarbonisation. Rail is a low carbon mode of transport, so expanding the network through projects like HS2 are essential for reaching carbon targets. Promoting modal shift to rail will be essential and HS2 plays a key role in achieving this, by increasing capacity on the West Coast, East Coast and Midlands Mainlines, freeing up the network for both more passenger and freight services.

Of course, the rail industry must work to ensure HS2's carbon impact is as low as possible during the construction phase, but considerable progress is already being made. As High Speed Rail Group's *Towards a Zero Carbon Future* report shows, HS2 Ltd is already outperforming its carbon targets and any curtailment of the project would only serve to hinder its carbon credentials. The report can be found here: <https://www.rail-leaders.com/publications/hs2-towards-a-zero-carbon-future/>

I hope the points above are useful to the Committee. Should the Committee have any further queries, I would be more than happy to provide further information.

Thanks again for the opportunity to give evidence to the inquiry.

Yours sincerely,

David Clarke, Technical Director, Railway Industry Association

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