Rail Partners response to the Department for Transport's consultation on *Adapting the UK's transport system to the impacts of climate change*

About Rail Partners

Rail Partners represents private passenger train operating company owning groups and freight operating companies – providing policy and advocacy functions on their behalf. We also provide technical services to train operating companies in both the public and private sectors. This call for evidence submission is on behalf of our owning group and freight operating company members.

Introduction

The impacts of climate change are already having a significant impact on rail operations with a rise in the number of incidents and delays caused by storms, flooding, landslips, and high temperatures. Preparing for and mitigating against the impacts of more extreme weather events is therefore an industry priority to ensure that the rail network is as resilient as possible so that passengers and freight customers can rely upon it in future.

The rail industry is arguably more advanced in its plans for adapting to climate change than other transport modes. As the main infrastructure manager for rail in Great Britain, Network Rail has developed its own strategy and adaptation reports detailing what it is doing to prepare for climate change. Also, the Rail Safety and Standards Board (RSSB) has produced the Sustainable Rail Blueprint (SRB), which has been developed with cross-industry input including from passenger and freight operators. The collaborative approach demonstrated by industry throughout the development of this Blueprint must now be continued, with Department for Transport (DfT) support, to implement its recommendations. Although the Transport Adaptation Strategy acknowledges the significant role that transport infrastructure operators (TIOs) will have in preparing for a changing climate, the strategy must also reflect the important role that the wider rail industry including train operators has to play. This role must be aided by a clear pathway that enables the rail industry to make holistic decisions to improve network resilience and inform long-term investments from train operators, infrastructure managers, rolling stock companies (ROSCOs), and other industry suppliers.

Since 2016, the transport sector has been the largest source of Greenhouse Gas emissions in the UK economy. However, rail remains a low carbon way to transport people and goods across the country, accounting for just 1.4% of domestic transport emissions.[1] Train operators are working to retain this comparative environmental advantage over other modes by improving the carbon efficiency of their operations through the introduction of new, more efficient rolling stock delivered in partnership with ROSCOs, using low-carbon fuels, and making improvements in operational practices. Rail freight is also a low-carbon way to move goods across Great Britain, with a tonne of freight transport by rail producing 76% less CO_2 per tonne than the equivalent transported by road. As such, further modal shift towards rail of both passengers and freight is vital to prevent climate change caused by carbon emissions. However, driving modal shift will require rail infrastructure to be reliable for passengers and freight customers.

[1] Decarbonising Transport: A better, greener Britain, Department for Transport (2021)

The remainder of this response covers four key areas which Rail Partners considers important to ensure the rail industry can work with third parties to adapt to a changing climate:

1. The rail industry must understand and manage risks effectively
2. The right framework is required to empower train operators to respond to a changing climate
3. The infrastructure manager must be properly resourced and held to account to ensure a resilient railway
4. Greater cross-industry collaboration is necessary to design and implement climate change adaptation strategies

Rail Partners response

1. The rail industry must understand and manage risks effectively

Large parts of the GB rail network were built in the Victorian era and were not designed to be resilient to extreme weather and climate change. As such, GB rail infrastructure can be more susceptible to the impacts resulting from climate change than other transport modes or more modern rail infrastructure in other countries.

Across the industry there is a need to improve understanding of the growing risks posed by climate change to rail infrastructure in order to put in place appropriate mitigations and prioritise investment. Rail Partners therefore supports the recommendation in the Transport Adaptation Strategy for the infrastructure manager, Network Rail, to improve the quantity and quality of climate change data that it holds. Network Rail has a strong understanding of infrastructure risk in some areas, for example relating to Overhead Line Equipment (OLE) and track wear. However, there are other areas including flood risks and the impact of degrading ballast on structures where risk knowledge must be improved particularly as extreme weather events become more frequent. Some of these risks require engagement with third parties, including adjacent landowners to understand and manage risk.

A better understanding of these risks would support the industry in taking a sensible approach to risk management on the network. This might include, for example, imposing more focussed or localised measures during weather related incidents. These measures would limit the disruption caused to passengers and freight customers without compromising on safety risk where Great Britain compares favourably to other European nations with similarly large networks. [2] Such initiatives could include targeted speed restrictions guided by the RSSB Proportionate Risk Response to Implementing Mitigating Speeds to Assets (PRIMA) tool and building on the ongoing trials operating train services through flood water where it is safe to do so.

By improving understanding of risks on the rail network resulting from climate change, the rail industry would be able to take a proactive approach to risk management. Often rail industry focus can be highly reactive to recent incidents. While it is entirely appropriate that reviews are undertaken to understand the failings and put in place improvements for the future, industry efforts must be pre-emptive, preventing or minimising the impact of incidents that are yet to

[2] Common Safety Indicators, Office of Rail and Road (2022)

happen. As outlined in the SRB, a more proactive approach should be supported with improved guidance to support rail industry decision making. Further, climate change adaptation must be embedded within wider rail strategies and investment programmes to ensure that network resilience improvements are appropriately prioritised and not considered in isolation.

While Rail Partners considers that a more proportionate approach to risk is necessary to minimise disruption to customers, in some circumstances the most appropriate course of action will be to temporarily close parts of the network. Where this is the safest decision, passenger operators should not be penalised for not operating services – for example during named storms. Once it is decided to close parts of the network, it can often take too long to reopen lines and restore services. The infrastructure manager should work closely with passenger and freight operators to reduce the amount of time that the network is closed by frequently reassessing whether it is safe to operate services again as the situation evolves. This will help to keep passenger and freight customers informed, while minimising the disruption they experience.

2. **The right framework is required to empower train operators to respond to a changing climate**

Passenger and freight operators must play an integral role in implementing strategies that enable the rail industry to adapt to a changing climate. While resilient infrastructure is key to delivering a railway that can cope with climate change, we would encourage the DfT to increase the focus on the role of the operator within the Transport Adaptation Strategy. We note the recommendations in the strategy relating to operators, specifically that by 2024 train operating companies and freight operating companies should voluntarily report on adaptation activity and that adaptation requirements should be included within contracts and licences in-line with the roadmap in RSSB's Climate Change Maturity Matrix project. Increasingly, reporting is already taking place due to existing contractual requirements, or through requirements for private sector operators to report to shareholders. Further guidance detailing the level of information sought will support different operators to provide information in a clear and consistent format. As proposed in the SRB, Rail Partners supports the creation of new metrics to measure operational resilience to provide a cross-industry approach to measuring adaptation performance which could be used to monitor delivery and improvements. In addition to annual reporting, long-term targets consistent with industry strategies will help to inform planning and investment decisions by operators, infrastructure managers, and supply chains.

TOCs are now required to report to DfT on a range of sustainability commitments within their contracts and are increasingly focussed on this across their operations. However, these contracts are tightly managed by DfT and do not include the commercial freedoms to incentivise longer term thinking and investments. To ensure that train operating companies play their part in adapting to climate change, future passenger service contracts should support appropriate resourcing of TOC climate adaptation activities and incentivise train operators to develop the required expertise to understand and manage climate risks and to deliver improvements. This will enable them to take a longer-term approach to climate adaptation and support the deployment of new technology and innovative solutions across their operations. Some examples of train operator initiatives that are necessary to adapt to a changing climate include improving air conditioning systems within rolling

stock to ensure that passengers can travel comfortably during high temperatures and 'eco-driving' traction management which Rail Partners is already providing guidance to train operators on.

Freight operating companies are also committed to improving their sustainability credentials and are working closely with DfT, RSSB, Network Rail, and freight customers to adapt to a changing climate. Freight operators provide critical services to Network Rail helping to manage different type of seasonal weather events including through route proving, operating railhead treatment trains (RHTT) and operating snow ploughs to remove snow and ice for lines so they are safe for other passenger and freight services to use.

3. **The infrastructure manager must be properly resourced and held to account to ensure a resilient railway**

The rail industry benefits from a five-year funding settlement from the Department for Transport for the operations, maintenance, and the renewal of the operational railway. This multi-year settlement helps to give certainty enabling Network Rail to plan and deliver against the High Level Output Specification (HLOS) set by government. It also supports private sector investment from train operators and helps supply chains to organise their activity. Rail Partners recognises that the £44bn that the government has committed to the rail industry during control period seven (CP7) represents a significant level of commitment to the rail industry in a constrained funding environment and in addition to the financial support provided to train operators and Network Rail during the pandemic. Despite this significant commitment, overall funding is 1% lower in real terms than in the previous control period. As such, Network Rail must work hard to efficiently deliver on the commitments in its Strategic Business Plans which have been approved by the Secretary of State.

Within a constrained funding environment, it is often difficult to prioritise mitigations for climate change which have longer-term pay offs. This has been reflected in successive control periods where less funding has been allocated to initiatives to improve network resilience. The failure to invest adequately in climate change mitigation, particularly in improving the resilience of rail structures means that large parts of the rail network are not sufficiently resilient. A greater focus on climate change mitigation now will help to lower whole life costs and ensure a steady pipeline of work for the infrastructure manager to deliver.

Positively, for CP7 Network Rail has set out a much clearer focus on climate change mitigations. Looking further ahead, additional focus on network resilience is required, particularly with the Office of Rail and Road's (ORR) final determination outlining that it expects Network Rail's Composite Sustainability Index (CSI), which measures asset sustainability, to decline by 2.5 years in England and Wales and 2.1 years in Scotland, over the next five years. ORR does not expect asset sustainability to recover until the 2040s.

Stretching targets should be placed on Network Rail by the ORR in future control periods to improve network resilience supported by appropriate government funding for infrastructure investment. This should include a renewed focus on improving Network Rail's asset CSI more quickly than that set out in Network Rail's forecast trajectory which would not see asset sustainability recover from CP6 exit levels until the 2040s. This is important to restore network performance levels and ensure that the rail network is resilient to climate change impacts. To

support this objective, Rail Partners agrees with the Transport Adaptation Strategy that ORR should encourage better uptake of reporting – particularly within Network Rail.

To help understand and justify additional expenditure on climate change mitigation, better data and information systems should be used to identify structures at risk so that existing funding to support mitigation can be channelled into the right areas and potentially to support additional funding in future including through the Rail Network Enhancements Pipeline (RNEP). Where new or renewed infrastructure is delivered on the rail network, it is important that it is specified and designed to be resilient to climate change over its lifespan to minimise additional maintenance expenditure.

As the impacts of climate change on the rail industry increase, there must be a stronger regulatory focus from the ORR on monitoring this area. We recognise that the PR23 final determination did place greater emphasis on sustainability and that resilience is already considered to an extent through the monitoring and regulation of Network Rail's performance. However, there is a need to build further on this in future control periods. This enhanced regulatory focus should be through ORR's role in holding Network Rail to account, and in its capacity as the safety regulator for the rail industry.

ORR should also expect Network Rail to sufficiently prioritise investments or initiatives which mitigate against climate change, and, in a constrained funding environment, their delivery should be monitored closely to ensure financial efficiency. ORR should also expect Network Rail to work closely with third parties to manage risks to rail infrastructure that originate outside of the rail estate. Planning regulations should highlight the responsibility for land owners to manage their property with consideration to any adjacent rail infrastructure and the impact on rail infrastructure should be considered when planning decisions for new sites are made.

4. **Greater cross-industry collaboration is necessary to design and implement climate change adaptation strategies**

As stated in the introduction, the rail industry is arguably further ahead in preparing for a changing climate than other transport modes. In addition to the RSSB's Sustainable Rail Blueprint, Network Rail also has an Environmental Sustainability Strategy and has produced three adaptation reports in accordance with health and safety legislation requirements. Network Rail authors these documents, and while train operators are consulted on them, a more collaborative approach is needed to balance engineering and operational interventions and support implementation.

Rail Partners supports the commitment in the consultation document that by 2027 Network Rail will agree levels of service in extreme weather conditions with government and regulators. This is important to ensure funding is allocated optimally and that impacts on passenger and freight customers are minimised. Rail Partners believes that passenger and freight operators should also be engaged alongside Network Rail, DfT and the ORR during this process due to their operational expertise and understanding of customer requirements. As a trade body for passenger and freight operators, Rail Partners already brings operators together to discuss operational matters and encourages the sharing of best practice across the train operating community.

One important area where collaboration could be improved is in relation to the sharing of data between train operators and Network Rail. By sharing data quickly and transparently across parties, it will improve the industry's ability to agree appropriate operational measures to ensure that services can continue to run safely. It can also help train operators and Network Rail identify structures at risk and consider where funding should be allocated. Decisions on where to allocate funding must balance the risk to the structure with the relative impact of any disruption to passenger and freight customers. Within a constrained funding environment, Rail Partners believes that greater focus on mitigation should be given to lines with high volumes of passengers or freight.

Another aspect where further cooperation between the infrastructure manager and train operators is needed is in relation to customer information. Train operators must be informed regularly whether there is a risk of disruption resulting from extreme weather events such that they can provide customers with notice that services may be disrupted or cancelled. Passengers and freight customers must also be advised of the duration of the disruption so that they can make other arrangements if necessary. Without regular updates and information, customer confidence in using rail will be undermined, which could suppress future passenger and freight growth and lead to greater carbon emissions if customers use more carbon intensive modes such as road.

Rail Partners is supportive of the creation of a new arm's length body for the rail industry and considers that Great British Railways (GBR) can support a more collaborative approach to preparing for climate change. GBR can achieve this by bringing track and train closer together, supporting greater information sharing between operators and the infrastructure manager and balancing operational and engineering decisions to deliver a more resilient railway.