

Rail Delivery Group

Response to:

The Environment Food and Rural Affairs, Environmental Audit
Committee, Health, and Transport Committees

Improving air quality inquiry

Date: 9 November 2017

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Health, and Transport Committees**

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Organisation: Rail Delivery Group

Address: 200 Aldersgate Street, London EC1A 4HD

Type: Business representative organisation

The Rail Delivery Group (RDG) brings together passenger train operators, freight train operators, as well as Network Rail; and together with the rail supply industry, the rail industry – a partnership of the public and private sectors - is working with a plan *In Partnership for Britain's Prosperity*¹ to change, improve and secure prosperity in Britain now and in the future. The RDG provides services to enable its members to succeed in transforming and delivering a successful railway to the benefit of customers, the taxpayer and the UK's economy. In addition, the RDG provides support and gives a voice to passenger and freight operators, as well as delivering important national ticketing, information and reservation services for passengers and staff.

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¹ *In Partnership for Britain's Prosperity*, RDG (October 2017):
<http://www.britainrunsonrail.co.uk/files/docs/one-plan.pdf>

1. Overview

- 1.1. Rail is fundamental to Britain's prosperity. After enormous growth over the last 20 years, Britain's railway is increasingly important in connecting workers to jobs, businesses to markets, and people to their families and friends. More than £50bn is being invested into the railway over the next few years and analysis by Oxera forecasts that the combination of public and private investment going into the railway will secure a boost to the UK's economy of almost £85bn.²
- 1.2. The RDG welcomes the opportunity to respond to the Committees' inquiry into improving air quality. Whilst we are not positioned to examine and comment on whether the Government's new plan to cut air quality will go far enough, or fast enough to both meet legal limits and deliver the maximum environmental and health benefits, we can comment on how passenger and freight train operators contribute toward reducing air pollution. In addition, RDG can set out effective and proportionate measures that will help achieve necessary emissions reductions as quickly as possible

2. Helping to improve air quality

- 2.1. The rail industry has an important role to play in reducing CO2 emissions and improving air quality. Already a relatively green mode of transport, CO2 emissions generated per kilometre by passenger operators have decreased by 21% since 2005-06³; and Oxera analysis shows that rail helps reduce CO2 by up to 8.4million tonnes per year.⁴

3. Importance and benefits of rail freight

- 3.1. Rail freight makes an important socio-economic contribution to the UK, not only adding £1.2bn per annum to the economy, but also benefiting the environment by taking millions of lorries off our roads. Each freight train removes up to 76 lorries from the roads⁵, and rail freight reduces CO2 emissions by up to 76 per cent compared to road⁶.
- 3.2. Moreover, being far more energy efficient, rail freight remains a key part of the solution to reducing air pollution. A tonne of goods can travel 246 miles by rail as opposed to 88 miles by road on a gallon of fuel. Rail fundamentally uses less fuel than road and therefore emissions per tonne of freight moved are also lower. This contribution by rail is recognised by both the Government and the general public. As the Department for Transport's Rail Freight Strategy states: "[We] recognise the positive benefits of rail freight for the UK – including its environmental and air quality benefits relative to road freight and its impact

² Oxera, *Investment in rail: the economic benefits* (October 2017) p.1:

<https://www.raildeliverygroup.com/component/arkhive/?task=file.download&id=469773423>

³ *Rail's transformation in numbers – Dataset on rail industry finances, performance and investment since 1997-98* (2016), p. 21:

<https://www.raildeliverygroup.com/about-us/publications.html?task=file.download&id=469771169>

⁴ Updated Oxera figure (commissioned by the RDG) based on *What is the contribution of rail to the UK economy?* Oxera (2014), p. 2:

<https://www.oxera.com/getmedia/802a4979-8371-4063-ad24-8a81ed6c8f82/Contribution-of-rail-to-the-UK-economy-140714.pdf.aspx?ext=.pdf>

⁵ *Freight Britain*, RDG (2015); p. 10:

https://www.raildeliverygroup.com/files/Publications/2015-02_freight_britain.pdf

⁶ *Freight Britain*, RDG (2015); p. 9:

https://www.raildeliverygroup.com/files/Publications/2015-02_freight_britain.pdf

on reducing road congestion".⁷ Further, according to polling commissioned by the Campaign for Better Transport (CBT), almost two thirds (61%) of people believe that more freight should be transported by rail rather than road.⁸

4. Performance of rail freight

- 4.1. Heavy goods vehicles (HGVs) account for a significant portion of the UK's air quality impacts from transport. Indeed, HGVs account for around 21% of road transport nitrogen oxide (NOx) emissions while making up just 5% of vehicle miles.⁹
- 4.2. Using the latest data available, rail produced 90% less PM10 particulates and up to 15 times less NOx emissions than HGVs for the equivalent journey:

Table 1. Freight Transport: Average emissions in grams per tonne-kilometre

Mode	PM10	CO	NOx	CO2	VOC
Rail	0.004	0.032	0.31	0.05	0.021
HGV	0.048	0.33	1.74	0.17	0.15

Source: Rail Safety and Standards Board, 2007

- 4.3. We recognise that these figures are 10 years old and require updating to take into account changes to road and rail efficiency, as well as the introduction of less polluting lorry and locomotive rail engines since these figures were published in 2007. The RDG therefore intends to undertake further analysis in the coming months to further improve understanding of this matter, and demonstrate how the industry - working together - can continue to improve air quality. We will be open to sharing our analysis with the Transport Select Committee, and other interested committees, once this work has been concluded.

5. Responding to the issue

- 5.1. The partnership railway is already taking steps to further improve its performance, particularly around investment into new rolling stock. Freight operating companies have, inter alia, replaced older locomotives with class 70s and 68s. Moreover, Direct Rail Services have invested in a fleet of 10 class 88 dual electric and diesel locomotives which can go anywhere on the network; and retrofitting of start-stop technology has been adopted on class 66 locomotives to reduce fuel usage.
- 5.2. Rail freight operators are also working to become even more efficient and move more freight per train, using the same locomotives. This inherently leads to a reduction in carbon and other emissions per tonne mile of freight moved. In addition, much progress has already been made in this area with 30% fewer, but longer and heavier trains running per annum.

⁷ Rail Freight Strategy – Moving Britain Ahead, DfT (2016); p. 10:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/552492/rail-freight-strategy.pdf

⁸ <http://freightonrail.org.uk/PressRelease30-06-2017-opinion-poll.htm>

⁹ Freight Carbon Review – Moving Britain Ahead, DfT (2017):
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/590922/freight-carbon-review-2017.pdf.

6. Suggested measures to improve air quality

- 6.1. Within the context of delivering its plan to reduce air pollution, we would recommend the Government supports the following measures:
- 6.2. Level the playing field between rail freight and road freight to address research that shows rail freight competing with HGV on price despite HGVs only internalising around 30% of the costs they impose on society (CBT).¹⁰ Fuel duty on HGVs has been frozen since 2011, whereas rail track charges have risen over the equivalent period. We propose an enhancement and broadening of scope for Mode Shift Revenue Support (MSRS).
- 6.3. Rail freight is and should continue to be part of the solution as a mode that uses less fuel to move the same tonne miles as road freight. Plans to improve air quality should therefore include a greater focus on considering options of how people and goods move, and stimulate modal shift to rail rather than simply focussing on reducing pollution from existing road movements.
- 6.4. Expand Government-funded research and development programmes to include rail freight. Currently these only cover passenger rail and HGVs.
- 6.5. Support better monitoring and data collection of rail freight emissions.
- 6.6 (a) Ensure long-run efficient, stable and affordable access charges and incentives to enable long term investment and growth.
 - (b) Develop a stable long-term planning framework and continued investment through the Strategic Freight Network (in capacity and capability improvements) following the positive news from the recent SOFA.
 - (c) Streamline planning processes to enable freight terminal locations and railheads to be established in urban areas. Strategic retention of land is essential for operational use and growth. Freight needs to be specified on planning consents – refuse management, HS2 delivery, etc.
 - (d) Ensure rail freight is a central part of the Government investment programme in Digital Railway and thus enable improvements in freight performance and pathing on the network, which will, in turn, reduce fuel use.

¹⁰ *Heavy Goods Vehicles – do they pay for the damage they cause?* CBT (2014):
<http://www.bettertransport.org.uk/sites/default/files/research-files/hgv-track-cost-report-2014-june.pdf>