

Freight on Rail response to Call for Evidence to National Infrastructure Commission:

This is the Freight on Rail response to the National Infrastructure Commission (NIC) call for northern evidence .

Freight on Rail, a partnership of the rail freight industry, the transport trade unions and Campaign for Better Transport, works to promote the economic, social and environmental benefits of rail freight to local, devolved and central Government in the UK and to the European Commission, Parliament and Council of Ministers.

Summary

In addition to the terms of reference, covered in our sections A, B & C, we would like to make key general points, which are not only relevant to all three NIC terms of reference but also to the vast majority of NIC future infrastructure schemes.

NIC needs to take into account the socio-economic benefits of rail compared to HGVs which impose high external costs on society which are not internalised. Government policy, as a whole including the NIC, should set equitable transport policy across the modes which takes into account these market distortions. (See section 6)

Our response is comprised of key general points with headings below, explained in detail in sections 1-7 followed by our response to your terms of reference in sections AB & C.

The general points are covered under the following headings below:-

Growth of rail freight and its importance to UK PLC

Infrastructure Commission should make using rail a planning condition

Road and rail complement each other as part of the logistics solution

Rail's role in delivering to cities and transshipping to last mile low emissions deliveries

Land use planning

Lack of a level playing field between modes

Upgrading key rail routes can significantly reduce road congestion on key strategic corridors

1. The growth of rail freight and its importance to UK PLC

Both the Secretary of State for Transport, Patrick McLoughlin and the Rail Minister Claire Perry have voiced their support for rail freight. In June 2015 Claire Perry commented on *'the remarkable*

rise of rail freight' at the *Rail Engineers Forum* conference in June 2015. She highlighted rail freight's excellent record to date and its forecasted growth in two key market sectors saying that the Government wants to work with the rail freight industry to remove barriers that inhibit that growth.

On December 9th 2015, the Secretary of State endorsed her statement saying *"that the story of our modern rail industry is amazing and freight is a key part of that. We want rail freight to grow much further because demand to going to keep increasing"*.

Consumer traffic has grown by 30% since 2006/7 and grew 5% in the last full year14/15.

Construction traffic increased by 17% in 2013/14 and 10% last year with 2.5 per annum growth forecasted. The decline of coal traffic has been largely anticipated and forecast although the scale of the decline was sharper than expected; coal traffic was down 61% in the first quarter of 2015/16. So the Government and devolved bodies need to work together with the industry to provide a network which can cater for more consumer rail traffic and construction traffic, both forecast to expand, to replace the coal traffic.

Industry Forecasts show intermodal rail traffic will quadruple by 2034

Consumer rail traffic is forecast to quadruple by 2034. Construction traffic 2.5% annum growth forecasted. But forecast are dependent on upgraded network and existing market conditions.

Retention of the mode shift benefit grants are important to overcome the lack of a level playing field between HGVs and rail. See section 6

2. **Infrastructure Commission should make using rail a planning condition** during construction phase of infrastructure projects for the delivery of raw materials and removal of spoil because of its lower external costs than road freight. The nearest railhead should be used whether building roads, rail, power stations or airports, using nearest railhead. The Olympics, Crossrail and Terminal 5 are good case studies of demonstrating the benefits of this approach.
3. **Road and rail complement each other as part of a logistics solution** by each playing to its strengths. As well as its bulk commodity markets, rail is well placed to offer the long-distance trunk

haulage for consumer traffic, as demonstrated its 30% growth since 2006/7 and its sustained 33% market share for the past few years, including in 2014/15.

4. Rail's role in delivering to cities and transshipping to last mile low emissions deliveries

A growing number of cities in the UK need to reduce air pollution to comply with EU regulations as seen by the Supreme Court ruling on London's air pollution violations. By 2020 Leeds will not be compliant with EU NOX regulations. Rail has far lower NOX emissions and lower particulates which are the key air quality problems. Two separate Colas Rail trials with TNT and Stobbarts into Euston have proved that specialist freight trains can come into the heart of cities where the cargo can then be discharged into low emissions vehicles. Similarly, if rail connected consolidation centres are set up on the edge of conurbations rail can be part of the logistics solution by transporting the goods long-distance and then transhipped to low emissions vehicles for final urban deliveries.

5. Land use planning

We believe the NIC needs to be cognizant of the importance of land use spatial planning in delivering national infrastructure. Without coherent and integrated spatial and transport planning, the NIC, TfL and TfN will find it difficult to deliver the required rail upgrades. TfN can set the overall spatial planning framework for the North and direct local authorities to safeguard suitable sites and rail alignments for potential rail use in their Local Development Frameworks. For rail freight, it is crucial that local and regional authorities protect suitable sites for terminals for future potential use because there are a limited number of suitable locations which have the necessary rail and road connections. The Government's National Network National Planning Policy which includes the Strategic Rail Freight Interchange policy would support applications for SRFIs nationally significant infrastructure projects in the planning system.

6. Lack of a level playing field between modes

All levels of Government must take into account the scale of subsidy given to HGVs and the level of external costs unpaid by the sector in their transport planning; HGVs impose almost ten times

more external costs on the economy and society than rail freight. The latest research carried out for the Campaign for Better Transportⁱ using DfT values, found that HGVs pay less than a third of their costs, such as road congestion, road collisions, road damage and pollution which equate to an annual subsidy of around £6.5 billion. These conclusions are in line with a MDS Transmodal study in 2007 which found a very similar amount of underpayment: £6billion. The Government needs to recognise HGV costs in discussion about rail freight costs so that policy implications can then be understood in both directions with road and rail being examined across the piece. The level of HGV subsidy makes a compelling case for supporting rail, which imposes much lower costs on society and the economy, equivalently.

7. **Upgrading key rail routes can significantly reduce road congestion on key strategic corridors**

Research commissioned by CBT looked at specific routes which typically tend to be more congested because of more long-distance HGV traffic, particularly to ports. Its key findings were that:

- a) Some parts of road network have more long distance HGV traffic which could be carried by rail
- b) The impact of additional traffic in already congested conditions is far greater than a simple increase in pcu or vehicle kilometres suggest – it rises exponentially.
- c) In congested conditions each single per cent increase in traffic causes several percentage increase in congestion. In fact, Department for Transport figures state that a modest decrease in traffic of around 2%, results in congestion falling by 10%. DfT figures show that on congested parts of the network, congestion could be three to four times the percentage reduction in overall traffic levels, using a simple low congestion impact multiplier of 3-4.

The research found that in key corridors, such as the Trans- Pennine, London to East Midlands, Felixstowe to the North, Southampton to the North, Yorkshire and NE including M1 and A1, which all suffer severe congestion at peak hours the transfer of freight to rail could be significantly alleviate road congestion by removing HGVs.

<http://www.bettertransport.org.uk/sites/default/files/research-files/Freight%20mode%20switch%20report%20d6.pdf>

Importance and strength of rail freight as part of the logistics solution.

- Rail freight generates more than £1.6bn a year in economic benefits for UK PLC through improved productivity, reduced congestion and wider environmental benefits.
- Rail freight transports goods worth over £30bn a year, ranging from high end whiskies and luxury cars to supermarket products, cement and coal. Rail moves one in four of the containers entering the UK and half of the fuel used in electricity generation.
- The Hendy Review, which was tasked with reviewing the status of the Network Rail enhancement projects, acknowledged rail freight schemes deliver very high value for money. It stated that the average benefit cost ratio for rail freight schemes is between 4 to 5ⁱⁱ, which demonstrates that rail freight upgrades offer significant socio-economic benefits to the UK. Targeted infrastructure interventions work; the gauge enhancements out of the port of Southampton resulted in rail's market share increasing from 28 to 36% within a year of the completion of the work.
- **Terminals help regenerate local economies**
Local and regional authorities and LEPS therefore need to take into account the fact that rail freight terminals bring local re-generation benefits. Strategic rail freight interchanges (SRFI) can employ large numbers of staff directly. Daventry SRFI now employs around 5000 staff which will rise to 9000 when current expansion is finished. There is scope for terminals of all sizes which need new road/rail works.
For example, LEPS could help fund new roads to SRFIs and rail connections to the network for terminals through the Local Growth Funds.
- Rail freight industry has invested over £2bn since the mid 1990s

Rail freight's socio-economic benefits to society and the economy

- Rail freight is safer than road freight, HGVs are more than 6 times likely to be involved in fatal accidents than cars on local roads. *Source: Traffic statistics table TRA0104, Accident statistics Table RAS 30017, both DfT*

- Transfer to rail can reduce road maintenance costs as HGVs have an adverse impact on road infrastructure. The heavier HGVs are 160,000 times more damaging to roads than the average car-Source 4th Power law. This was shown by the high HGV charge for the M6 toll road, a private venture.
- Congestion benefits of rail freight - road congestion is now costing around £24 billion per annum according to the Freight Transport Association; the heaviest freight train can remove a 160 long distance HGVs from our roads – *Source Network Rail June 2010 Value of Freight*.
- UK rail freight produces 70% less Carbon dioxide emissions than the equivalent road journey-
Source DfT Logistics Perspective Dec 2008 P8 section 10
- Energy efficiency of rail
A gallon of diesel will carry a tonne of freight 246 miles by rail as opposed to 88 miles by road –
Source Network Rail July 2010
- Rail freight produces almost 90% less PM10 emissions than road freight and up to fifteen times less NOX emissions – DfT Logistics Perspective Dec 2008 P8 paragraph 10
- Damage and costs of main pollutants from transport
Road transport is the source of 80% of NOx in problem areas which rail can help reduceⁱⁱⁱ.

A.Future Investment in the North's transport infrastructure

Existing constraints

The lack of capacity now and for future growth is a huge constraints on rail freight.

Especially on the Trans-Pennine, WCML, and ECML routes and there are significant constraints on other key routes both within and outside the region.

Demand for freight traffic on the Trans-Pennine route will grow for domestic and deep sea intermodal traffic as well as biomass from Liverpool to Drax. It is important to protect existing WCML freight capacity and get released capacity when HS2 is built. More capacity is also needed on the ECML and MML with capability upgrades needed on the latter.

Identifying Trans-Pennine freight capacity will be a major challenge for a number of reasons on both the north and south routes. The biggest issue is how to resolve conflict with passenger service aspirations for paths on the route. The Diggle route has a large number of passenger trains and will need some interventions to allow any freight services to run during the daytime. Fewer and longer passenger services may ease the issue but some long loops are likely to be needed between Stalybridge and Huddersfield. The Calder Valley route is actually already handling 2500 tonne freight services today; Biomass from the port of Liverpool to Drax Power Station and coal from the port of Imminham to Fidlers Ferry Power Station. However, it will also need interventions due to competing aspirations of increased passenger and freight traffic.

All Network Rail Northern Hub outputs have been delayed including TP electrification. Castlefield Route (Manchester to Trafford Park) may be subject to a Judicial Review. Options include the Southern Trans-Pennine route (Hope Valley, Sheffield to Buxton) which already carries major quarry and cement flows. Of the various northern route options none are straightforward. The Diggle route has very high passenger flows, Calder Valley has adverse gradients and signalling constraints, it will be expensive to expand capacity on the Manchester Corridor. East from Stalybridge the passenger demand is very high. Routes need to be able to cope with 1800 tonne weight.

Rail freight interventions, developments and investments needed in both north and nationally to build sustainable transport infrastructure.

Therefore the lack of capability on the Trans-Pennine route, i.e. none of the Trans-Pennine freight routes are gauge-cleared for container traffic and there are loading capacity constraints to cater for 1800 tonnes on certain parts of the routes. Significant investments in the network are needed for the capacity and capability constraints, as explained above, to be resolved. It is paramount that existing traffic is protected and future traffic requirements are taken into account. Need to growth intermodal traffic which needs access and faster speeds

Access to ports Teesport – bulk and intermodal with scope to expand rail freight volumes.

The port of Liverpool, with established rail traffics such as coal, steel and biomass, is investing in a new £300m deep-water container terminal that will double the port's container handling capability and a trial rail intermodal service to the West Midlands has recently been operated. If the port's aspirations for

growth are achieved, it is likely that there will be significant increases in rail freight volumes and these are likely to impact across the north of England and pose significant challenges for the rail sector.

Liverpool port redevelopment part of SFN upgrades to be delivered by mid CP6 are key to the region (the Northern ports rail study detailed the key rail network upgrades needed.)

Capacity upgrades needed from Felixstowe to the North.

In addition to the need for a capacity enhancement on the branch line out of the port which is part of the SFN funded works for completion by mid CP6, the rest of the strategic route to Nuneaton to link with WCML is needed as a priority to enable growth out of the port given the lack of capacity on the Great Eastern and North London lines. It is well known that there is suppressed demand for rail freight services out of both the ports of Felixstowe and Southampton particularly where the provision of additional freight path would be used immediately.

Need for more intermodal terminal capacity and consolidation centres

Distribution patterns are changing, there are growing business requirements for warehousing in the north, which previously had been more popular in the Midlands.

Doncaster SRFI, 3M. Other terminal applications such as Port Salford and Rossington.

Kegworth and Etwell are outside but near the region and may therefore serve the southern parts of the North.

We oppose the Trans-Pennine road tunnel on economic, safety and environmental grounds

The latest version of TfN's plans and the recent Spending Review commit to rail electrification, smart ticketing and improvements to freight journeys which is key for the Northern Powerhouse. However, the socio-economic case for the trans-Pennine road tunnel is not consistent with the Government's socio-economic plans including web TAG. The recently published Interim Report, states that a new dual carriageway or motorway, connecting the M1 in South Yorkshire and the M67 in Tameside and bored under the Peak District National Park, is not only feasible to construct operate and maintain but would allegedly bring huge economic benefits. The NIC will need to examine whether there is robust evidence for these economic benefits, let alone the wider agglomeration benefits, carbon impacts or synergies with rail. Questions remain about the purpose of the new route, who or what is the project trying to move from A

to B, is it commuters between Manchester and Sheffield city centres, or between their wider conurbations, or even their City Regions? Or road freight between east west ports or between logistic centres such as Trafford Park, Wakefield, Doncaster and Rossington Inland Port?

These questions need to be answered before a road option was pursued. The tunnel promises to bypass the M62 and knock 30 minutes off a trans-Pennine car journey but would probably dump traffic in the already congested urban areas to sit in queues, add to pollution and lose any time saved. With a narrow focus on journeys between Manchester and Sheffield how would other northern cities and towns benefit? The need to tunnel under the Peak, if pursued, will eat up at least £6 billion (and that is just the starting estimate), which could be invested across the whole of the North in new and faster rail routes between cities, and buses, trams, walking and cycling facilities and public realm investments within cities and towns. These could all happen far quicker and more cheaply than this road project, which also faces huge challenges in terms of financing, construction, safety and operations. The study needs to beware of what has happened on the Brenner Pass between Austria and Italy – increasing numbers of HGVs have left Alpine communities plagued by heavy traffic and the pollution that comes with it. Furthermore, road tunnels are extremely expensive in maintenance once they are built (aeration, lighting, cleaning etc.). The Gotthard road tunnel costs up to 40 million CHF (around £27 million) every year. Rail tunnels have much lower maintenance costs.

Philippa Edmunds Freight on Rail Manager January 2016

ⁱ Addendum to Metropolitan Transport Research Unit MTRU 2014 report February 2015. Heavy Goods Vehicles – do they pay for the damage they cause 2014

ⁱⁱ Ref 28 Hendy Review

ⁱⁱⁱ NOX costs the UK 6576 euros per tonne, in urban areas PM2.5 costs 194751 euros per tonne. Source Ricardo-AEA et al - Update of the handbook on external costs of transport 2014 using figures for 2010.