



**NATIONAL INFRASTRUCTURE COMMISSION  
FREIGHT STUDY: Call for Evidence  
February 2018**

1. The Associated Society of Locomotive Engineers and Firemen (ASLEF) is the UK's largest train driver's union representing approximately 20,000 members in train operating companies and freight companies as well as London Underground and light rail systems. The union has 1,825 members in the freight industry which is a quarter fewer than 16 months ago, because drivers have been pushed to retire, leave the industry or move to driving passenger services where they can expect better job security.
2. ASLEF welcomes this freight inquiry as an opportunity to make the case for more to be done to strengthen the rail freight sector. We were disappointed that the NIC's report '*Adonis: tackle the three Cs and deliver a world-class infrastructure*' undervalued the advantages of rail freight over road freight. We hope to convince the NIC and others that major investment in infrastructure and improvements to policy for the rail freight sector will be a cost-effective and efficient way of meeting the demand for convenient, fast delivery of goods without adding to road congestion, road accidents and air pollution.

**1.1. What do you see as the key drivers to a successful freight system that is fit for the future?**

3. We recognise that nationally the demand for the delivery of goods is growing but both our roads and rail network are under pressure from congestion. A successful freight system is capable of moving goods quickly, punctually and affordably without a detrimental effect on the environment. While we see rail freight as presenting many important advantages over other modes of transport for freight, we also recognise that rail freight will never provide a substitute for short distance trips in vans and small vehicles, for example. Rail freight is well positioned to transport heavy or unusual loads and it is able to move some items that lorries can't, such as steel which is loaded while still hot. However, looking at the bigger picture, the largest commodity group is now domestic intermodal which grew by 6% last year reaching 6.8 billion net tonne-km<sup>1</sup>. The best way of driving a successful freight system is to ensure that goods can be moved smoothly between transport carriers, with well-timed onward intermodal

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<sup>1</sup> <http://www.bettertransport.org.uk/blog/better-transport/government-must-support-rail-freight>

connections. This will require investment in our infrastructure and measures to ensure that regulations are favourable (e.g. fair charges for rail freight operators and protection of land for freight yards and hubs, access to freight routes, etc) in order to build confidence in the industry among operators and their customers.

**1.2. Which are the key freight corridors that matter the most? Where are the bottlenecks in the freight network, and what investments in upgrades could deliver the best value for money for freight efficiency and UK plc?**

4. Until infrastructural capacity issues are addressed the rail freight industry is unlikely to invest. At the port in Immingham, our members see many new cars being unloaded from ships but none of the vehicles leave by rail because the rail network doesn't extend into the docks. Missed opportunities such as this, resulting from lack of infrastructure, are currently common across the country. We need major infrastructure projects to address the issue of rail hub access and to ensure that we have the interchanges necessary for freight to be transferred between transport modes. Rail freight is also constrained by the UK's Victorian infrastructure with tunnels, bridges and track that are not able to accommodate the vehicle weight and length required for trains to pass loaded with ISO shipping containers or double decks. Going forward, all investments in new infrastructure must work for the needs of the freight sector, to enable trains to significantly expand the volumes they carry. This means that vehicles with wider loading gauges need to be taken into consideration when upgrades are made to railway infrastructure. Experience has shown that targeted rail freight projects are worth investing in. For example, the gauge upgrades out of Southampton Port increased rail's market share from 29% to 36% within a year and had a benefit-cost ratio of 5 to 1<sup>2</sup>.
  
5. Currently the vast majority of rail freight services do not travel at peak times and are often forced to use secondary lines in order to give access to passenger trains on the main lines. The way passenger services are prioritised over freight services is bad for business for freight operators, who need better scheduling and timetabling of freight paths to make them more efficient. Research<sup>3</sup> recently carried out for the Campaign for Better Transport (CBT) illustrates how infrastructure work to upgrade existing rail lines that run parallel to motorway routes would enable freight trains to run much more effectively and would allow large numbers of lorry loads to be transferred to rail, thereby easing congestion, improving air quality and reducing road collisions. The study looked at four of Britain's busiest freight routes (the A14 between Felixstowe and the Midlands, the A34 from Southampton to the Midlands, and the M6 and M62 motorways) which together carry around 37,500 HGVs every day and found that switching some freight to trains could mean fewer HGVs on the road, a 2.5% reduction in carbon emissions and 10%

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<sup>2</sup> <http://www.freightonrail.org.uk/ColumnJanuary2018.htm>

<sup>3</sup> <http://bettertransport.org.uk/sites/default/files/research-files/cross-modal-freight-study.pdf>

less air pollution from NOx across the country. The 33 freight trains in and out of Felixstowe already remove around 2,500 lorries per day off the congested A14 corridor and, with funding, rail freight could be increased by 50% coming out of Southampton Port within the next five to seven years.

6. We are convinced that platooning would not work in the UK with our over-congested motorways. It would hamper cars, coaches and other trucks from seeing signage and would make changing lanes and joining / leaving roads difficult. Even at quiet times of the day or night, platoons would be split up whenever a truck slowed down to turn off at a junction. And unless all of the trucks in the platoon were the same model, were fully loaded with an equal weight, had the same power engine, and could accelerate at the same speed, they would not be able to stay together at an optimal speed for all of them<sup>4</sup>. An average freight train can remove 76 lorries from our roads<sup>5</sup> so this is, in our view, a better option by far.

### **1.3. To what extent are the economic benefits of freight factored into wider transport infrastructure investment planning?**

7. ASLEF does not believe that the economic benefits of freight are factored into wider transport infrastructure investment planning adequately enough. Shippers and construction firms are crying out for more rail freight services but the ability to meet that demand is constrained by the rail network and the limitations on operator's access to paths. As mentioned above, tracks, overhead masts and bridges are not built taking into consideration the needs of rail freight and availability of track access is restricted and generally only possible at unsociable hours, working around passenger services.
8. Rail freight plays an important role in our economy: The Rail Delivery Group calculate that rail freight is worth £1.6 billion per year to the UK economy<sup>6</sup>. Rail freight serves markets as diverse as waste management and finished vehicles. Each year the rail freight industry carries goods worth over £30 billion ranging from high end whiskies and luxury cars to supermarket products, steel, cement and construction materials. Construction traffic grew 10% last year<sup>7</sup>. Network Rail say that rail freight is vital to Britain's economic success, and the UK rail freight sector contributes £299 million in profits and wages to the UK economy<sup>8</sup>. Rail operators pay for using the railway network, and public investment is repaid many times over through social and environmental benefits. Unfortunately we believe that Network Rail's estimate that rail freight volumes could double between 2006 and 2030 to over 50bn

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<sup>4</sup> RAIL magazine 842, 20 December 2017

<sup>5</sup> Value and Importance of Rail Freight, Network Rail 2010

<sup>6</sup> <https://www.raildeliverygroup.com/media-centre/press-releases/2015/183-2015-03-16.html>

<sup>7</sup> <http://www.freightonrail.org.uk/PDF/FoR%20Flyer%20Final.pdf>

<sup>8</sup> <http://www.networkrail.co.uk/asp/10439.aspx>

tonne-kms of freight moved<sup>9</sup> is extremely over-optimistic because this growth is based on an unconstrained network, which is not the reality at present.

9. Above we have already highlighted some of the current constraints and issues faced by rail freight operators that can make rail freight uncompetitive. Track access charging rates are another example of this, which we explore below. If a distance based lorry charging system were introduced, the system would be much fairer. If in addition to this a subsidy rewarding the social, environmental and economic benefits of rail freight were factored in to calculations for charges, in recognition of the fact that rail does not have the same impact as HGVs in terms of emissions, collisions, road infrastructure damage and congestion, it would make transporting freight by rail even more attractive and would hopefully influence transport infrastructure investment planning.

#### **1.4. What are the regulatory and legal issues that, if changed, could improve freight efficiency without increasing costs or reducing efficiency?**

10. ASLEF objects to any policies or regulations that put rail freight at a disadvantage or undermine freight access to the network in favour of passenger services. We believe that if the government were willing to act decisively to protect and grow freight on rail there are simple steps that could be taken that would be extremely effective.
11. Road freight is currently heavily subsidised and HGVs pay less than a third of the costs associated with their activities<sup>10</sup>, making it difficult for rail to compete. Unlike lorry operators, rail freight operators pay separately for their use of the rail network and whereas access charges for rail operators have increased by more than 20% RPI since 2011, fuel duty for HGVs has been frozen over the same period. We believe that the government ought to recognise congestion, collisions, road damage and air pollution in any discussion about road costs. Lorries have a higher environmental, safety, congestion and road maintenance cost than cars but these costs are paid for by taxpayers. We also support the introduction of a distance based lorry charging system designed to reduce the number of HGVs unnecessarily on the roads with empty or only partially full loads. On the other hand, freight track access charges do not even take into account the social and environmental advantages of rail freight. If access subsidies were introduced as part of a green policy reflecting these wider economic and environmental impacts, it would improve rail freight's viability and encourage more freight to move from roads to rail. A comment recently made by DB Cargo to Network Rail illustrates the operator's

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<sup>9</sup> MDS Transmodal road pricing freight June 2007

<sup>10</sup> <http://www.bettertransport.org.uk/new-research-britain's-lorries-receiving-£5bn-annual-subsidy>

frustration: "It is difficult to understand why freight operators as a whole have been allocated 13% of the total fixed costs when they only operate around 6% of the train miles"<sup>11</sup>.

12. With devolution to sub-national authorities, ASLEF is also concerned that the interests of freight operators, who work across more than one Network Rail route, may be marginalised, and freight paths will need protection. Under the new system each geographical route is preparing its own strategic plan, and there will be separate plans for the freight and national passenger operator (FNPO) route, for the national system operator (NSO) and for Network Rail's central functions, but it is not clear whether a centralised operational structure will be retained. Nationwide freight services cross over regional boundaries but we do not know what the status of the FNPO will be, how it will be funded, whether it will have the authority over geographical routes to control nationwide access on key corridors, timetabling and possession planning, or how interfaces with other routes will be managed. Industry and its customers need answers to these questions and certainty over whether an extension on current access rights is a realistic possibility for freight train operators, if they are to seriously consider planning to commit to rail for the future movement of their goods and materials.
13. In terms of infrastructure, we have mentioned above that local authorities should be encouraged to support planning applications for large strategic interchanges, protect land sites for freight terminals with good access to roads, rail and major construction projects, and specify a percentage of construction materials to be moved by rail. Barnet Council, for example, recently approved building a modern rail freight terminal on existing rail lands at Cricklewood to service a housing regeneration project. Without the rail terminal, building between 7,000-8,000 apartments would not be viable but with the Cricklewood terminal each train will remove the need for up to 85 HGVs on the roads in what is a busy urban area<sup>12</sup>.
14. We also urge the government to look at introducing clear directives and incentives to promote freight growth into TOCs' franchise contracts. If the requirement to do this were included in the regulations, it would make it more difficult to side-line rail freight.
15. The UK has signed up to legally binding climate change targets but simply professing to be in favour of cleaner, greener transport is not enough: Introducing regulations to force the industry to reduce emissions - by moving to rail freight, electrification and / or research into alternative fuels, for example - would be effective and would also be cost efficient in the long-term.

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<sup>11</sup> Local Transport Today letter 05 January 2018

<sup>12</sup> <http://www.bettertransport.org.uk/media/february/2018-cricklewood-rail-freight-terminal>

16. Ultimately, the freight industry requires certainty for planning. Short term expansions and contractions risk bringing the rail freight into decline. This is why, as a union, ASLEF has argued that the government should explore nationalising the freight industry to create the stability that it needs to bring the full benefits it can offer to Britain, economically, socially and environmentally.

## **2. How might the demand for freight develop and change over the next 20-30 years?**

17. Rail freight services are more exposed to the free market than franchise passenger services and have very tight margins. Coal and steel have long been the core business of the rail freight sector but the charge on trains carrying coal for electricity contributed to coal volumes falling at a much faster pace than had been anticipated. Recent decades have been reasonably successful for the industry but its failure to diversify into new markets sooner has left it vulnerable. Freight services carrying consumer goods to distribution centres, goods for export and stone from quarries have been forecast to grow but the downturn in coal and steel has left a shortfall which the traffic of consumer goods is only gradually able to fill. Network Rail's Freight Market Study projected annual growth in total rail freight volumes of about 3% per annum to 2043, with intermodal volumes forecast to increase by over 5% per annum and construction volumes forecast to grow by 1% per annum. However, we have noted above that this growth is based on an unconstrained network, and we therefore call the projections into question. It is ASLEF's view that the rising demand from new sectors with different requirements will put pressure on existing infrastructure capacity. Accommodating growth will only be possible if steps are taken to guarantee more rail freight capacity on key corridors and to ensure that growth is not hampered by congestion.
18. ASLEF fears that failure to protect the rail freight industry could have a very damaging effect on the railway system overall. Investing in infrastructure to develop trans-modal operations will be essential to improving freight connectivity. We need sites for freight terminals with good road and rail access so that our strategic interchanges are in the right locations for transshipment from rail connected hubs into low emissions vehicles. We would like to see strategic interchanges and rail connected hubs built with railheads close to infrastructure projects where practical. Also any infrastructure upgrades or enhancements should be designed to accommodate the length and weight of freight trains because failure to do this constrains the volume of freight that trains can carry.
19. At present it is unclear whether the freight and national passenger operator (FNPO) will be responsible for allocating access and timetabling connections, and whether access to freight paths will be guaranteed. This adds to the uncertainty around the future of freight and needs clarifying as soon as possible. Obviously the impact of closing lines to freight would damage the network's ability to meet

growing demands and would be an extremely short-sighted solution to current pressure of congestion on the lines.

20. The railway needs long term planning and the uncertainty around rail freight's future is currently resulting in difficulties recruiting for train drivers. Training drivers is a long process and, like acquiring infrastructure, decline cannot be quickly reversed. In Scotland freight has been in serious decline since the decline of the coal and steel industries, the closure of the Longannet power station and the depot at Hunterston. The number of rail freight drivers employed by DB Cargo in Scotland has decimated from 250 in the late nineties to just 40 today. In the last 18 months, the number of drivers employed by DB Cargo nationally has dropped from 1,118 to just 683. Other drivers are also considering retirement, leaving the industry or moving to passenger services where they expect better job security. With so many freight drivers leaving the industry, there is a risk that there could soon be too few drivers available to fulfil contracts when demand rises again.
  
21. Network Rail were unwilling to pay for the retention of train crew during non-engineering periods, meaning that there are now insufficient crew available to service big rail infrastructure upgrade projects on an adhoc basis. It must also be remembered that it is freight operators who carry out the essential ballast and infrastructure enhancement work on our rail network. Freight operators carry out the repair and maintenance of traction, rolling stock and infrastructure, without which TOCs would not be able to run any services. There are many rail infrastructure projects due to be undertaken in the coming years, much of which will be undertaken by freight operators but ASLEF is concerned that the industry is being allowed to decline too rapidly, which will threaten maintenance of the whole network.

### **3. What effects does congestion have on the efficiency of freight movement and emissions?**

22. Road congestion is estimated to cost businesses £17 billion a year and its impact in terms of pollution, making streets unpleasant places to be and delaying public transport journeys affects local residents' health and stress levels. Shops and businesses need freight vehicles to make deliveries but having too many on the roads reduces efficiency by causing delays and blocking roads to unload. ASLEF agrees that transport strategies should include plans to achieve fuller freight vans and a reduction in freight traffic during peak hours, but we would also argue for a more concerted effort to shift to a cross modal system with more freight transported on the railways.
  
23. We have already voiced our scepticism about platooning above, and outlined the practical and logistical reasons for this. Scheduling delivery times at quiet times of the day may partially relieve congestion but does nothing to tackle the fact that HGVs are a hazard (HGVs are over 6 times more likely than cars to be involved in fatal collisions on minor roads and are involved in almost half of fatal collisions on

motorways even though they only account for around 12% of miles driven<sup>13</sup>) and are far more polluting than rail freight. Furthermore, empty running is now at 30% and load utilisation is also at the highest level for years so we support calls for a move to a distance based lorry charging system to incentivise more efficient HGV use of the road network, as well as making it fairer for rail freight to compete<sup>14</sup>.

24. Rail freight already makes a major contribution to reducing road congestion in parts of the country which generate major flows of bulk traffic – such as the Mendips and the Peak District (for aggregates) and major ports. When the right infrastructure is in place, this is an extremely convenient way of delivering construction materials and remove waste. For example, an aggregates train can remove up to 136 HGVs<sup>15</sup> and each freight train can deliver enough materials to build 30 houses. In urban areas we encourage the development of cross modal consolidation and distribution centres capable of being rail served and from where goods can then be delivered by low emissions road vehicles including electric vans and e-bikes for light loads.
25. The UK has signed up to legally binding climate change targets and has a responsibility to take all measures possible to reduce air pollution. We know that rail freight currently enjoys considerable environmental advantages over road haulage: In 2014 HGVs contributed 17% of CO2 emissions despite making up only 5% of road vehicles, whereas both passenger and freight rail combined contributed less than 2%<sup>16</sup>. Rail freight creates 76% less carbon dioxide emissions, almost 90% less small particulate matter (PM10) and up to 17 times less nitrogen oxide emissions than the equivalent road journey<sup>17</sup>. And a tonne of goods can travel 246 miles by rail on a gallon of diesel, compared to only 88 miles by road<sup>18</sup>. Technological improvements will slowly improve the environmental performance of lorries, but overall rail will still be significantly 'greener' than road for the foreseeable future. The environmental benefits would have been even greater if the government had not decided to abandon plans to invest in electrification (in October 2009 it was estimated that 40 per cent of Britain's rail network was electrified and since 1997 only a further 60 more miles of track have been<sup>19</sup>). This was a short term money-saving solution but the investment in the infrastructure would have paid off. Electric trains are cleaner, greener, faster and more reliable than diesel operation. Electric traction virtually eliminates carbon monoxide and hydrocarbons and they can be powered by renewable sources of energy such as solar and wind power. Another benefit of electric trains is that they are lighter, cause less track wear and have longer operational lives, which reduces maintenance costs and means that they are more cost efficient. They have fewer moving parts meaning that maintenance of these trains is

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<sup>13</sup> DfT Traffic statistics table TRA0104, Accident statistics Table RAS 30017 September 2014

<sup>14</sup> <http://www.freightonrail.org.uk/ConsultationsDepartmentForTransportCallForEvidence.htm>

<sup>15</sup> Network Rail Value of Freight 2013

<sup>16</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/552492/rail-freight-strategy.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/552492/rail-freight-strategy.pdf)

<sup>17</sup> Value and Importance of Rail Freight, Network Rail 2010

<sup>18</sup> <http://www.networkrail.co.uk/wp-content/uploads/2016/11/The-Value-and-Importance-of-rail-Freight-summary-report.pdf>

<sup>19</sup> Commons Briefing paper SN05907, 27.07.17

simpler and cheaper, and energy consumption can be reduced using regenerative braking (slowing down trains can generate electricity which goes back into the network). The trains are also less noisy, which benefits people who live close to rail lines. Unfortunately, the government has reneged on many promises to invest in electrification and FOCs will not invest in electric until this decision is reversed and paths have been electrified nationally.

26. While ASLEF would welcome the introduction of alternative, sustainable, reliable and economic fuels but we do not see this as a realistic likelihood any time soon. It is not currently feasible to electrify HGVs because the batteries would weigh more than the payload of their load, and for trains we don't see hydrogen as an alternative because existing loading gauges limit tank carrying capacities. ASLEF would encourage investment into research for alternative fuels and would urge the government to provide operators with incentives to upgrade and modernise aging locomotives, but in the meantime we will continue to encourage the government to review its decision not to invest further in the electrification of our railways.

#### **5. How could new technologies be utilised to increase the efficiency and productivity of UK freight?**

27. The deployment of ERTMS (European Rail Traffic Management System) with the gradual installation of ETCS (European Train Control System) to provide in-cab instructions to train drivers, is considered to be particularly beneficial to freight drivers, who travel across the entire country, passing route boundaries and interacting with various types of train traffic and signals. upgrading the network's signalling on-train systems with this technology, which forms part of the country's Digital Railway Programme, can allow more trains to run on existing tracks and provide better connections. It can improve use of the network and provide greater flexibility in the timetable, but does not change the fact that ultimately, our network is at maximum capacity in many places and demand is growing.

#### **Closing comments:**

28. In conclusion rail freight offers many social and environmental benefits that make it a faster, greener, safer and more efficient way of transporting goods than roads. Although many political figures proclaim the clean, green virtues of rail freight, little has genuinely been done to promote growth. There needs to be a huge shift for change if this is to happen and we fear that we are still a long way from this. Meanwhile, the rail freight sector is in decline. It is ASLEF's view that the rail freight sector has been marginalised by passenger services and devolution could pose more of a threat if freight and national passenger operators (FNPOs) do not have enough authority to protect freight paths.

29. The decision to make short-term savings by downgrading plans to invest in electrification of lines was a shameful example of the transport secretary's short-term thinking. Investment in infrastructure has been inadequate and now we need major infrastructure projects to address the capacity constraints that prevent rail freight from growing to meet demand. All investment and new infrastructure should work for the weight and length of freight trains as well as passenger services. Rail hubs are required with the interchanges necessary for freight to be transferred between transport modes: This means sites for freight terminals with good road and rail access and cross modal consolidation and distribution centres capable of being rail served and from where goods can then be delivered by low emissions road vehicles including electric vans and e-bikes for light loads. We would like to see strategic interchanges and rail connected hubs built with railheads close to infrastructure projects where practical. The investment necessary to support growth in rail freight would be significant, but worthwhile, economically, socially and environmentally.
30. Failing this, the constraints and uncertainties around the future reliability of rail freight will increasingly push goods onto the roads and train drivers into other jobs. The current shortage of drivers following the redundancies last year cannot be quickly reversed when demand grows back, and if the industry is allowed to decline too rapidly, freight operators could struggle to undertake essential repair, maintenance and infrastructure enhancement work which would threaten the whole railway network. We hope that ASLEF's concerns and suggestions will be taken into account and would be happy to respond to any further questions the NIC may have.

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